BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

WESTERN ZONAL BENCH AT PUNE

BOOK No. 4-2025
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DATE 26-05-2025

MANGLAGAURI P. MAKWANA
NOTARY
GOVT. OF INDIA

APPEAL NO.26 OF 2025 (WZ)

IN THE MATTER OF:

GO GREEN FOUNDATION TRUST . ...Appellant

Versus

UNION OF INDIA, THROUGH SECRETARY,

MOEF&CC &
ORS. ...Respondent

NOTARY MANGLAGAURI P. MAKWANA GANDHINAGAR GUJARAT STATE REG NO.: 18024/2020 GOVERNMENT OF INDIA

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5.	**Annexure No. R-4** Copy of the Minutes of the 74th EAC meeting.	
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Place:
No.1 **Respondent**

Date: Through

(Advocate for the Respondent No.1 and 2)

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
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APPEAL NO.26 OF 2025 (WZ)

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COUNTER AFFIDAVIT ON BEHALF OF MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE AND EXPERT APPRASIAL COMMITTEE (EAC)

MOST RESPECTIFULLY SHOWETH:

I, Yogesh Kumar, working as Scientist "C" in Regional office of the Ministry of Environment, Forest & Climate Change, at Gandhinagar, the deponent herein does hereby solemnly affirm and state on oath as under: -

1. That I am duly authorized and competent to swear the present reply affidavit on behalf of Ministry of Environment, Forest and Climate Change (hereinafter referred as MoEFCC).
2. That the contents of the application, unless specifically admitted, are denied to the extent that they are inconsistent with submissions made hereinafter.
3. That the instant reply is being filed by the Answering Respondents without prejudice to his right to file a fuller and more detailed reply at a later stage, if so necessary.
4. That the appellant in the instant appeal has contested the Environmental Clearance (hereinafter referred to as the "impugned EC") granted on 12.12.2024 for Proposal No. IA/GJ/IND3/408164/2022 by the Ministry of Environment, Forest and Climate Change (MoEF&CC) to Greenfield Chemical Complex Ltd. (GHCL). The clearance pertains to a project that involves the production of 11,00,000 TPA of Light Soda Ash (LSA), 5,00,000 TPA of Dense Soda Ash (DSA), and 2,00,000 TPA of Sodium Bicarbonate (SBC). The proposed site is located near the village of Bada, Taluka

Mandvi, District Kutch, Gujarat. This project is categorized as 'A' under Schedule 4(e) (soda ash industry) and 1(d) (chemical industries) of the EIA Notification 2006, located in village Bada, Taluka Mandvi, District Kutch in Gujarat, alleging it to have been issued in blatant violation of EIA Notification, 2006.

5. That it is humbly submitted that the Answering Respondent in exercise of the powers conferred by Section 3 of the Environment (Protection) Act, 1986 read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, had notified the Environment Impact Assessment Notification, 2006 on 14.09.2006, (hereinafter referred to as the "EIA Notification, 2006") with its subsequent amendments. **A Copy of S.O.1533 (E) dated 14.09.2006 is annexed as Annexure R1/1.**

6. It is respectfully submitted that, under the provision of the EIA Notification, 2006, construction of new projects or activities or the expansion or modernization of existing projects or activities listed in the schedule annexed to the said notification entailing capacity addition with change in process and or technology shall be undertaken in any part of India, as applicable, only after receipt of the prior environment clearance from the Central Government or by the State Level Environment Impact Assessment Authority ("SEIAA"), as the case may be. Furthermore, it is submitted that SEIAA is duly constituted by the Central Government pursuant to sub-section (3) of Section 3 of the Environment (Protection) Act, 1986, in accordance with the procedures set forth in the EIA Notification, 2006, then the Ministry of Environment and Forests had notified the Coastal Regulation Zone Notification (CRZ), 1991 on 19.02.1991. In supersession of the CRZ Notification, 1991, the CRZ Notification, 2011 was notified on 06.01.2011 for regulation of developmental activities along the coastal stretches and to ensure the livelihood security to the fisher communities and other local communities, living in the coastal areas, to conserve and protect coastal stretches.

7. That it is further submitted that in suppression of the CRZ Notification, 2011, the CRZ Notification, 2019 was notified on 18.01.2019, having specific focus on conservation and management plans of Ecologically Sensitive Areas (ESAs) which did not feature in the CRZ Notification, 2011.

8. It is humbly submitted that as per paragraph 6 (i) of the CRZ Notification, 2019, *"All coastal States and Union territory administrations shall revise or update their respective coastal zone management plan (CZMP) framed under CRZ Notification, 2011 number S.O.19(E), dated 6th January, 2011, as per provisions of this notification and submit to the Ministry of Environment, Forest and Climate Change for approval at the earliest and all the project activities attracting the provisions of this notification shall be required to be appraised as per the updated CZMP under this notification and until and unless the CZMPs is so revised or updated, provisions of this notification shall not apply and the CZMP as per provisions of CRZ Notification, 2011 shall continue to be followed for appraisal and CRZ clearance to such projects."*

9. The EIA Notification, 2006, in Paragraph 7, stipulates four stages in the process of obtaining Environmental Clearance. Stage (1) is 'Screening', wherein the Expert Appraisal Committee or the State Expert Appraisal Committee takes the decision whether or not Environmental Impact Assessment Report has to be prepared for the proposed projects. Stage (2) is 'Scoping', wherein the Expert Appraisal Committee for category 'A' projects and the State Expert Appraisal Committee for category 'B' projects determines detailed and comprehensive Terms of Reference addressing all relevant environmental concerns for the preparation of an EIA Report in respect of the proposed project or activity for which the prior environmental clearance is sought. Stage (3) relates to public consultation and has two components- (i) a 'Public-hearing', which is conducted by the concerned State Pollution Control Board at the project site or in its close proximity, explaining all possible environment impacts and measures proposed in EMP; and (ii) obtaining written responses from other concerned persons who have a plausible stake in the environment aspects of the project or activity. Lastly, Stage (4) relates to appraisal of the project, wherein the detailed scrutiny by the EAC or the SEAC of the application and other documents, like the final EIA Report and outcome of public consultations relating including public hearing proceedings, submitted by the Project Proponent to regulatory authority concerned for grant of environment clearance, is conducted.

10. That as per S.O. 751(E) dated 17th February 2020 has specified that in order to streamline the process of scoping and bring the uniformity across the proposals, as a standard operating procedure, the Ministry has developed sector specific Standard Terms of References for all 39 class of projects or activities listed in the Schedule to the EIA Notification, 2006. The Terms of Reference for the projects or activities except for River valley and Hydro-electric projects, issued by the regulatory authority concerned, shall have the validity of **four years** from the date of issue. In the present case, the ToR was issued by the Ministry vide Letter No. IA-J-11011/293/2021-IA-II(I) dated 10th August 2021. In this context, it is further submitted that M/s GHCL submitted an application on 27th December 2023 for the grant of environmental clearance, which is well within the stipulated timeframe in accordance with the EIA Notification, 2006. **A copy S.O. 751(E) dated 17th February 2020 and ToR are annexed as Annexure 2 and Annexure 3 respectively.**

11. It is submitted that in the 74th, 78th, and 80th EAC meetings, the project proponent informed that they awarded the project to Council of Scientific and Industrial Research- National Environmental Engineering & Research Institute (CSIR-NEERI) in 2018. No NABET-accredited consultant under sector 4(e) was available at that time. NEERI is a nationally reputed organization, and it also prepared EIA reports earlier for similar soda ash industries. It is further submitted that based on the recommendation of the EAC (Industry-3), the EIA-EMP report was updated and validated by the QCI-NABET accredited Environmental Consultant for item 4 (e) Category 'A' of the schedule of EIA Notification 2006, namely M/s T. R. Associates. That the NABET-accredited consultant has carried out an additional 3 months of data collection, which is one season baseline study (December 2022 to February 2023), and incorporated in the addendum of the EIA report submitted to the EAC on 1st February 2024. Thereafter, the report was duly deliberated by EAC, wherein the consultant also submitted an undertaking that they have verified the EIA/EMP report and prepared an addendum report describing findings and observations. It was also presented to the EAC that NABET-accredited consultant has not observed any significant deviation in the EIA report prepared by the national repute organisation

NEERI. **A copy of minutes of 74th, 78th and 80th EAC meeting is annexed as Annexure 4, Annexure 5 and Annexure 6 respectively.**

12. It is humbly submitted that CSIR - National Institute of Oceanography (NIO), was established by the Council of Scientific and Industrial Research Act, 1942, empowering it to conduct scientific research, including environmental and marine studies. It is submitted that CSIR-NIO's mandate includes marine environmental monitoring, ecological assessments, and sustainable resource management, qualifying it as a competent body for preparing EIA reports. That, CSIR-NIO functions under the Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology, which recognizes its expertise in oceanography and environmental research. Being a government-affiliated research institute, CSIR-NIO is entrusted with conducting environmental assessments in various industrial sectors.

13. It is further submitted that the EAC members deliberated the public hearing proceeding during the 78th EAC meeting held on 30th April 2024. Committee observed that the 1st public hearing was held on 06th April 2022. Advertisement of the public hearing schedule was given in the local daily newspaper in Gujarati, *Divya Bhaskar*, dated 3rd March 2022, and the English newspaper, the *Times of India*, dated 4th March 2022, which is 30 days before the public hearing, as mentioned in the EIA notification 2006. It was informed to EAC that PP also submitted the draft EIA report to concerned authorities and the executive summary to affected villages in line with the EIA notification. However, public hearing was postponed due to unavoidable circumstances. Later the re-advertisement of reschedule of the public hearing was given in the local daily newspaper in Gujarati, *Divya Bhaskar*, dated 30th September 2022, and the English newspaper, the *Times of India*, dated 1th October 2022 wherein, the public hearing was rescheduled to 17th October 2022 at 11:00 AM at the project site (Survey No. 432, Village: Bada, Taluka: Mandvi, District: Kutch) in accordance with the S.O. 2163(E) dated 9th May 2022. The rescheduled public hearing was presided over by the Sub-Divisional Magistrate & Deputy Collector, Mundra-Kutch. Thereafter EAC in its several meetings, in detail deliberated the issues raised during

the public hearing, along with the action plan to address it. **A copy of the S.O. 2163(E) dated 9th May 2022 annexed as Annexure 7.**

14. It has been further noted that since the CRZ component is part of the EC proposal, the EAC deliberated the recommendations of the Gujarat Coastal Zone Management Authority (GCZMA), issued by the Forest & Environment Department, Government of Gujarat, vide file no. ENV/10/2021/184/T-cell dated 26th December 2023 to M/s Gujarat Heavy Chemicals Limited located at village Bada, Taluka-Mandvi, District-Kutch for the grant of CRZ clearance to the proposed Greenfield Chemical Complex's seawater intake and effluent disposal facilities .

15. It is further submitted that EAC deliberated on forest clearance obtained by PP as a prior mandatory condition for fresh EC in the instant Project. In this context, it is submitted that the Regional Office, Gandhinagar, MoEF&CC vide letter dated 04.01.2024 has granted final (stage II) approval of the Central Government under the Forest (Conservation) Act, 1980, for the proposed diversion of 0.9689 ha of unclassed forest land for laying part of the seawater intake and effluent disposal pipeline and passage for related construction pipeline and passage for construction equipment movement in Kutch District.

16. It is further submitted that the EAC deliberated on the issue of ecology and biodiversity conservation. In this regard, the report prepared by the Gujarat Institute of Desert Ecology confirms that the project site does not fall within a 10 km radius of any protected area, such as a national park, wildlife sanctuary, or eco-sensitive zone. Furthermore, the Chief Wildlife Warden, Gujarat, vide Letter No. WLP/32/A/50-52/2023-24 dated 24.04.2023, has granted approval for the conservation plan of selected Schedule I species for the greenfield project of M/s GHCL at Bada Village, Mandvi, Kutch, Gujarat.

17. It is further submitted that based on the recommendation of MoEFCC, EAC during its 84th meeting held on 21st –22nd August 2024, constituted a sub-committee of the EAC. The sub-committee along with representatives from the Regional Office, Gandhinagar, and the Gujarat Pollution Control Board (GPCB), Kutch (West) conducted the site visit on 09.10.2024 and subsequently provided site visit report.

EAC in its 87th meeting deliberated upon site visit report of sub-committee and recommended the proposal for grant of Environmental and CRZ clearance to the greenfield chemical complex of M/s GHCL at Bada Village, Mandvi, Kutch, Gujarat. Based on the EAC recommendations, MoEFCC has granted Environmental and CRZ clearance vide letter no. IAJ-11011/293/2021 IA-II(I) dated 12.12.2024 with specific and general conditions as environmental safeguards. **A copy of the minutes of the 84th and 87th Expert Appraisal Committee meetings and EC dated 12.12.2024 is annexed as Annexure 8, Annexure 9 and Annexure 10, respectively.**

18. It is respectfully submitted that the present Appeal has been filed against the Environmental Clearance granted by Respondent No. 1 – Ministry of Environment, Forest and Climate Change (MoEF&CC) on 12.12.2024 in favour of Respondent No. 13. It is further submitted that a similar matter, bearing Appeal No. 19 of 2025, is already pending consideration before this Hon'ble Tribunal. In view of the overlapping issues involved, it is most respectfully prayed that the present Appeal may kindly be clubbed with Appeal No. 19 of 2025, in the interest of judicial economy and to avoid duplication of proceedings, thereby saving the valuable time of this Hon'ble Tribunal.

19. That as per Environmental Clearance dated 12.12.2024 annexed as annexure R/10 states that any appeal against EC shall lie with the National Green Tribunal, if preferred within the period of thirty days from the date of issuance of that EC as prescribed in section 16 of the National Green Tribunal Act.

20. That, in view of the aforementioned facts and circumstances, this Hon'ble Tribunal may kindly be pleased to pass appropriate order(s)/directions as the Hon'ble Tribunal may deem fit and appropriate in the interest of justice.

NOTARY MANGLAGAURI P. MAKWANA GANDHINAGAR GUJARAT STATE REG NO. : 18024/2020 EXPIRY DATE 02-02-2030 GOVERNMENT OF INDIA

DEPONENT

डॉ. योगेश कुमार / Dr. Yogesh Kumar
वैज्ञानिक 'सी' / Scientist 'C'
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय,
Ministry of Enviroment, Forest & Climate Change,
भारत सरकार / Govt. of India
ए. क्षे. का., गाँधीनगर (गुजरात) / IRO,Gandhinagar(Gujarat)

VERIFICATION

Verified at Gandhinagar on this26th day of May, 2025 that the contents of this affidavit based on official record(s) maintained and information available in the office are true and correct, no part of it is false and nothing has been concealed there from.

DEPONENT

डॉ. योगेश कुमार / Dr. Yogesh Kumar
वैज्ञानिक 'सी' / Scientist 'C'
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय,
Ministry of Enviroment, Forest & Climate Change,
भारत सरकार / Govt. of India
ए. क्षे. का., गाँधीनगर (गुजरात) / IRO,Gandhinagar(Gujarat)

NOTARY MANGLAGAURI P. MAKWANA GANDHINAGAR GUJARAT STATE REG NO. : 18024 /2020 EXPIRY DATE 02-02-2030 GOVERNMENT OF INDIA

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IDENTIFIED BY ME

ADVOCATE/PERSON
Adv. Enr. No.....
Name.....
Add:.....
Date.....
26 MAY 2025

SOLEMNLY AFFIRMED BEFORE ME

MANGLAGAURI P. MAKWANA
NOTARY
GOVT. OF INDIA
26 MAY 2025

NOTARY MANGLAGAURI P. MAKWANA GANDHINAGAR GUJARAT STATE REG NO. : 18024 /2020 EXPIRY DATE 02-02-2030 GOVERNMENT OF INDIA

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भारत का राजपत्र
The Gazette of India

असाधारण
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)
PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं. 1067] नई दिल्ली, बृहस्पतिवार, सितम्बर 14, 2006/भाद्र 23, 1928
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पर्यावरण और वन मंत्रालय

अधिसूचना

नई दिल्ली, 14 सितम्बर, 2006

का.आ. 1533(अ).—केंद्रीय सरकार या केन्द्रीय सरकार द्वारा राज्य सरकार या संबंधित संघ राज्यक्षेत्र प्रशासन के परामर्श से गठित किए जाने वाले राज्य या संघ राज्यक्षेत्र स्तर पर्यावरण समाघात निर्धारण प्राधिकरण द्वारा इस अधिसूचना के प्रयोजन के लिए पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उपधारा (3) के अधीन संघ मंत्रिमंडल द्वारा 18 मई, 2006 को अनुमोदित राष्ट्रीय पर्यावरण नीति और अधिसूचना में विनिर्दिष्ट प्रक्रिया के उद्देश्यों के अनुसार जब तक पूर्व पर्यावरणीय अनापत्ति अभिलिखित नहीं हो जाती है, भारत के किसी भाग में[1], नई परियोजनाओं या क्रियाकलापों पर या इस अधिसूचना की अनुसूची में यथा उपवर्णित उनके सक्षम पर्यावरणीय समाघातों पर विद्यमान परियोजनाओं या क्रियाकलापों के विस्तार या आधुनिकीकरण पर कतिपय निर्बंधन और प्रतिषेध अधिरोपित करने के लिए, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के अधीन एक प्रारूप अधिसूचना भारत के राजपत्र, असाधारण, भाग 2, खंड 3, उपखंड (ii) में, का0आ0 सं0 1324(अ), तारीख 15 सितंबर, 2005 द्वारा प्रकाशित की गई थी जिसमें उन सभी व्यक्तियों से, जिनके उनसे प्रभावित होने की संभावना है, उस तारीख से, जिसको उक्त अधिसूचना को अंतर्विष्ट करने वाले राजपत्र की प्रतियां जनता को उपलब्ध करा दी गई थीं, साठ दिन की अवधि के भीतर आक्षेप और सुझाव आमंत्रित किए गए थे ;

और उक्त अधिसूचना की प्रतियां 15 सितंबर, 2005 को जनता को उपलब्ध करा दी गई थीं ;

और ऊपर उल्लिखित प्रारूप अधिसूचना के उत्तर में प्राप्त सभी आपेक्षों और सुझावों पर केन्द्रीय सरकार ने सम्यक् रूप से विचार कर लिया है ।

अतः, अब केंद्रीय सरकार, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उपधारा (1) और उपधारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, और अधिसूचना सं0 का.आ. 60(अ), तारीख 27 जनवरी, 1994 को उन बातों के सिवाए अधिक्रांत करते हुए, जिन्हें ऐसे अधिक्रमण से पूर्व किया गया है या करने का लोप किया गया है, यह निदेश देती है कि इसके प्रकाशन की तारीख से ही, नई परियोजनाओं या क्रियाकलापों का अपेक्षित संनिर्माण या इस अधिसूचना की अनुसूची में सूचीबद्ध विद्यमान परियोजनाओं या क्रियाकलापों का विस्तार या आधुनिकीकरण प्रक्रिया और या प्रौद्योगिकी में परिवर्तन सहित क्षमता में परिवर्धन करते हुए भारत के किसी भाग में, यथास्थिति, केन्द्रीय सरकार द्वारा या इस अधिसूचना मे इसमें इसके पश्चात् विनिर्दिष्ट प्रक्रिया के अनुसार उक्त अधिनियम की धारा 3 के

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[1] भारत का राज्यक्षेत्रीय सागर खंड और अनन्य आर्थिक जोन सम्मिलित है ।

अधीन केन्द्रीय सरकार द्वारा सम्यक् रूप से गठित राज्य स्तर पर्यावरण समाघात निर्धारण प्राधिकरण द्वारा पूर्व पर्यावरण अनापत्ति के पश्चात् ही किया जाएगा ।

2. पूर्व पर्यावरणीय अनापत्ति की अपेक्षाएं (ई.सी.) :-

निम्नलिखित परियोजनाओं या क्रियाकलापों के लिए, परियोजना प्रबंधन द्वारा भूमि को अभिप्राप्त करने के सिवाय, कोई संनिर्माण कार्य या भूमि तैयार करने से पूर्व उक्त अनुसूची में प्रवर्ग 'ख' के अंतर्गत आने वाले विषयों के लिए संबंधित विनियामक प्राधिकरण से, जिसे अनुसूची में 'क' के अंतर्गत आने वाले विषयों के लिए इसमें इसके पश्चात् केन्द्रीय सरकार में पर्यावरण और वन मंत्रालय कहा गया है, और राज्य स्तर पर राज्य पर्यावरण समाघात निर्धारण प्राधिकरण कहा गया है, पूर्व पर्यावरणीय अनापत्ति अपेक्षित होगी जब परियोजना या क्रियाकलाप आरंभ किया जाता है ।

(i) इस अधिसूचना की अनुसूची में सूचीबद्ध सभी नई परियोजनाएं या क्रियाकलाप ;

(ii) इस अधिसूचना की अनुसूची में सूचीबद्ध विद्यमान परियोजनाओं या क्रियाकलापों का, संबंधित क्षेत्र के लिए अर्थात् परियोजनाओं या क्रियाकलापों के लिए जो विस्तार या आधुनिकीकरण के पश्चात् अनुसूची में दी गई अधिकतम सीमाओं को पार कर लेते हैं, क्षमता में परिवर्धन सहित विस्तार या आधुनिकीकरण ;

(iii) विनिर्दिष्ट रेंज से परे अनुसूची में सम्मिलित किसी विद्यमान विनिर्माणकर्ता यूनिट में उत्पाद मिश्रण में कोई परिवर्तन ।

3. राज्य स्तर पर्यावरण समाघात निर्धारण प्राधिकरण :-(1) कोई राज्य स्तर पर्यावरण समाघात निर्धारण प्राधिकरण, जिसे इसमे इसके पश्चात् एसईआईएए कहा गया है, केन्द्रीय सरकार द्वारा पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उपधारा (3) के अधीन गठित किया जाएगा जिसमें तीन सदस्य होंगे जिसके अंतर्गत एक अध्यक्ष और एक सदस्य-सचिव, राज्य सरकार या संबंधित संघ राज्यक्षेत्र प्रशासन द्वारा नामनिर्देशित किए जाएंगे ।

(2) सदस्य-सचिव संबंधित राज्य सरकार या संघ राज्यक्षेत्र प्रशासन का सेवारत अधिकारी होगा जो पर्यावरण विधियों से परिचित होगा ।

(3) अन्य दो सदस्य या तो वृत्तिक या विशेषज्ञ होंगे जो इस अधिसूचना के परिशिष्ट VI में दी गई पात्रता कसौटी को पूरा करते हों ।

(4) ऊपर उपपैरा (3) में विनिर्दिष्ट सदस्यों में से एक सदस्य जो पर्यावरण समाघात निर्धारण प्रक्रिया में विशेषज्ञ हो, एसईआईएए का अध्यक्ष होगा ।

(5) राज्य सरकार या संघ राज्यक्षेत्र प्रशासन उपपैरा (3) से उपपैरा (4) में निर्दिष्ट सदस्यों और अध्यक्ष के नामों को केन्द्रीय सरकार को अग्रेषित करेगी और केन्द्रीय सरकार नामों के प्राप्ति की तारीख से तीस दिन के भीतर इस अधिसूचना के प्रयोजनों के लिए एसईआईएए को एक प्राधिकरण के रूप में गठित करेगी ।

(6) गैर पदधारी सदस्य और अध्यक्ष की (प्राधिकरण को केन्द्रीय सरकार द्वारा गठित करने वाली अधिसूचना के प्रकाशन की तारीख से) तीन वर्षों की नियत पदावधि होगी ।

(7) एसईआईएए के सभी विनिश्चय एकमत से होंगे और किसी बैठक में लिए जाएंगे ।

4. परियोजना और क्रियाकलापों का प्रवर्गीकरण :–

(i) सभी परियोजनाएं या क्रियाकलाप मुख्यतः दो प्रवर्गों में प्रवर्गीकृत हैं- प्रवर्ग 'क' और प्रवर्ग 'ख' सक्षम समाघात की स्थानिक सीमा और मानव स्वास्थ्य और प्राकृतिक तथा मानव निर्मित संसाधनों पर आधारित हैं ।

(ii) अनुसूची में प्रवर्ग 'क' के रूप में सम्मिलित सभी परियोजनाओं या क्रियाकलापों, जिसके अंतर्गत विद्यमान परियोजनाओं या क्रियाकलापों का विस्तार और आधुनिकीकरण तथा उत्पाद मिश्रण में परिवर्तन सम्मिलित है, के लिए, इस अधिसूचना के प्रयोजनों के लिए केन्द्रीय सरकार द्वारा गठित की जाने वाली किसी विशेषज्ञ आंकलन समिति की सिफारिशों पर भारत सरकार में पर्यावरण और वन मंत्रालय से पूर्व पर्यावरण अनापत्ति अपेक्षित होगी ;

(iii) अनुसूची में प्रवर्ग 'ख' के रूप में सम्मिलित सभी परियोजनाओं या क्रियाकलापों, जिसके अंतर्गत पैरा 2 के उपपैरा (ii) में यथाविनिर्दिष्ट विद्यमान परियोजनाओं या क्रियाकलापों का विस्तार और आधुनिकीकरण या पैरा 2 के उपपैरा (iii) में यथाविनिर्दिष्ट उत्पाद मिश्रण में परिवर्तन भी हैं, किन्तु जिसमें वे सम्मिलित नहीं हैं जो अनुसूची में निश्चित की गई साधारण शर्तों को पूरा करते हैं, राज्य/संघ राज्यक्षेत्र पर्यावरण समाघात निर्धारण प्राधिकरण से पूर्व पर्यावरणीय अनापत्ति अपेक्षित होगी । एसईआईएए का अपना विनिश्चय, इस इस अधिसूचना में गठित की जाने वाली किसी राज्य या संघ राज्यक्षेत्र स्तर विशेषज्ञ आंकलन समिति (एसईएसी) की सिफारिशों पर आधारित होगा । एसईआईएए सम्यक् रूप से गठित एसईआईएए या एसईएसी की अनुपस्थिति में, कोई प्रवर्ग 'ख' परियोजना प्रवर्ग 'क' परियोजना समझी जाएगी ;

5. **स्क्रीनिंग, विस्तारण और आंकलन समिति :-** केंद्रीय सरकार के स्तर पर वही विशेषज्ञ आंकलन समिति और राज्य या संघ राज्य स्तर पर राज्य विशेषज्ञ आंकलन समिति (जिन्हें इसमें इसके पश्चात् ईएसी और एसईएसी कहा गया है) क्रमशः प्रवर्ग 'क' और प्रवर्ग 'ख' परियोजनाओं या क्रियाकलापों की स्क्रीनिंग, विस्तारण और आंकलन करेंगी । ईएसी और एसईएसी की प्रत्येक मास में कम से कम एक बार बैठक होगी ।

(क) ईएसी की संरचना परिशिष्ट VI में दी जाएगी । राज्य या संघ राज्यक्षेत्र स्तर पर एसईएसी का गठन संबंधित राज्य सरकार या संघ राज्यक्षेत्र प्रशासन के परामर्श से समान संरचना सहित गठन किया जाएगा ।

(ख) केंद्रीय सरकार, संबद्ध राज्य सरकार या संघ राज्यक्षेत्र प्रशासन की पूर्व सहमति से प्रशासनिक सुविधा और लागत के कारणों से एक या अधिक राज्य या संघ राज्यक्षेत्र के लिए एक एसईएसी का गठन कर सकेगी ।

(ग) विशेषज्ञ आंकलन समिति और राज्य विशेषज्ञ आंकलन समिति तीन वर्ष की अवधि के लिए गठित की जाएगी ।

(घ) संबंधित विशेषज्ञ आंकलन समिति और राज्य विशेषज्ञ आंकलन समिति के प्राधिकृत सदस्य उस परियोजना या क्रियाकलाप के संबंध में जिसके लिए पूर्व पर्यावरणीय अनापत्ति मांगी गई है, को स्क्रीन करने या विस्तार करने या आंकलन के प्रयोजनों के लिए आवेदक को जो निरीक्षण के लिए आवश्यक सुविधाएं देगा, कम से कम सात दिन की पूर्व सूचना देंगे ।

(ङ) विशेषज्ञ आंकलन समिति और राज्य विशेषज्ञ आंकलन समिति संयुक्त दायित्व के सिद्धांत पर कृत्य करेगी । अध्यक्ष प्रत्येक मामले में सहमति बनाने का प्रयास करेगा और सहमति नहीं बन पाती है तो बहुमत का विचार माना जाएगा ।

6. **पूर्व पर्यावरणीय अनापत्ति के लिए आवेदन (ईसी) :-** सभी मामलों में पर्यावरणीय अनापत्ति मांगने के लिए कोई आवेदन, परियोजना और/या क्रियाकलापों के लिए, जिससे आवेदन संबंधित है, आवेदक द्वारा स्थल पर किसी सन्निर्माण क्रियाकलाप या भूमि की तैयारी के प्रारंभ के पूर्व, पूर्वेक्षित स्थल (स्थलों) की पहचान के पश्चात् परिशिष्ट 2 दिया गया है, यदि लागू हों, इससे संलग्न प्ररूप 1 और अनुपूरक प्ररूप 1क में किया जाएगा । आवेदक, उसके सिवाय, सन्निर्माण परियोजनाओं या क्रियाकलापों (अनुसूची की मद 8) के मामले में प्ररूप 1 और अनुपूरक प्ररूप 1क के अतिरिक्त पूर्व साध्यता परियोजना रिपोर्ट की एक प्रति, पूर्व साध्यता रिपोर्ट के स्थान पर धारणा योजना की एक प्रति आवेदन के साथ पेश करेगा ।

7. (i) **नई परियोजनाओं के लिए पूर्व पर्यावरणीय अनापत्ति (ईसी) प्रक्रिया के प्रक्रम :-** नई परियोजनाओं के लिए पर्यावरणीय अनापत्ति प्रक्रिया में अधिकतम चार प्रक्रम समाविष्ट होंगे, जिनमें से सभी इस अधिसूचना में नीचे यथाउपवर्णित विशिष्ट मामलों में लागू नहीं होंगे, ये चार प्रक्रम श्रृंखलाबद्ध क्रम में होंगे :-

- प्रक्रम (1) स्क्रीनिंग (केवल प्रवर्ग 'ख' परियोजनाओं और क्रियाकलापों के लिए)
- प्रक्रम (2) विस्तारण
- प्रक्रम (3) लोक परामर्श
- प्रक्रम (4) आंकलन

I. प्रक्रम (1) - स्क्रीनिंग :

प्रवर्ग 'ख' परियोजनाओं या क्रियाकलापों के मामले में, यह प्रक्रम परियोजना की प्रकृति और अवस्थिति विनिर्देश पर आधारित पर्यावरणीय अनापत्ति मंजूर करने से पूर्व उसके आंकलन के लिए कोई पर्यावरणीय समाघात निर्धारण रिपोर्ट तैयार करने के लिए यह अवधारण करने के लिए कि परियोजना या क्रियाकलाप के लिए आगे पर्यावरणीय अध्ययन करना अपेक्षित है या नहीं संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति (एसईएसी) द्वारा प्ररूप 1 में पूर्व पर्यावरणीय अनापत्ति मांगने के लिए किसी आवेदन की संवीक्षा होगी । कोई पर्यावरणीय समाघात निर्धारण रिपोर्ट की अपेक्षा करने वाली परियोजनाओं को प्रवर्ग "ख1" कहा जाएगा और शेष परियोजनाओं को प्रवर्ग "ख2" कहा जाएगा और उसके लिए कोई पर्यावरणीय समाघात निर्धारण रिपोर्ट अपेक्षित नहीं होगी । मद 8ख के सिवाय परियोजनाओं के ख 1 या ख2 में प्रवर्गीकरण के लिए पर्यावरण और वन मंत्रालय समय-समय पर समुचित मार्गदर्शक सिद्धांत जारी करेगा ।

II. प्रक्रम (2) विस्तारण :

(i) उस प्रक्रिया को निर्दिष्ट करता है जिसके द्वारा प्रवर्ग 'क' परियोजनाओं या क्रियाकलापों के मामले में विशेषज्ञ आंकलन समिति, और प्रवर्ग 'ख1' परियोजनाओं या क्रियाकलापों के मामले में, राज्य स्तर विशेषज्ञ आंकलन समिति, जिसके अंतर्गत विद्यमान परियोजनाओं या क्रियाकलापों के विस्तार और/या आधुनिकीकरण और/या उत्पाद मिश्रण में परिवर्तन के विस्तार, सौपे जाने वाले विस्तृत और व्यापक कार्य अवधारित करने के लिए, उस परियोजना या क्रियाकलाप के संबंध में कोई पर्यावरणीय समाघात निर्धारण रिपोर्ट तैयार करने के लिए सभी सुसंगत पर्यावरणीय समुत्थानों को, जिसके लिए पूर्व पर्यावरणीय अनापत्ति ईप्सित की गई है, आवेदन सम्मिलित हैं । विशेषज्ञ आंकलन समिति या राज्य स्तर विशेषज्ञ आंकलन समिति विहित आवेदन प्ररूप 1/प्ररूप 1क में दी गई जानकारी के आधार पर सौंपे जाने वाले कार्य अवधारित करेगी, जिसके अंतर्गत आवेदक द्वारा सौंपे जाने वाले प्रस्थापित कार्य, किसी विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर आंकलन समिति के किसी सब ग्रुप द्वारा देखा गया कोई स्थल, यदि विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा आवश्यक समझा जाए, आवेदक द्वारा सुझाए गए सौंपे जाने वाले कार्य और अन्य सूचना जो विशेषज्ञ आंकलन समिति या राज्य स्तर विशेषज्ञ आंकलन समिति के पास उपलब्ध हो, सम्मिलित हैं । अनुसूची की मद 8 में प्रवर्ग ख के रूप में सूचीबद्ध सभी परियोजनाओं और क्रियाकलापों (संनिर्माण, नगरी/वाणिज्यिक काम्प्लैक्स/आवासन) के लिए विस्तार अपेक्षित नहीं होगा और उनका आंकलन प्ररूप 1/प्ररूप 1क और धारणा योजना के आधार पर किया जाएगा ।

(ii) सौंपे गए कृत्यों को प्ररूप 1 की प्राप्ति के साठ दिनों के भीतर विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा आवेदक को प्रेषित किया जाएगा । अनुसूची के प्रवर्ग क हाइड्रोक्लेक्ट्रिक परियोजना मद 1 (ग) (i) के मामले में सौंपे गए कृत्यों को पूर्व संनिर्माण क्रियाकलापों के लिए अनापत्ति सहित प्रेषित किया जाएगा । यदि सौंपे गए कृत्यों को अंतिम रूप नहीं दिया गया है और प्ररूप 1 की प्राप्ति के साठ दिनों के भीतर आवेदक को प्रेषित किया जाता है तो आवेदक द्वारा सुझाए गए सौंपे जाने वाले कृत्य ईआईए अध्ययन के लिए अनुमोदित अंतिम सौंपे गए कृत्यों के रूप में समझे जाएंगे । अनुमोदित सौंपे गए कृत्य, पर्यावरण और वन मंत्रालय तथा संबंधित राज्य स्तर पर्यावरण समाघात निर्धारण प्राधिकरण के लिए वेबसाइट पर प्रदर्शित किए जाएंगे ।

(iii) इसी प्रक्रम पर संबंधित विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की सिफारिश पर संबंधित विनियामक प्राधिकरण द्वारा पूर्व पर्यावरणीय अनापत्ति के लिए आवेदनों को नामंजूर किया जा सकेगा । ऐसे नामंजूर किए जाने की दशा में, विनिश्चय को उसके कारणों सहित आवेदक को, आवेदन की प्राप्ति के साठ दिनों के भीतर लिखित में संसूचित किया जाएगा ।

III प्रक्रम (3) लोक परामर्श

(i) "लोक परामर्श" उस प्रक्रिया को निर्दिष्ट करता है जिसके द्वारा स्थानीय प्रभावी व्यक्तियों और ऐसे अन्य व्यक्तियों की चिंताओं को, जिनका परियोजना या क्रियाकलापों के पर्यावरणीय समाघातों में न्यायसंगत आधार है, समुचित रूप में अभिकल्पित परियोजना या क्रियाकलाप में संबंधित सभी सामग्री को ध्यान में रखते हुए सुनिश्चित किया जाएगा । सभी प्रवर्ग " क" और प्रवर्ग "ख1" परियोजनाएं या क्रियाकलाप निम्नलिखित के सिवाय लोक परामर्श करेंगे :-

(क) सिंचाई परियोजनाओं का आधुनिकीकरण (अनुसूची की मद 1(ग) (ii))।

(ख) संबंधित प्राधिकारियों द्वारा अनुमोदित औद्योगिक संपदाओं या पार्कों के भीतर अवस्थित सभी परियोजनाएं या क्रियाकलाप (अनुसूची की मद 7(ग)) और जिन्हें ऐसे अनुमोदन में अननुज्ञात नहीं किया जाता है ।

(ग) सड़कों और राजमार्गों का विस्तार (अनुसूची की मद 7(च))जिनमें भूमि का कोई और अर्जन अंतर्वलित नहीं है ।

(घ) सभी भवन/संनिर्माण परियोजनाएं/क्षेत्र विकास परियोजनाएं और नगरीय योजनाएं (मद 8)।

(ङ) सभी प्रवर्ग ख 2' परियोजनाएं और क्रियाकलाप ।

(च) केन्द्रीय सरकार द्वारा यथा अवधारित राष्ट्रीय रक्षा और सुरक्षा से संबंधित सभी परियोजनाएं और क्रियाकलाप या जिसमें अन्य युक्तगत विचार अंतर्वलित हैं ।

(ii) लोक परामर्श में साधारणतया दो घटक समाविष्ट होंगे :-

(क) स्थानीय प्रभावित व्यक्तियों की चिंताओं को सुनिश्चित करने के लिए परिशिष्ट 4 में विहित रीति में की जाने वाली स्थल पर या उसके निकट परिसर में जिला वार कोई लोक सुनवाई ;

(ख) परियोजना या क्रियाकलाप के पर्यावरणीय पहलुओं में कोई न्यायसंगत आधार रखने वाले अन्य संबंधित व्यक्तियों से लिखित में प्रतिक्रियाएं प्राप्त करना ।

(iii) स्थल (स्थलों) पर या उसके निकट परिसर में सभी मामलों में लोक सुनवाई विनिर्दिष्ट रीति में संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति द्वारा की जाएगी और कार्यवाहियों को आवेदक से प्राप्त अनुरोध के पैंतालीस दिनों के भीतर संबंधित विनियामक प्राधिकरण को अग्रेषित किया जाएगा ।

(iv) यदि संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्य क्षेत्र प्रदूषण नियंत्रण समिति लोक सुनवाई नहीं करती है और लोक सनुवाई को विनिर्दिष्ट अवधि के भीतर पूरी नहीं करती है और/या लोक सुनवाई की कार्यवाहियां को विहित अवधि के भीतर यथाउपर्युक्त संबंधित विनियामक प्राधिकरण को प्रेषित नहीं करती है तो विनियामक प्राधिकरण अन्य लोक अभिकरण या प्राधिकरण को, जो विनियामक प्राधिकरण का अधीनस्थ नहीं है, प्रक्रिया को पैंतालीस दिनों की और अवधि के भीतर पूरा करने के लिए लगाएगी ।

(v) यदि ऊपर उपपैरा (iii) के अधीन नामनिर्दिष्ट लोक अभिकरण या प्राधिकरण, संबंधित विनियामक प्राधिकरण को यह रिपोर्ट करता है, कि स्थानीय अवस्थिति के कारण लोक सुनवाई करना संभव नहीं है, तो किसी रीति में स्पष्ट रूप से अभिव्यक्त किए जाने वाले संबंधित स्थानीय व्यक्तियों के विचारों का समर्थन करेंगे । वह उस तथ्य की रिपोर्ट संबंधित विनियामक प्राधिकरण को ब्यौरेवार देगा जो रिपोर्ट पर और अन्य विश्वसनीय सूचना पर सम्यक् रूप से विचार करने के पश्चात्, जिसका लोक परामर्श के लिए विनिश्चय किया गया है, उस दशा में जिसे लोक सुनवाई में सम्मिलित करने की आवश्यकता है, रिपोर्ट करेगा ।

(vi) परियोजना या क्रियाकलापों के पर्यावरणीय पहलुओं में कोई न्यायसंगत आधार रखने वाले अन्य संबंधित व्यक्तियों से लिखित में प्रक्रिया अभिप्राप्त करने के लिए, संबंधित विनियामक प्राधिकरण और राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति, आवेदक द्वारा परिशिष्ट 3क में दिए गए प्ररूप में तैयार की गई संक्षिप्त ईआईए रिपोर्ट को उनके वेबसाइट पर देते हुए ऐसे संबंधित व्यक्तियों से लोक सुनवाई की व्यवस्था के लिए किसी लिखित अनुरोध की प्राप्ति के सात दिनों के भीतर प्रतिक्रियाएं प्राप्त करेंगी । गोपनीय सूचना, जिसके अंतर्गत प्रकट न करने योग्य या विधिक रूप से विशेषाधिकार प्राप्त सूचना, जिसमें बौद्धिक संपदा अधिकार अंतर्वलित हैं, आवेदन में विनिर्दिष्ट स्रोत, वेबसाइट पर नहीं रखे जाएंगे । संबंधित विनियामक प्राधिकरण, परियोजना या क्रियाकलाप की बाबत विस्तृत प्रचार को सुनिश्चित करने के लिए अन्य समुचित मीडिया का उपयोग भी कर सकेगा । विनियामक प्राधिकरण, तथापि लोक सुनवाई की तारीख तक निरीक्षण के लिए प्रारूप ईआईए रिपोर्ट किसी संबंधित व्यक्ति से, सामान्य कार्यालय घंटों के दौरान अधिसूचित स्थान पर किसी लिखित अनुरोध पर उपलब्ध कराएगा । इस लोक परामर्श प्रक्रिया के भाग के रूप में प्राप्त सभी प्रतिक्रियाएं शीघ्रतम उपलब्ध साधन से आवेदक को अग्रेषित की जाएंगी ।

(vii) लोक परामर्श पूरा करने के पश्चात्, इस प्रक्रिया के दौरान अभिव्यक्त सभी सारवान पर्यावरणीय चिंताओं को संबोधित करेगा और प्रारूप ईआइए और ईएमपी में समुचित परिवर्तन करेगा । इस प्रकार तैयार की गई अंतिम ई आई ए रिपोर्ट आवेदक के लिए संबंधित विनियामक प्राधिकरण को प्रस्तुत की जाएगी । आवेदक, लोक परामर्श के दौरान अभिव्यक्त की गई सभी चिंताओं को संबोधित करते हुए, प्रारूप ईआईए और ईएमपी की एक संक्षिप्त रिपोर्ट अंनुकल्पतः प्रस्तुत करेगा ।

IV प्रक्रम(4) - आंकलन :

(i) आंकलन से आवेदन और अन्य दस्तावेजों, ऐसे अंतिम ईआईए रिपोर्ट, लोक परामर्शों का निष्कर्ष, जिसके अंतर्गत लोक सुनवाई की कार्यवाहियां हैं, पर्यावरणीय अनापत्ति मंजूर करने के लिए संबंधित विनियामक प्राधिकरण को

आवेदक द्वारा प्रस्तुत की गई विशेषज्ञ आंकलन समिति या राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा विस्तृत संवीक्षा अभिप्रेत है । यह आंकलन विशेषज्ञ आंकलन समिति या राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा किसी कार्यवाही को, जिसमें आवेदक को आवश्यक स्पष्टीकरण प्रस्तुत करने के लिए व्यक्तिगत रुप से या किसी प्राधिकृत प्रतिनिधि को आमंत्रित किया जाता है, एक पारदर्शी रीति में किया जाएगा । इस कार्यवाही के निष्कर्ष पर विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति संबंधित विनियामक प्राधिकरण को निश्चित निबंधनों और शर्तों पर पूर्व पर्यावरणीय अनापत्ति मंजूर करने के लिए या पूर्व पर्यावरणीय अनापत्ति के लिए आवेदन को नामंजूर करने के लिए उसके कारणों सहित स्पष्ट सिफारिशें करेंगी ।

(ii) सभी परियोजनाओं या क्रियाकलापों का आंकलन जो लोक परामर्श के लिए अपेक्षित नहीं है या कोई पर्यावरण समाघात निर्धारण रिपोर्ट प्रस्तुत करना अपेक्षित नहीं है, जैसा लागू हो विहित आवेदन प्ररूप 1 और प्ररूप 1क के आधार पर उपलब्ध सभी अन्य सुसंगत विधिमान्य सूचना और दौरा किए स्थल को, जहां विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा ऐसा करना आवश्यक समझा जाता है, कार्यान्वित किया जाएगा ।

(iii) किसी आवेदन का आंकलम, विशेषज्ञ आंकलन समिति या संबधित राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा अंतिम पर्यावरण समाघात निर्धारण रिपोर्ट और अन्य दस्तावेजों की प्राप्ति या प्ररूप 1 या प्ररूप 1क के साठ दिनों के भीतर पूरा किया जाएगा, जहां लोक परामर्श आवश्यक नहीं है, वहां विशेषज्ञ आंकलन समिति या संबधित राज्य स्तर विशेषज्ञ आंकलन समिति की सिफारिशों को सक्षम प्राधिकारी के समक्ष अगले पन्द्रह दिनों के भीतर अंतिम विनिश्चय के लिए रखा जाएगा । आंकलन की विहित प्रक्रिया परिशिष्ट V में दी गई है ।

7. (ii) विद्यमान परियोजनाओं का विस्तार या आधुनिकीकरण या उत्पाद मिश्रण में परिवर्तन के लिए पूर्व पर्यावरणीय अनापत्ति प्रक्रिया,-

उस क्षमता के परे जिसके लिए इस अधिसूचना के अधीन पूर्व पर्यावरणीय अनापत्ति मंजूर की गई है, उत्पादन क्षमता में वृद्धि सहित या तो पट्टा क्षेत्र या खनन परियोजनाओं की दशा में उत्पादन क्षमता में वृद्धि सहित या इस अधिसूचना की अनुसूची में विहित अंतिम सीमा के परे कुल उत्पादन क्षमता में वृद्धि सहित विद्यमान यूनिट के आधुनिकीकरण के लिए, प्रक्रिया और/या प्रौद्योगिकी में परिवर्तन के माध्यम से या उत्पाद मिश्रण में किसी परिवर्तन के लिए पूर्व पर्यावरणीय अनापत्ति ईप्सित करने वाले सभी आवेदन प्ररूप 1 मे किए जाएंगे और उन पर संबंधित विशेषज्ञ आंकलन समिति या राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा साठ दिनों के भीतर विचार किया जाएगा, जो सम्यक् आवश्यक तत्परता से जिसके अंतर्गत ईआईए का तैयार किया जाना और लोक परामर्श भी है, विनिश्चय करेगी और आवेदन का तद्नुसार पर्यावरणीय अनापत्ति मंजूर करने के लिए आंकलन किया जाएगा ।

8. पूर्व पर्यावरणीय अनापत्ति मंजूर किया जाना या उसको खारिज किया जाना,-

(i) विनियामक प्राधिकरण, संबंधित ई ए सी या एस ई ए सी की सिफारिशों पर विचार करेगा और अपने विनिश्चय को आवेदक को विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की सिफारिशों की प्राप्ति के पैंतालीस दिनों के भीतर प्रेषित करेगा या अन्य शब्दों में अंतिम पर्यावरणीय समाघात निर्धारण रिपोर्ट की प्राप्ति के एक सौ पांच दिनों के भीतर प्रेषित करेगा और जहां पर्यावरणीय समाघात निर्धारण पूरे आवेदन की प्राप्ति के एक सौ पांच दिनों के भीतर अपेक्षित नहीं है वहां अपेक्षित दस्तावेज, नीचे उपबंधित के सिवाय प्रेषित करेगा ।

(ii) विनियामक प्राधिकरण, सामान्यतः विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की सिफारिशों को स्वीकार करेगा । उन दशाओं में जहां विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की सिफारिशों से असहमत है, वहां विनियामक प्राधिकरण विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की सिफारशों की प्राप्ति के पैंतालिस दिनों के भीतर असहमति के कारणों का कथन करते हुए पुनर्विचार का अनुरोध करेगा । इस विनिश्चय की सूचना आवेदक को साथ-साथ प्रेषित की जाएगी । उसके पश्चात् विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति, विनियामक प्राधिकरण के संप्रेक्षणों पर विचार करेगी और उस पर अपने विचार साठ दिनों की और अवधि के भीतर पेश करेगी । विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति के विचारों को ध्यान में रखने के पश्चात् विनियामक प्राधिकरण का विनिश्चय अंतिम होगा और संबंधित विनियामक प्राधिकरण को अगले तीस दिनों के भीतर आवेदक को प्रेषित किया जाएगा ।

(iii) उस दशा में जहां विनियामक प्राधिकरण का विनिश्चय आवेदक को, ऊपर उपपैरा (i) या (ii) में, जहां लागू हो विनिर्दिष्ट अवधि के भीतर संसूचित नहीं किया जाता है, वहां आवेदक इस प्रकार अग्रसर हो सकेगा मानो मांगी गई पर्यावरण अनापत्ति मंजूर कर दी गई है या विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की अंतिम सिफारिशों के निबंधनों में विनियामक प्राधिकरण द्वारा नामंजूर कर दी गई है ।

(iv) ऊपर पैरा (i) और (ii) के अधीन, जहां लागू हो, विनियामक प्राधिकरण द्वारा विनिश्चय के लिए विनिर्दिष्ट अवधि के अवसान पर, विनियामक प्राधिकरण का विनश्चय और विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति की अंतिम सिफारिशें लोक दस्तावेज होंगे ।

(v) अन्य विनियामक प्राधिकरणों से परियोजनाओं या क्रियाकलापों, या संबंधित विनियामक प्राधिकरण द्वारा स्क्रीनिंग, विस्तारण या आंकलन या विनिश्चय पूर्व पर्यावरण अनापत्ति के लिए आवेदनों की प्राप्ति के पूर्व तब तक अपेक्षित नहीं होगी जब तक या तो ऐसी अनापत्ति किसी विधि की अपेक्षा का आवश्यक तकनीकी कारणों से कोई श्रृंखलाबद्ध आधार न हो ।

(vi) जान बूझ कर छिपाना और/या मिथ्या प्रस्तुतीकरण या भ्रामक सूचना या आंकडे देना जो स्क्रीनिंग, विस्तारण या आंकलन या आवेदन पर विनिश्चय के लिए सारवान हो, आवेदन को नामंजूर किए जाने या उस आधार पर मंजूर की गई पूर्व पर्यावरणीय अनापत्ति के रद्दकरण के लिए दायी बनाएगी । किसी आवेदन को नामंजूर करना या इस आधार पर पहले मंजूर की गई किसी पूर्व पर्यावरणीय अनापत्ति के रद्दकरण का विनिश्चय विनियामक प्राधिकरण द्वारा आवेदक की व्यक्तिगत सुनवाई करने के पश्चात् किया जाएगा और उसमें नैसर्गिक न्याय के सिद्धांतों का पालन किया जाएगा ।

9. पर्यावरणीय अनापत्ति की विधिमान्यता,-

"पर्यावरणीय अनापत्ति की विधिमान्यता" से वह अवधि अभिप्रेत है जिससे विनियामक प्राधिकरण द्वारा मंजूर की गई पूर्व पर्यावरणीय अनापत्ति मंजूर की जाती है या आवेदक द्वारा यह समझा जा सकेगा कि वह ऊपर पैरा 7 के उपपैरा (iv) के अधीन परियोजना या क्रियाकलाप द्वारा उत्पादन प्रचालन आरंभ करने या संनिर्माण परियोजनाओं की दशा में (अनुसूची की मद 8) सभी संनिर्माण प्रचालन पूरा करने, जिसके के लिए पूर्व पर्यावरण अनापत्ति के लिए

आवेदन का निर्देश करता है, मंजूर की गई है । किसी परियोजना या क्रियाकलाप के लिए नदी घाटी परियोजनाओं (अनुसूची की मद 1(ग)) की दशा में दस वर्ष की अवधि के लिए, विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति द्वारा यथा प्राक्कलित परियोजना की अवधि खनन परियोजनाओं के लिए अधिकतम तीस वर्षों के लिए और सभी अन्य परियोजनाओं और क्रियाकलापों की दशा में पांच वर्ष होगी । तथापि क्षेत्र विकास परियोजनाओं और नगरीय की दशा में (मद 8(ख)) विधिमान्य अवधि केवल ऐसे क्रियाकलापों तक सीमित होगी जहां तक किसी विकासकर्ता के रूप में आवेदक का उत्तरदायित्व है । इस विधिमान्यता की अवधि को संबंधित विनियामक प्राधिकरण द्वारा पांच वर्ष की अधिकतम अवधि तक बढ़ाया जा सकेगा, परन्तु यह तब जब कि कोई आवेदन आवेदक द्वारा विनियामक प्राधिकरण को संनिर्माण प्रियोजनाओं या क्रियाकलापों के लिए (अनुसूची की मद 8) अद्यतन प्ररूप 1 और अनुपूरक प्ररूप 1क सहित विधिमान्य अवधि के भीतर किया जाता है । इस बाबत विनियामक प्राधिकरण, यथास्थिति, विशेषज्ञ आंकलन समिति या राज्य स्तर विशेषज्ञ आंकलन समिति से भी परामर्श कर सकेगा ।

10. पश्च पर्यावरणीय अनापत्ति को मानीटर करना,-

(i) परियोजना प्रबंधन के लिए प्रत्येक कलेंडर वर्ष की 1 जून और 1 दिसंबर को संबंधित विनियामक प्राधिकरण को निश्चित पूर्व पर्यावरणीय अनापत्ति के निबंधनों और शर्तों के संबंध में अनुपालन रिपोर्टों को अर्धवार्षिक रूप में हार्ड और साफ्ट प्रतियों में प्रस्तुत करना आज्ञापक होगा ।

(ii) परियोजना प्रबंधन द्वारा प्रस्तुत की गई सभी ऐसी अनुपालन रिपोर्टें लोक दस्तावेज होंगी, उसकी प्रतियां संबंधित विनियामक प्राधिकरण को आवेदन पर किसी व्यक्ति को दी जाएंगी । ऐसी अंतिम अनुपालन रिपोर्ट संबंधित विनियामक प्राधिकरण की वेबसाइट पर भी दर्शित की जाएगी ।

11. पर्यावरणीय अनापत्ति की अंतरणीयता,-

किसी आवेदक को किसी विनिर्दिष्ट परियोजना या क्रियाकलाप के लिए मंजूर की गई कोई पूर्व पर्यावरणीय अनापत्ति अंतरक द्वारा या अंतरिकी द्वारा आवेदन पर परियोजना या क्रियाकलाप को करने के हकदार किसी अन्य विधिक व्यक्ति को अंतरक द्वारा लिखित "अनापत्ति सहित" जो इसकी विधिमान्यता की अवधि के दौरान संबंधित विनियामक प्राधिकरण द्वारा उन्हीं निबंधनों और शर्तों के अधीन पूर्व पर्यावरणीय अनापत्ति आरंभ में मंजूर की गई थी और उसी विधिमान्यता अवधि के लिए अंतरित की जा सकेगी । ऐसे मामलों में विशेषज्ञ आंकलन समिति या संबंधित राज्य स्तर विशेषज्ञ आंकलन समिति को कोई निर्देश आवश्यक नहीं है ।

12. लंबित मामलों के निपटान तक ई.आई.ए. अधिसूचना का प्रवर्तन,-

इस अधिसूचना के अंतिम प्रकाशन की तारीख से पर्यावरणीय समाघात निर्धारण की अधिसूचना सं0 का.आ. 60(अ), तारीख 27 जनवरी, 1994 को, उन बातों के सिवाय, जिन्हें ऐसे अधिक्रमण से पूर्व किया गया है या करने से लोप किया गया है, उस सीमा तक अधिक्रांत किया जाता है कि पूर्व पर्यावरणीय अनापत्ति के लिए किए गए और इस अधिसूचना के अंतिम प्रकाशन की तारीख को लंबित सभी या कुछ प्रकार के आवेदनों को, परियोजानाओं या क्रियाकलापों को, उस सूची के सिवाय जिनमें अनुसूची 1 में पूर्व पर्यावरणी अनापत्ति अपेक्षित है, इस अधिसूचना के किसी एक या सभी उपबंधों से छूट दे सकेगी या उक्त अधिसूचना के कुछ या सभी उपबंधों के प्रवर्तन को इस अधिसूचना के जारी करने की की तारीख से एक वर्ष से अनधिक अवधि के लिए जारी रख सकेगी ।

अनुसूची

(पैरा 2 और 7 देखे)

पूर्व पर्यावरणीय अनापत्ति की अपेक्षा वाली परियोजनाओं या क्रियाकलापों की सूची

क्र सं.	परियोजना या क्रियाकलाप	अवसीमा सहित प्रवर्ग		शर्तें, यदि कोई हो
		क	ख	
1	खनन, प्राकृतिक संसाधन का निष्कर्षण और विद्युत उत्पादन विनिर्दिष्ट उत्पादन क्षमता के लिए)			
1	2	3	4	5
1(क)	खनिज का खनन	खनन पट्टा क्षेत्र का ≥50 है0 किसी भी खनन क्षेत्र का ध्यान दिए बिना ऐस्बैस्टज खनन	< 50 हैक्टेयर . ≥ 5 हैक्टेयर खनन पट्टा क्षेत्र	साधारण शर्त लागू होगी टिप्पण खनिज पदार्थों के पूर्वेक्षण (जिसमें ड्रिलिंग न हो) को छूट दी गई है बर्शते कि वास्तिवक सर्वेक्षण के लिए छूट वाले क्षेत्रों की पूर्व अनुमति ली गई है ।
1(ख)	अपतट और तटवर्ती तेल तथा गैस की खोज, विकास और उत्पादन	सभी परियोजनाएं	-	टिप्पण सार खोज सर्वेक्षण (जिसमें ड्रिलिंग न हो) को छूट दी गई है बर्शत कि वास्तिवक सर्वेक्षण के लिए छूट वाले क्षेत्रों की पूर्व अनुमित ली गई है ।
1(ग)	नदी घाटी परियोजनाएं	(i) ≥50 मे0वा0 जल विद्युत उत्पादन (ii)≥10,000 है0खेती योग्य प्रभावित क्षेत्र	(i) <50 ≥ 25 मे0वा0 जल विद्युत उत्पादन (ii) <10,000 है0 खेती योग्य प्रभावित क्षेत्र	सधारण शर्त लागू होगी
1(घ)	तापीय विद्युत संयंत्र	(कोयला लिग्नाइट और नेप्था गैस आधारित) ≥500 मे.वा. ≥ 50 मे.वा. (पैटकोक, डीजल और सभी अन्य ईंधन)	(कोयला/लिग्नाइट/नैप्था एवं गैस आधारित) <500 मे.वा. (पैटकोक, डीजल और सभी अन्य ईंधन)<50 मे.वा ≥5 मे.वा.	साधारण शर्त लागू होगी
1(ङ)	आणविक विद्युत परियोजनाएं और आणविक ईंधन का प्रसंस्करण	सभी परियोजनाएं	-	
2	प्राथमिक प्रसंस्करण			
2(क)	कोयला धोवनशालाएं	≥1 मिलियन टन/ वार्षिक कोयले का उत्पादन	<1 मिलियन टन/ वार्षिक कोयले का उत्पादन	साधारण शर्त लागू होगी (यदि खनन क्षेत्र के अंदर स्थित है तो प्रस्ताव का मूल्यांकन खनन प्रस्ताव के साथ किया जाना चाहिए)

2(ख)	खनिज सज्जीकरण	≥0.1 मिलियन टन/ वार्षिक कोयले का उत्पादन	<0.1 मिलियन टन/ वार्षिक कोयले का उत्पादन	साधारण शर्त लागू होगी अनापत्ति प्रदान करने के लिए खनन प्रस्ताव का खनिज सज्जीकरण के साथ ही मूल्यांकन किया जाना चाहिए
3	**पदार्थ उत्पादन**			
3(क)	धातुकर्म उद्योग (फेरस और गैर फैरस)	क) प्राथमिक धातुकर्म उद्योग सभी परियोजनाएं ख) स्पंज आयरन विनिर्माण ≥ 200 टन पी डी ग) गौण धातु कर्म प्रसंस्करण उद्योग सभी विषाक्त और भारी धातु उत्पादित करने वाली ईकाइयां ≥ 20,000 टन/ वार्षिक	स्पंज आयरन विनिर्माण < 200 टन पी डी गौण धातु कर्म प्रसंस्करण उद्योग 1) सभी विषाक्त और भारी धातु उत्पादित करने वाली ईकाइयां <20,000 टन/ वार्षिक 2)अन्य सभी विषरहित गौण धातुकर्म प्रसंस्करण उद्योग > 5000 टन /वार्षिक	स्पंज आयरन विनिर्माण के लिए साधारण शर्त लागू होगी
3(ख)	सीमेंट संयंत्र	वार्षिक उत्पादन क्षमता ≥ 1.0 मिलियन टन	वार्षिक उत्पादन क्षमता < 1.0 मिलियन टन यह सभी ग्राइंडिंग इकाइयों के लिए लागू है	साधारण शर्त लागू होगी
4	**पदार्थ प्रसंस्करण**			
4 (क)	पेट्रोलिम रिफाइनिंग उद्योग	सभी परियोजनाएं	-	-
4(ख)	कोक भट्टी संयंत्र	≥ 2,50,000 टन वार्षिक	< 2,50,000 एवं ≥ 25,000 टन वार्षिक	-
4(ग)	एस्बेस्टास मिलिंग और एस्बेस्टास आधारित उत्पाद	सभी परियोजनाएं	-	-
4(घ)	क्लोरक्षार उद्योग,	उत्पादन क्षमता ≥ 300टन पी डी या अधिसूचित औद्योगिक क्षेत्र/संपदा से बाहर अवस्थित ईकाई	उत्पादन क्षमता < 300 टन पी डी और अधिसूचित औद्योगिक क्षेत्र/संपदा में अवस्थित ईकाई	विनिर्दिष्ट शर्त लागू होगी किसी नए पारा प्रकोष्ठ आधारित संयंत्र को अनुज्ञा नहीं दी जाएगी और इस अधिसूचना द्वारा झिल्लीमय प्रकोष्ठ प्रौद्योगिकी में परिवर्तन करने वाली विद्यमान इकाई को छूट प्राप्त है ।

4 (ड़)	सोडा भस्म उद्योग	सभी परियोजनाएं	-	-
4(च)	चमड़ा/त्वचा/खाल प्रसंस्करण उद्योग	औद्योगिक क्षेत्र से बाहर सभी नई परियोजनाएं या औद्योगिक क्षेत्र के बाहर विद्यमान ईकाइयों का विस्तार	अधिसूचित औद्योगिक क्षेत्र/संपदा में अवस्थित सभी नई परियोजनाएं या परियोजनाओं का विस्तार	विनिर्दिष्ट शर्त लागू होगी
5	उत्पादन/फैब्रिकेशन			
5(क)	रासायनिक उर्वरक	सभी परियोजनाएं	-	-
5(ख)	कीटनाशक उद्योग और कीटनाशक विशिष्ट मध्यक जीवमार (विनिर्मिति को छोड़कर)	तकनीकी श्रेणी के कीटनाशको को उत्पादन करने वाली सभी ईकाइयां	-	-
5(ग)	पेट्रो रसायन परिसर (पेट्रोलियम के अंश और प्राकृतिक गैस और/या सुगन्धितों में सुधार प्रसंस्करण आधारित उद्योग	सभी परियोजनाएं	-	-
5(घ)	मानव निर्मित फाइवर	रेयन	अन्य	साधारण शर्त लागू होगी
	का उत्पादन			
5(ङ)	पेट्रो रसायन आधारित प्रसंस्करण (भंजन से भिन्न अन्य प्रसंस्करण तथा सुधार और जो परिसर के भीतर समाविष्ट नहीं है)	अधिसूचित औद्योगिक क्षेत्र/संपदा के बाह्य अवस्थित	अधिसूचित औद्योगिक क्षेत्र/संपदा के भीतर अवस्थित	विनिर्दिष्ट शर्त लागू होगी
5(च)	संश्लिष्ट कार्बनिक रसायन उद्योग (रंजक और रंजक मध्यक; थोक औषधि और औषधि विनिर्मितियों को छोड़कर मध्यकः संश्लिष्ट रबड़ मूल कार्बनिक रसायन, अन्य संश्लिष्ट कार्बनिक रसायन और रसायन मध्यक)	अधिसूचित औद्योगिक क्षेत्र/संपदा के बाह्य अवस्थित	अधिसूचित औद्योगिक क्षेत्र/संपदा के भीतर अवस्थित	विनिर्दिष्ट शर्त लागू होगी
5(छ)	आसवनी	(i) सभी शीरा आधारित आसवनी । (ii) सभी गन्ने का रस/गैर -शीरा आधारित आसवनी ≥30 कि0ली0 दैनिक	सभी गन्ने का रस/गैर शीरा आधारित आसवनी <30 कि0ली0 दैनिक	साधारण शर्त लागू होगी
5(ज)	समेकित पेंट उद्योग	-	सभी परियोजनाएं	साधारण शर्त लागू होगी
5(झ)	अपशिष्ट कागज से कागज का निर्माण और तैयार लुग्दी और विरंजन किए बिना तैयार लुग्दी से कागज निर्माण के अलावा लुग्दी एवं कागज	लुग्दी विनिर्माण और लुग्दी और कागज विनिर्माण उद्योग	लुग्दी विनिर्माण के बिना कागज विनिर्माण उद्योग	साधारण शर्त लागू होगी

	उद्योग			
5(ञ)	चीनी उद्योग		गन्ना पेरने की क्षमता ≥ 5000 टन दैनिक	साधारण शर्त लागू होगी
5(ट)	प्रेरण/आर्क भट्टी/कुपोला भट्टी 5 टन प्रति घंटा या ज्यादा	-	सभी परियोजनाएं	साधारण शर्त लागू होगी
6	सेवा सेक्टर			
6(क)	राष्ट्रीय उद्यानों/ अभयारण्यों/ प्रवाल भित्तियों/ एल एन जी टर्मिनल सहित पारिस्थितिकीय संवेदनशील क्षेत्रों से गुजरने वाली तेल और गैस परिवहन पाइप लाइनें(अपरिकृष्त और परिष्करणी /पेट्रो रसायन उत्पाद)	सभी परियोजनाएं	-	-
6(ख)	एकल भंडारकरण और परिसंकटमय रसायन को संभालना (एमएसआईएचसी नियम, 1989 और 2000 की संशोधित अनुसूची 2 और 3 के स्तंभ 3 में उपदर्शित अवसीमा योजना परिमाण के अनुसार		सभी परियोजनाएं	साधारण शर्त लागू होगी
7	पर्यावरणीय सेवाओं सहित भौतिक अवसंरचना			
7(क)	विमानपत्तन	सभी परियोजनाएं	-	-
7(ख)	सभी पोत भंजन यार्ड जिसमें पोत भंजन इकाई भी सम्मिलित है	सभी परियोजनाएं	-	-
7(ग)	औद्योगिक सम्पदा/पार्क/परिसर/ क्षेत्र/निर्यात प्रंस्संकरण जोन(नि.प्रं.जो.),विशेष आर्थिक जोन(वि.आ.जो.) जैव प्रौद्योगिकी पार्क चमड़ा परिसर	प्रस्तावित औद्योगिक संपदा में यदि एक भी उद्योग श्रेणी क के अंतर्गत आता है तो पूरे औद्योगिक क्षेत्र को श्रेणी क ही समझा जाएगा चाहे वह किसी भी क्षेत्र में हो 500 हैक्टेयर से ज्यादा क्षेत्र की औद्योगिक संपदाएं और जिनमें कम से कम एक श्रेणी ख का उद्योग स्थित हो	औद्योगिक संपदाएं और जिनमें कम से कम एक श्रेणी ख का उद्योग स्थित है और क्षेत्र< 500 हैक्टेयर हो औद्योगिक संपदाएं क्षेत्र > 500 हैक्टेयर और जिसमें श्रेणी क या ख श्रेणी का कोई उद्योग नहीं है	विशेष शर्त लागू होगी टिप्पण 500 हैक्टेयर से कम क्षेत्र की औद्योगिक संपदाओं जिनमें क या ख श्रेणी का कोई उद्योग नहीं है, को मंजूरी की आवश्यकता नहीं है
7(घ)	सामान्य परिसंकटमय ,अपशिष्ट उपचार भंडारकरण और निपटान सुविधाएं (उ.भं.नि.सु.)	सभी एकीकृत सुविधाएं जिनमें भस्मीकरण और भूमिभरण या केवल भस्मीकरण शामिल है	केवल भूमि भरण वाली सभी सुविधाएं	साधारण शर्त लागू होगी

7(ङ)	पत्तन, बंदरगाह	≥ 5 मिलियन टन वार्षिक स्थोरा की उठाई-धराई की क्षमता (मत्स्य बंदरगाह से भिन्न)	<5 मिलयन टन वार्षिक स्थोरा की उठाई-धराई की क्षमता और पत्तन/बंदरगाह में ≥ 10,000 टन वार्षिक मछली पकड़ने की क्षमता	साधारण शर्त लागू होगी
7(च)	राजमार्ग	1) नए राष्ट्रीय राजमार्गः और 2) 30 कि.मी. से ज्यादा लंबाई के राष्ट्रीय राजमार्गों का विस्तार जिनमें मार्ग के दोनों ओर अतिरिक्त भूमि अधिग्रहण 20 मीटर से ज्यादा है और एक से अधिक राज्यों से गुजरते हैं ।	1) नए राज्य राजमार्गः और 2) 30 कि.मी. से ज्यादा लंबे राष्ट्रीय /राज्य राजमार्गों का विस्तार जिनमें मार्ग के दोनों ओर अतिरिक्त भूमि अधिग्रहण 20 मीटर से ज्यादा है ।	साधारण शर्त लागू होगी
7(छ)	आकाशी यात्री रज्जुमार्ग		सभी परियोजनाएं	साधारण शर्त लागू होगी
7(ज)	सामान्य स्राव उपचार संयंत्र (स.स्र.उ.सं.)		सभी परियोजनाएं	साधारण शर्त लागू होगी
7(झ)	नगरपालिका ठोस अपशिट प्रबंधन सुविधा (स.न..अ.प्र.स.)		सभी परियोजनाएं	साधारण शर्त लागू होगी
8	भवन/ संनिर्माण परियोजनाएं/क्षेत्र विकास परियोजनाएं और शहरीकरण			
8(क)	भवन एवं संनिर्माण परियोजनाएं		≥ 20000 वर्ग मी. के निर्मित क्षेत्र और < 1,50,000 वग मीटर के निर्मित क्षेत्र #	# आवृत संनिर्माण के लिए निर्मित क्षेत्र आकाश की ओर खुली सुविधाओं की दशा में यह क्रियाकलाप क्षेत्र भी होगा ।
8(ख)	नगरी और क्षेत्र विकास परियोजनाएं		≥50हे0. क्षेत्र को सम्मिलित करते हुए और या निर्मित क्षेत्र ≥ 1,50,000 वर्ग मीटर ++	++ 8 (ख) के अंतर्गत सभी परियोजनाओं को ख 1 प्रवर्ग के अनुसार निबंधित किया जाएगा ।

टिप्पण

साधारण शर्त (सा.श.)

प्रवर्ग "ख" में विनिर्दिष्ट किसी परियोजना या क्रियाकलाप को प्रवर्ग "क " माना जाएगा, यदि वह : (i) वन्य जीव (संरक्षण) अधिनियम, 1972 के अधीन अधिसूचित संरक्षित क्षेत्र; (ii) उसकी समय-समय पर केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा गंभीर रूप से प्रदूषित क्षेत्र के रूप में पहचान की गई है; (iii) पारिस्थितिकी संवेदनशील क्षेत्र अधिसूचित है ; और (iv) अंतरराज्यिक सीमाओं और अंतरराष्ट्रीय सीमाओं से दस किलोमीटर के भीतर संपूर्ण रूप सें या आंशिक रूप में अवस्थित है ।

विनिर्दिष्ट शर्त (वि.श.)

यदि कोई मद 4(घ), 4(च), 5(ङ), 5(च) जैसी समयुग्म की प्रकार का उद्योगों वाला औद्योगिक संपदा/कांप्लेक्स/निर्यात प्रसंस्करण जोन/विशेष आर्थिक जोन/जैव प्रौद्योगिकी उद्यान/चमड़ा परिसर या पूर्व निर्धारित गतिविधियों वाले उद्योग (आवश्यक नहीं कि वे समयुग्म हों) पूर्व पर्यावरणीय अनापत्ति प्राप्त करते हैं, तो ऐसी संपदाओं/कांप्लेक्सों के भीतर प्रस्तावित उद्योगों सहित निजी उद्योगों को तब तक पूर्व पर्यावरणीय अनापत्ति लेना अपेक्षित नहीं है जब तक कि औद्योगिक कांप्लेक्स/संपदा के लिए निबंधनों और शर्तों का अनुपालन नहीं करते (ऐसी संपदा/कांप्लेक्सों की पूर्व पर्यावरणीय अनापत्ति की निबंधनों और शर्तों के लिए सहमता सुनिश्चित करने के विधिक उत्तरदायित्व से स्पष्ट रूप से पहचान करने का प्रबंध होना चाहिए जिसे कांप्लेक्स/संपदा के सारे जीवन में उसके अतिक्रमण के लिए उत्तरदायी ठहराया जा सकेगा) ।

[सं. जे-11013/56/2004-आईए-II(I)]

आर. चन्द्रमोहन, संयुक्त सचिव

परिशिष्ट -I
(पैरा 6 देखें)
प्ररूप 1

(1) आधारभूत जानकारी

परियोजना का नाम :

विचाराधीन अनुकल्पी अवस्थिति/स्थान :

परियोजना का आकार * :

परियोजना की प्राक्कलित लागत

संपर्क जानकारी :

संवीक्षा प्रवर्ग :

- अंचलीय क्रियाकलाप के लिए तत्स्थानी क्षमता (जैसे विनिर्माण करने के लिए उत्पादन क्षमता, खनिज उत्पादन के लिए खनन पट्टा क्षेत्र और उत्पादन क्षमता, खनिज पूर्वेक्षण के लिए क्षेत्र, अनुरेख परिवहन अवसंरचना के लिए लंबाई, विद्युत उत्पादन आदि के उत्पादन क्षमता)

(II) क्रियाकलाप

1. परियोजना का संनिर्माण, प्रचालन या न निकालना जिसमें ऐसी कार्रवाई भी सम्मिलित है जो परिक्षेत्र में भौतिक परिवर्तनों का कारण होगी (स्थलाकृति, भूमि उपयोग, जल निकायों में परिवर्तन आदि)

क्र.सं.	जानकारी/जांच सूची पुष्टिकरण	हां/नहीं	उनके ब्यौरे (लगभग मात्रा/दरों, सहित, जो संभव हो, सहित) आंकड़ों की जानकारी के स्रोत सहित ।
1.1	भूमि उपयोग, समावेश भूमि या स्थलाकृति में स्थायी या अस्थायी जिसमें भूमि उपयोग की मात्रा(स्थानीय भूमि उपयोग योजना के बारे में वृद्धि भी सम्मिलित है)		
1.2	विद्यमान भूमि, वनस्पति और भवनों की अनापत्ति		
1.3	नई भूमि उपयोगों का सृजन		
1.4	संनिर्माण पूर्व अन्वेषण अर्थात बोर, गृह, मिट्टी का परिक्षण करना		
1.5	संनिर्माण कार्य		
1.6	विध्वंस कार्य		

1.7	संनिर्माण कार्य या संनिर्माण कर्मकारों के घर के प्रबंध के लिए उपयोग किए गए अस्थायी स्थल		
1.8	उपर्युक्त भू-भवन, संरचनाएं या शुरुआत जिसमें अनुरेखीय संरचनाएं, काटनी और भरना या खुदाई भी सम्मिलित है ।		
1.9	भूमिगत कार्य जिसमें खनन या सुरंग बनाना भी सम्मिलित है ।		
1.10	भूमि उद्धार कार्य		
1.11	तलकर्षक		
1.12	अपतृट संरचनाएं		
1.13	उत्पादन और विनिर्माण प्रक्रियाएं		
1.14	सामग्रियों या माल के भंडार की सुविधाएं		
1.15	ठोस अपशिष्ट या तरल बहिःस्रावों के उपचार या निपटान के लिए सुविधाएं		
1.16	परिचालन कर्मकारों के दीर्घकालिक घर का प्रबंध के लिए सुविधाएं		
1.17	संनिर्माण या प्रचालन के दौरान नई सड़क, रेल या समुद्री यातायात		
1.18	नई सड़क,रेल,वायु जल वाहिन या अन्य परिवहन अवसंरचना जिसमें नए या परिवर्तित मार्ग और स्टेशन, पत्तन, विमानपत्तन आदि भी सम्मिलित है ।		
1.19	विद्यमान परिवहन मार्गों को बंद करना या अपवर्तन या यातायात परिचालन में परिवर्तनों के लिए प्रमुख अवसंरचना		
1.20	नई या अपवर्तित प्रेषण लाईनें या पाइपलाइनें		
1.21	अवरूद्ध करना, बांध बनाना, पुलिया बनाना, पुनःरेखांकन या जलमार्गों या एक्वीफरों के जल विज्ञान के लिए अन्य परिवर्तन		
1.22	प्रवाह पार		
1.23	भूजल या भूतल से जल का अंतरण या पृथक्करण		
1.24	नालियों या प्रवाह को प्रभावित करने वाले जलनिष्पादों या भूमि स्तर में परिवर्तन		
1.25	संनिर्माण, परिचालन या म निकालमे के लिए कार्मिक या सामग्रियों का परिवहन		
1.26	दीर्घकालिक रूप मे तोड़ना, प्रारंभ करना या कार्य पुनः आरंभ करना ।		
1.27	आरंभ के दौरान जारी ऐसे क्रियाकलाप जो पर्यावरण पर समाघात कर सकेंगे ।		
1.28	जनता का किसी क्षेत्र के लिए या तो अस्थायी रूप से या स्थायी रूप से आना ।		
1.29	अन्य देशीय प्रजातियों का आना		
1.30	मूल निवासी प्रजातियों या आनुवंशिक विविधता की हानि		
1.31	अन्य कोई कार्रवाईयां		

2. परियोजना के संनिर्माण या प्रचालन के लिए प्राकृतिक संसाधनों का उपयोग(जैसे भूमि, जल सामग्री या ऊर्जा विशेष रूप से ऐसा कोई संसाधन जो नवीकरणीय नहीं हैं या जिसका प्रदाय कम है)

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दरों सहित, जहां कहीं संभव हो)
2.1	विशेष रूप से अविकसित भूमि या कृषि भूमि (हे0)		
2.2	जल (अनुमानित स्रोत और प्रतियोगी उपयोगकर्ता) इकाई : के.एल.डी.		
2.3	खनिज (एम.टी.)		
2.4	संनिर्माण सामग्री -- पत्थर, औरात, बालू/मृदा (अनुमानित स्रोत एम.टी.)		
2.5	वन और इमारती लकड़ी (स्रोत -- एम.टी.)		
2.6	ऊर्जा जिसके अंतर्गत विद्युत और ईंधन (स्रोत, प्रतियोगी उपयोगकर्ता) इकाई : ईंधन (एम.टी.) ऊर्जा (एम.डब्ल्यू)		
2.7	कोई अन्य प्राकृतिक संसाधन (समुचित मानक इकाइयों का उपयोग करें)		

3. पदार्थों या सामग्रियों का उपयोग भंडारण, परिवहन, उठाई धराई या उत्पादन, जो मानव स्वास्थ्य या पर्यावरण के लिए खतरनाक या जिनके मानव स्वास्थ्य की जोखिम की वास्तविकता के बारे में चिंताएं उठती हैं ।

क्र.सं.	सूचना/जांच सूची पुष्टिकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दरों सहित, जहां कहीं संभव हो)
3.1	पदार्थों या सामग्रियों का उपयोग जो मानव स्वास्थ्य या पर्यावरण (फ्लोरा, फौना और जल प्रदाय के लिए परिसंकटमय) (एम.एस.आई.एच.सी. नियमों के अनुसार) है		
3.2	रोग के होने में परिवर्तन या रोग वाहकों के रोग का प्रभाव (उदहरणार्थ कीट या जल-जन्य रोग)		
3.3	लोगों के कल्याण पर प्रभाव उदहरणार्थ जीवन दशाओं में परिवर्तन करके		
3.4	लोगों के संवेदनशील समूह जो परियोजना अर्थात् अस्पताल रोगियों, बालकों, वृद्धों आदि द्वारा प्रभावित हो सकते हैं		
3.5	कोई अन्य कारण		

4. निर्माण या प्रचालन या प्रारंभ न करने के दौरान ठोस अपशिष्टों का उत्पादन (एम.टी./मास)

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दरों सहित, जहां कहीं संभव हो)
4.1	मृदा, अधिक भार या खान अपशिष्ट		
4.2	नगरपालिक अपशिष्ट (घरेलू और या वाणिज्यिक अपशिष्ट)		
4.3	परिसंकटमय अपशिष्ट (परिसंकटमय अपशिष्ट प्रबंध तंत्र नियमों के अनुसार)		
4.4	अन्य औद्योगिक प्रक्रिया अपशिष्ट		
4.5	अधिशेष उत्पाद		
4.6	मल बही-स्राव उपचार से मल गाद या अन्य गाद		
4.7	निर्माण या ढाये गए अपशिष्ट		
4.8	बेकार मशीनरी या उपस्कर		
4.9	संदूषित मृदाएं या अन्य सामग्रियां		
4.10	कृषि अपशिष्ट		
4.11	अन्य ठोस अपशिष्ट		

5. वायु में संदूषकों या किसी परिसंकटमय विषैले या जहरीले पदार्थों का विसर्जन

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दरों सहित, जहां कहीं संभव हो)
5.1	लेखन सामग्री या चल संसाधनों से जीवाश्म ईंधनों के दहन से उत्सर्जन		
5.2	उत्पादन प्रक्रियाओं से उत्सर्जन		
5.3	सामग्रियों की उठाई धराई से जिसके अंतर्गत भंडारण या परिवहन भी है, उत्सर्जन		
5.4	निर्माण क्रियाकलापों से जिसके अंतर्गत संयंत्र और उपस्कर भी हैं, उत्सर्जन		
5.5	सामग्रियों की उठाई धराई से जिसके अंतर्गत निर्माण सामग्री, मल और अपशिष्ट भी हैं, धूल या गंध		
5.6	अपशिष्ट के भस्मीकरण से उत्सर्जन		
5.7	खुली वायु में अपशिष्ट के जलने से उत्सर्जन (उदाहरणार्थ स्क्रैप सामग्री, निर्माण सामग्री का ढेर)		
5.8	किन्हीं अन्य स्रोतों से उत्सर्जन		

6. शोर और कंपन का पैदा होना तथा प्रकाश और उष्मा का उत्सर्जन

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दरों सहित, जहां कहीं संभव हो)
6.1	उपस्कर के प्रचालन से उदाहरणार्थ ईंजन, वातायन संयंत्र, संदलनित्र		
6.2	औद्योगिक या उसी प्रकार की प्रक्रियाओं से		
6.3	निर्माण या ढहाने से		
6.4	विस्फोटन या पाइलिंग से		
6.5	निर्माण या प्रचालन संबंधी यातायात से		
6.6	प्रकाशन या प्रशीतन प्रणालियों से		
6.7	किन्हीं अन्य संसाधनों से		

7. भूमि या मल नालियों, सतही जल, भूमिगत जल, तटीय जल या समुद्र में प्रदूषकों के विसर्जन से भूमि या जल के संदूषण के जोखिम

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दरों सहित, जहां कहीं संभव हो)
7.1	परिसंकटमय सामग्री की उठाई धराई, भंडारण, उपयोग या गाद से		
7.2	जल या भूमि में (अनुमानित ढंग और विसर्जन का स्थान) मल या अन्य बही स्रावों के विसर्जन से		
7.3	वायु से भूमि या जल में उत्सर्जित प्रदूषकों के जमा होने से		
7.4	किन्हीं अन्य संसाधनों से		
7.5	क्या इन संसाधनों से पर्यावरण में प्रदूषकों के जमा होने से दीर्घकालिक जोखिम है ?		

8. परियोजना के निर्माण या प्रचालन के दौरान दुर्घटनाओं का जोखिम जो मानव स्वास्थ्य या पर्यावरण को प्रभावित कर सकते हैं

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दरों सहित, जहां कहीं संभव हो)
8.1	परिसंकटमय पदार्थों के विस्फोट, गाद, आग, भंडारण, उठाई धराई या उत्पादन से		
8.2	किन्हीं अन्य कारणों से		
8.3	क्या परियोजना प्राकृतिक विपदाओं द्वारा पर्यावरण को नुकसान पहुंचाएंगी (उदाहरणार्थ बाढ़, भूकंप, भू-सखलन, वृष्टिस्फोट आदि) ?		

9. बातें जिन पर विचार किया जाना चाहिए (जैसे पारिणामिक विकास) जिनके कारण पर्यावरणीय प्रभाव होते हैं या जो संचयी प्रभावों को करने के लिए अन्य विद्यमान प्रभावों सहित या परिक्षेत्र में नियोजित क्रियाकलापों के लिए सामर्थवान हैं

क्र.सं.	सूचना/जांच सूची पुष्टीकरण	हां/नहीं	सूचना आंकड़ों के स्रोत सहित उनके ब्यौरे (लगभग मात्राओं/दरों सहित, जहां कहीं संभव हो)
9.1	जिसके कारण आधार का विकास, सहायक विकास या परियोजना द्वारा विकास को बल मिलता है जिसका पर्यावरण पर प्रभाव हो सकता है अर्थात् – • आधारिक अवसंरचना (सड़कें, बिजली प्रदाय, अपशिष्ट या अपशिष्ट जल उपचार आदि) • आवासन विकास • निष्कर्षित उद्योग • पूर्ति उद्योग • अन्य		
9.2	जिसके कारण स्थल का बाद में उपयोग होता है जिसका पर्यावरण पर प्रभाव हो सकता है		
9.3	पश्चात्वर्ती विकासों के लिए उदाहरण स्थापित करना		
9.4	सामिप्य के कारण अन्य विद्यमान परियोजनाओं पर संचयी प्रभाव हैं या उसी प्रकार के प्रभावों सहित नियोजित परियोजनाएं		

(III) पर्यावरणीय संवेदनशीलता

क्र.सं.	क्षेत्र	नाम/पहचान	आकाशी दूरी (15 किलोमीटर के भीतर) प्रस्तावित परियोजना अवस्थान सीमा
1.	उनके पारिस्थितिक भू-दृश्य, सांस्कृतिक या अन्य संबंधित मूल्यों के लिए अंतरराष्ट्रीय कन्वेंशन, राष्ट्रीय या स्थानीय विधान के अधीन संरक्षित क्षेत्र ।		
2.	क्षेत्र जो पारिस्थितिक कारणों के लिए महत्वपूर्ण या संवेदनशील हैं - वेट लैड्स, जल स्रोत या अन्य जल संबंधी निकाय, तटीय जोन, बायोस्फीयर, पहाड़ियां, वन		
3.	क्षेत्र जो प्रजनन, घोसला बनाने, चारे के लिए, आराम करने के लिए, सर्दी के लिए, प्रवास के लिए फ्लोरा और फोना के संरक्षित महत्वपूर्ण या संवेदनशील प्रजातियों द्वारा उपयोग किए जाते हैं		
4.	अंतरदेशीय, तटीय, सामुद्रिक या भूमिगत जल		

5.	राज्य, राष्ट्रीय सीमाएं		
6.	मनोरंजन की या अन्य पर्यटक/यात्रियों वाले क्षेत्रों में पहुंच के लिए जनता द्वारा उपयोग किए जाने वाले मार्ग या सुविधाएं		
7.	रक्षा प्रतिष्ठापन		
8.	सघन रूप से बसे हुए या निर्मित क्षेत्र		
9.	संवेदनशील मानव निर्मित भूमि उपयोगों के अधिभोगाधीन क्षेत्र अस्पताल, पाठशालाएं, पूजा स्थल, सामुदायिक सुविधाएं		
10.	महत्वपूर्ण, उच्च क्वालिटी या दुर्लभ संसाधनों वाले क्षेत्र (भूमिगत जल संसाधन, भूतल संसाधन, वनोद्योग, कृषि, मत्स्य उद्योग, पर्यटन, खनिज)		
11.	क्षेत्र जो पहले से ही प्रदूषण या पर्यावरणीय नुकसान के अधीन हैं (वे जहां विद्यमान विधिक पर्यावरणीय मानक अधिक होते हैं)		
12.	क्षेत्र जहां प्राकृतिक संकट हो सकता है जो वर्तमान पर्यावरणीय समस्याओं की योजनाओं को प्रभावित कर सकते हैं (धंसना, भूस्खलन, भूमि कटाव, बाढ़ या अत्यंत या प्रतिकूल वातावरणीय दशाएं)		

परिशिष्ट 2
(पैरा 6 देखें)

प्ररूप 1क (केवल अनुसूची की मद 8 के अधीन सूचीबद्ध निर्माण परियोजनाओं के लिए)

पर्यावरणीय प्रभावों की जांच सूची

(पूर्ण जानकारी उपलब्ध कराने के लिए अपेक्षित परियोजना सलाहकार और जहां कहीं आवश्यक हो प्ररूप के साथ स्पष्टीकारक टिप्पण संलग्न करें तथा प्रस्तावित पर्यावरणीय प्रबंधतंत्र योजना और मानिटरी कार्यक्रम के साथ प्रस्तुत करें)

1. भूमि पर्यावरण

(परियोजना स्थल और आसपास का विशाल दृश्य संलग्न करें)

1.1 क्या विद्यमान भूमि के उपयोग में परियोजना से सारवान रूप से परिवर्तन किया जाएगा जो वातावरण आसपास से संगत नहीं है ? (प्रस्तावित भूमि उपयोग सक्षम प्राधिकारी के अनुमोदित मास्टर प्लान/विकास योजना के अनुरूप होना चाहिए । भूमि उपयोग में परिवर्तन यदि कोई हो और सक्षम प्राधिकारी से कानूनी अनुमोदन प्रस्तुत किया जाए) । (i) स्थल अवस्थान, (ii) प्रस्तावित स्थल (पांच सौ मीटर के भीतर आसपास के लक्षणों) और (iii) सामुचित मापमान के स्थल (स्तर और समोच्च रेखा उपदर्शित करते हुए) के नक्शे संलग्न करें । यदि उपलब्ध नहीं है तो केवल अवधारणा युक्त योजना संलग्न करें ।

1.2 भूमि क्षेत्र, निर्मित क्षेत्र, जल उपभोग, विद्युत अपेक्षा, संयोजकता, सामुदायिक सुविधाएं, पार्किंग आवश्यकताओं आदि के अनुसार सभी बड़ी परियोजना की आवश्यकताओं को सूचीबद्ध करें ।

1.3 प्रस्तावित स्थल से संलग्न विद्यमान सुविधाओं पर प्रस्तावित क्रियाकलाप के [illegible] जैसे खुले स्थल, सामुदायिक सुविधाएं, विद्यमान भूमि उपयोग के ब्यौरे, स्थानीय पारिस्थिति [illegible]

1.4 क्या किसी महत्वपूर्ण भूमि चिह्न के परिणामस्वरूप भूस्खलन, [illegible] किस्म, ढाल विश्लेषण, भूमि कटाव की संवेदनशीलता, भूकंपन आदि के ब्यौरे दिए [illegible]

1.5 क्या प्राकृतिक मल निकास प्रणाली के परिवर्तन से संबंधित प्रस्ताव है ? (प्रस्तावित परियोजना स्थल के निकट प्राकृतिक मल निकासी को दर्शित करते हुए किसी समोच्च नक्शे के ब्यौरे दें)

1.6 निर्माण क्रियाकलाप – कर्तन, भरण, भूमि सुधार आदि में अंतर्वलित भूमि कार्य की मात्राएं क्या हैं ? (अंतर्वलित भूमि कार्य, स्थल आदि के बाहर से सामग्री भरने के परिवहन के ब्यौरे दें)

1.7 निर्माण अवधि के दौरान जल प्रदाय अपशिष्ट उठाई धराई आदि के संबंध में ब्यौरे दें ।

1.8 क्या नीचे के क्षेत्रों और वेट लैंडस में परिवर्तन होंगे ? (वह ब्यौरे दें कि किस प्रकार निचले क्षेत्र और वेट लैंडस प्रस्तावित क्रियाकलापों से उपांतरित हो रहे हैं)

1.9 क्या निर्माण के दौरान निर्माण के कूड़ा करकट और अपशिष्ट से स्वास्थ्य को खतरा होगा ? (निर्माण के दौरान जिसके अंतर्गत निर्माण श्रम और व्ययन की युक्तियां भी हैं, जनित अपशिष्टों की विभिन्न किस्मों की मात्राएं दें ।)

2. जल पर्यावरण

2.1 विभिन्न उपयोगों की अपेक्षाओं के विश्लेषण सहित प्रस्तावित परियोजना के लिए जल अपेक्षा की कुल मात्रा दें । जल अपेक्षा की पूर्ति कैसे होगी । स्रोतों और मात्राओं का कथन करें तथा एक जल अतिशेष विवरण दें ।

2.2 जल के प्रस्तावित स्रोत की क्षमता क्या है ? (बहाव या प्राप्ति के आधार पर)

2.3 अपेक्षित जल की क्वालिटी क्या है यदि पूर्ति किसी नगर पालिक स्रोत से नहीं है ? (जल की क्वालिटी के वर्ग सहित भौतिक, रासायनिक, जैव वैज्ञानिक लक्षणों को दर्शित करें)

2.4 कितनी जल अपेक्षा की उपचारित बेकार जल के पुनः चक्रण से पूर्ति हो सकती है ? (मात्राओं, स्रोतों और उपयोगिताओं के ब्यौरे दें ।)

2.5 क्या अन्य उपयोक्ताओं से जल का उपयोजन होगा ? (कृपया अन्य विद्यमान उपयोगों और उपभोग की मात्राओं पर परियोजना के प्रभाव का निर्धारण करें)

2.6 प्रस्तावित क्रियाकलापों से प्राप्त बेकार जल से प्रदूषण के भार में क्या वृद्धि है ? (प्रस्तावित क्रियाकलापों से प्राप्त बेकार जल की मात्राओं और संघटन के ब्यौरे दें)

2.7 जल अपेक्षाओं की जल संचयन से हुई पूर्ति के ब्यौरे दें । सृजित सुविधाओं के ब्यौरें प्रस्तुत करें ।

2.8 दीर्घकालिक आधार पर निर्माण चरण के पश्चात् क्षेत्र की प्रस्तावित परियोजना के पूरा होने के लक्षणों (मात्रात्मकता के साथ-साथ क्वालिटी भी) के कारण भूमि उपयोग में हुए परिवर्तनों का क्या प्रभाव होगा ? क्या इससे बाढ़ या जल के जमा होने की किसी रूप में समस्या में वृद्धि होगी ?

2.9 भूमिगत जल पर प्रस्ताव के क्या प्रभाव होंगे ? (क्या भूमिगत जल में नल लगाया जाएगा ; भूमिगत जल की सारणी, पुनः प्रभारण क्षमता और सक्षम प्राधिकारी से अभिप्राप्त अनुमोदन यदि कोई हों के ब्यौरे दें)

2.10 भूमि और पनिलों को प्रदूषित करने वाले निर्माण क्रियाकलापों को बंद होने से रोकने के लिए क्या सावधानियां/कदम उठाए जाने हैं ? (प्रतिकूल प्रभावों से बचने के लिए मात्राओं और अपनाए जाने वाले उपायों के ब्यौरे दें)

2.11 स्थल के भीतर किस प्रकार तेज जल की व्यवस्था की जाएगी ? (क्षेत्र में बाढ़ से बचने के लिए किए गए उपबंध, समोच्च स्तरों के उपदर्शन के स्थल अभिन्यास सहित उपलब्ध कराई गई जल निकासी सुविधाओं के ब्यौरे का कथन करें)

2.12 क्या आवश्यक अवधि में विशेष रूप से निर्माण श्रमिकों के लगाए जाने से परियोजना स्थल के आसपास अस्वच्छता दशाएं उत्पन्न हो जाती हैं ? (उचित स्पष्टीकरण से न्यायोचित ठहराएं)

2.13 स्थल सुविधाओं पर संग्रहण, उपचार और जल निकासी के सुरक्षित व्ययन के लिए क्या व्यवस्था की जाती है ? (पुनःचक्रण और व्ययन के लिए प्रोद्योगिकी और सुविधओं सहित जनन, उपचार क्षमताओं की, चाहे जैसी हों मात्राओं के ब्यौरे दें)

2.14 दोहरी नलसाजी प्रणाली के ब्यौरे दें यदि उपयोग किए गए उपचारित अपशिष्ट का प्रसाधनों को बहाने या किसी अन्य उपयोग के लिए उपयोग किया जाता है ।

3 वनस्पति

3.1 क्या जैवविविधता पर परियोजना का कोई खतरा है ? (स्थानीय पारिस्थितिक प्रणाली का उसकी विशिष्ट बातों सहित यदि कोई हों वर्णन करें)

3.2 क्या निर्माण में वनस्पति की विस्तृत निकासी या उपांतरण अंतर्वलित है ? (परियोजना द्वारा प्रभावित वृक्षों और वनस्पति का विस्तृत लेखा जोखा दें)

3.3 महत्वपूर्ण स्थल की बातों पर प्रभावों को कम करने के लिए प्रस्तावित उपाय क्या हैं ? (किसी समुचित मापमान कि किसी अभिन्यास योजना सहित वृक्षारोपण, भूदृश्य, जल निकायों आदि के सृजन के प्रस्ताव के ब्यौरे दें)

4. जीव जन्तु

4.1 क्या जीव जन्तुओं, स्थलीय और जलीय रूप से किसी प्रकार हटाने या उनके चलने फिरने के लिए रूकावटें होने की संभावना है ? ब्यौरे दें ।

4.2 क्षेत्र के जीव जन्तुओं पर क्या कोई प्रत्यक्ष या अप्रत्यक्ष प्रभाव हैं ? ब्यौरे दें ।

4.3 जीवजन्तुओं पर प्रतिकूल प्रभावों को कम करने के लिए कारीडोर, मछली सीड़ियों आदि जैसे उपाय विहित करें ।

5. वायु पर्यावरण

5.1 क्या परियोजना से द्वीपों में गैसों के वायुमंडलीय सांद्रण में वृद्धि होगी और उसके परिणामस्वरूप ऊष्मा बढ़ेगी ? (प्रस्तावित निर्माणों के परिणामस्वरूप वर्धित यातायात बढ़ने को ध्यान में रखते हुए विक्षेपण आदर्शों पर आधारित अनुमानित मूल्यों सहित पृष्ठभूमि वायु क्वालिटी स्तरों के ब्यौरे दें)

5.2 धूल, जहरीली वाष्पों या अन्य परिसंकटमय गैसों के बनने पर क्या प्रभाव हैं ? सभी मौसम विज्ञान परिमापों के संबंध में ब्यौरे दें ।

5.3 क्या प्रस्ताव से यानों को पार्क करने के स्थल में कमी आएगी ? परिवहन अवसंरचना और सुधार के लिए प्रस्तावित उपायों के, जिसके अंतर्गत परियोजना स्थल के प्रवेश और निर्गम पर यातायात व्यवस्था भी है, विद्यमान स्तर के ब्यौरे दें ।

5.4 प्रत्येक प्रवर्ग के अधीन क्षेत्रों में आंतरिक सड़कों, बाइसिकिल मार्गों, पैदल यात्री मार्गों, पैदल मार्गों आदि पर चलने की पैटर्नों के ब्यौरे दें ।

5.5 क्या यातायात शोर और कंपन में महत्वपूर्ण वृद्धि होगी ? ऊपर वर्णित बातों को कम करने के लिए स्रोतों और प्रस्तावित उपायों के ब्यौरे दें ।

5.6 परियोजना स्थल के आसपास शोर स्तरों और कंपन तथा घिरी हुई वायु की क्वालिटी पर डीजी सेटों और अन्य उपस्करों पर क्या प्रभाव होगा ? ब्यौरे दें ।

6. सौन्दर्यबोद्धी

6.1 क्या प्रस्तावित निर्माणों के परिणामस्वरूप किसी दृश्य, दृश्यसुविधा या भूदृश्य में रूकावट होगी ? क्या प्रस्तावको ने इन बातों पर विचार कर लिया है ?

6.2 क्या विद्यमान परिनिर्माणों पर नए निर्माण से कोई प्रतिकूल प्रभाव होगा ? किन बातों को ध्यान में रखा गया है ?

6.3 क्या डिजाइन मापमान को प्रभावित करने वाले शहर रूपी या शहरी डिजाइनों का कोई स्थानीय आकलन है ? उनका स्पष्ट रूप से उल्लेख किया जा सकता है ।

6.4 क्या कोई मानव विज्ञान संबंधी या पुरातत्वीय स्थल या बाह्य चीजें आसपास में हैं ? कथन करें यदि कोई अन्य महत्वपूर्ण बात, जिसपर प्रस्तावित स्थल के परिक्षेत्र में होने पर विचार किया गया है ।

7 सामाजिक - आर्थिक पहलू

7.1 क्या प्रस्ताव के परिणामस्वरूप स्थानीय जनता के समाज संबंधी परिनिर्माणों में कोई परिवर्तन होगा ? ब्यौरे दें ।

7.2 प्रस्तावित परियोजना के आसपास विद्यमान सामाजिक अवसंरचना के ब्यौरे दें ।

7.3 क्या परियोजना से स्थानीय समुदायों पर प्रतिकूल प्रभाव, पवित्र स्थलों या अन्य सांस्कृतिक मूल्यों में विघ्न पड़ेगा ? प्रस्तावित सुरक्षापाय क्या हैं ?

8 निर्माण सामग्री

8.1 अधिक ऊर्जा संहित निर्माण सामग्री का उपयोग हो सकेगा । क्या ऊर्जा दक्ष प्रक्रियाओं सहित निर्माण सामग्री उत्पादित की जाती है ? (निर्माण सामग्री और उनकी ऊर्जा दक्षता का चयन करने में ऊर्जा संरक्षण उपायों के ब्यौरे दें)

8.2 निर्माण के दौरान सामग्री का परिवहन और उठाई धराई के कारण प्रदूषण, शोर और लोक अशान्ति हो सकती है । इन प्रभावों को कम करने के लिए क्या उपाय किए जाने हैं ?

8.3 क्या सड़कों और ढ़ाचों में पुनः चक्रित सामग्री उपयोग की जाती है ? की गई बचतों की सीमा का कथन करें ?

8.4 परियोजना के प्रचालन संबंधी चरणों के दौरान हुए कूड़े के संग्रहण, पृथक्करण और व्ययन की पद्धति के ब्यौरे दें ।

9 ऊर्जा संरक्षण

9.1 विद्युत अपेक्षा प्रदाय के स्रोत, स्रोत आदि की पृष्ठभूमि आदि के ब्यौरे दें । निर्मित क्षेत्र में प्रति वर्ग फुट ऊर्जा खपत कितनी है ? ऊर्जा खपत को कम करने के लिए क्या प्रयास किए गए हैं ?

9.2 विद्युत की पृष्ठभूमि की किस्म और क्षमता, जिसको देने की आपकी योजना है, क्या है ?

9.3 उपयोग किए जाने वाले कांच के अभिलक्षण क्या हैं ? शार्ट वेव और लांग वेव विकिरण दोनों से संबंधित उसके अभिलक्षणों के निर्देश दें ।

9.4 भवन में कौन से अप्रत्यक्ष सौर वास्तविक कारक उपयोग किए जा रहे हैं ? प्रस्तावित परियोजना में किए गए उपयोजन को स्पष्ट करें ।

9.5 क्या गलियों और भवनों के अभिन्यास सौर ऊर्जा युक्तियों की क्षमता को अधिकतम करते हैं ? क्या आपने भवन कम्प्लैक्स में उपयोग के लिए सड़क प्रकाशन आपात प्रकाशन और सौर तप्त जल प्रणालियों के उपयोग पर विचार कर लिया है ? ब्यौरों का सार दें ।

9.6 क्या प्रशीतन/तापन भार को कम करने के लिए शेडिंग का प्रभावी रूप से उपयोग किया जाता है ? पूर्व और पश्चिम की दीवारों और छत पर शेडिंग को अधिकतम करने के लिए उपयोग करने के सिद्धांत क्या हैं ?

9.7 क्या परिनिर्माणों में ऊर्जा दक्ष स्थल शीतन, प्रकाशन और यांत्रिक प्रणालियों का उपयोग किया जाता है ? तकनीकी ब्यौरे दें । ट्रांसफार्मरों और मोटर दक्षता प्रकाशन तीव्रता और वायु प्रशीतन भार धारणाओं के ब्यौरे दें । क्या आप सीएफसी एचसीएफसी फ्री चिलर्स का उपयोग कर रहे हैं ? विनिर्देश दें ।

9.8 सूक्ष्म जलवायु के परिवर्तन में भवन क्रियाकलापों के संभावित प्रभाव क्या हैं ? तप्त द्वीप और प्रतीपन प्रभावों के सृजन पर प्रस्तावित निर्माण के संभावित प्रभावों पर स्वतः निर्धारण का उल्लेख करें ।

9.9 भवन आहाते के तापीय अभिलक्षण क्या हैं ? (क) छत ; (ख) बाह्य दीवारें ; और (ग) झरोखे ? उपयोग की गई सामग्री और व्यष्टिक संघटकों के यू मूल्यों या आर मूल्यों के ब्यौरे दें ।

9.10 अग्नि संकट के लिए प्रस्तावित सावधानियां और सुरक्षा उपाय क्या हैं ? आपात योजनाओं के ब्यौरे दें ।

9.11 दिवाल सामग्री के रूप में यदि कांच का उपयोग किया जाता है तो ब्यौरे और विनिर्देश जिसके अंतर्गत उत्सर्जनता और तापीय अभिलक्षण भी हैं, दें ।

9.12 भवन में वायु प्रवेशन की दर क्या है ? प्रवेशन के प्रभावों को कैसे कम कर रहे हैं, उसके ब्यौरे दें ।

9.13 समग्र ऊर्जा खपत में अपारंपरिक ऊर्जा प्रोद्योगिकियों का किसी सीमा तक उपयोग किया जाता है ? उपयोग की गई नवीकरणीय ऊर्जा प्रोद्योगिकियों के ब्यौरे दें ।

10 पर्यावरण प्रबंध योजना

पर्यावरण प्रबंध योजना में, निर्माण, प्रचालन और परियोजना के क्रियाकलापों के परिणामस्वरूप प्रतिकूल पर्यावरणीय प्रभावों को न्यूनतम करने के लिए समस्त जीवन चक्र के दौरान किए जाने वाले क्रियाकलापों की प्रत्येक मदवार के लिए सभी न्यूनतम करने वाले उपाय अंतर्विष्ट होंगे । इसमें विभिन्न पर्यावरणीय विनियमों के अनुपालन के लिए पर्यावरणीय मानिटरी योजना का आलेखन भी होगा । आपात की दशा में, जैसे स्थल पर दुर्घटना जिसके अंतर्गत आग लगना भी है, उठाए जाने वाले कदमों का कथन भी होगा ।

परिशिष्ट 3
(पैरा 7 देखें)

पर्यावरणीय समाघात निर्धारण दस्तावेज की साधारण संरचना

क्र.सं.	ईआईए संरचना	अंतर्वस्तु
1.	प्राक्कथन	• रिपोर्ट का प्रयोजन • परियोजना और परियोजना प्रस्तावक की पहचान • परियोजना की प्रकृति, आकार, अवस्थान का संक्षिप्त वर्णन और देश, प्रदेश में इसका महत्व • अध्ययन का विस्तार – किए गए विनियामक विस्तार के ब्यौरे (सौंपे गए कृत्यों के अनुसार)
2.	परियोजना वर्णन	• परियोजना के उन पहलुओं का संघनित वर्णन (परियोजना साध्यता अध्ययन पर आधारित) जिनकी पर्यावरणीय प्रभाव कारित करने की संभावना है । निम्नलिखित को स्पष्ट करने के लिए ब्यौरे उपबंधित किए जाने चाहिए : • परियोजना के किस्म • परियोजना की आवश्यकता • अवस्थान (साधारण अवस्थान, विनिर्दिष्ट अवस्थान, परियोजना सीमा और परियोजना स्थल अभिन्यास को दर्शित करते हुए नक्शे) • प्रचालन का आकार या विस्तार (जिसके अंतर्गत परियोजना द्वारा या उसके लिए अपेक्षित सहयोजित क्रियाकलाप) • अनुमोदन और कार्यान्वयन के लिए प्रस्तावित अनुसूची • प्रोद्योगिकी और प्रक्रिया वर्णन • परियोजना वर्णन, जिसके अंतर्गत परियोजना अभिन्यास, परियोजना आदि के संघटकों को दर्शित करते हुए आरेखन । साध्यता आरेखनों के स्कीमबद्ध प्रतिनिधित्व जो ईआईए परियोजना के लिए महत्वपूर्ण जानकारी दें । • पर्यावरणीय मानकों, पर्यावरणीय प्रचालन दशाओं या अन्य ईआईए अपेक्षाओं की पूर्ति के लिए परियोजनाओं में सम्मिलित न्यूनिकरण उपायों का वर्णन (विस्तार द्वारा यथाअपेक्षित) • प्रोद्योगिकीय असफलता के जोखिम के लिए नई और अपरीक्षित प्रोद्योगिकी का निर्धारण
3.	पर्यावरण का वर्णन	• अध्ययन क्षेत्र, अवधि, संघटक और पद्धति • विस्तार में पहचान किए गए मूल्यवान पर्यावरणीय संघटकों के लिए आधारिक लेखा की स्थापना • सभी पर्यावरणीय संघटकों के आधार नक्शे
4.	अनुमानित पर्यावरणीय समाघात और न्यूनीकरण उपाय	• परियोजना अवस्थान, संभावित दुर्घटनाओं, परियोजना डिजाइन, परियोजना निर्माण, नियमित प्रचालनों, पूरी की गई परियोजना को अंतिम रूप से बंद करना या पुर्नस्थापन के कारण अन्वेषित पर्यावरणीय समाघातों के ब्यौरे । • पहचान किए गए प्रतिकूल समाघातों न्यूनिकृत और/या दूर करने के लिए उपाय • पर्यावरणीय संघटकों के असंपरिवर्तनीय और पुनः प्राप्त न किए जा सकने वाले आश्वासन ।

		• समाघातों के महत्व का निर्धारण (महत्व महत्व निर्धारण का अवधारणा करने के लिए मानदण्ड) • न्यूनीकरण उपाय
5.	अनुकल्पियों का विश्लेषण (प्रोद्योगिकी और स्थल)	• यदि विस्तारित करने के कार्य के परिणामस्वरूप अनुकल्पियों की आवश्यकता होती है : • प्रत्येक अनुकल्पी का वर्णन • प्रत्येक अनुकल्पी के प्रतिकूल समाघातों का सार • प्रत्येक अनुकल्पी के लिए प्रस्तावित न्यूनीकरण उपाय और • अनुकल्पी का चयन
6.	पर्यावरणीय मानिटरी कार्यक्रम	• न्यूनीकरण उपायों की प्रभावशीलता को मानीटर करने के तकनीकी पहलू (जिसके अंतर्गत माप, पद्धति, आवर्त, अवस्थान, आंकड़े विश्लेषण, रिपोर्ट करने की अनुसूचियां, आपात प्रक्रियाएं, विस्तृत बजट और उपापन अनुसूचियां भी है)
7.	अतिरिक्त अध्ययन	• लोक परामर्श • जोखिम निर्धारण • सामाजिक समाघात निर्धारण आर और आर अनुवर्ती योजनाएं
8.	परियोजना के फायदे	• भौतिक अवसंरचना में सुधार • सामाजिक अवसंरचना में सुधार • नियोजन क्षमता - कुशल ; अर्धकुशल और अकुशल • अन्य मूर्त फायदे
9.	पर्यावरणीय लागत फायदा विश्लेषण	यदि विस्तारण प्रक्रम पर सिफारिश की जाती है ।
10.	ईएमपी	• यह सुनिश्चित करने के लिए कि न्यूनीकरण संबंधी उपाय कार्यान्वित किए गए हैं और ईआईए के अनुमोदन के पश्चात् उनकी प्रभावी मानीटरी की गई है, प्रशासनिक पहलुओं का वर्णन ।
11.	संक्षिप्त सार और निष्कर्ष (यह ईआईए रिपोर्ट का संक्षिप्त सार होगा)	• परियोजना के कार्यान्वयन के लिए समग्र औचित्य । • यह स्पष्टीकरण कि प्रतिकूल प्रभाव किस प्रकार कम किए जाते हैं
12.	नियोजित परामर्शियों का प्रकटन	• उनके संक्षिप्त कार्य और दिए गए परामर्श की प्रकृति सहित नियोजित किए गए परामर्शियों के नाम.

परिशिष्ट 3क

(पैरा 7 देखे)

संक्षिप्त पर्यावरणीय समाघात निर्धारण की अंतर्वस्तु

पर्यावरणीय समाघात निर्धारण का संक्षिप्त सार अधिकतम ए -4 आकार के दस पृष्ठों पर पूरी पर्यावरणीय समाघात निर्धारण का एक संक्षिप्त सार होगा । इसमें संक्षेप में अनिवार्य रूप से पूर्ण पर्यावरणीय समाघात निर्धारण रिपोर्ट के निम्नलिखित अध्याय होने चाहिएं :-

(1) परियोजना वर्णन :
(2) पर्यावरण का वर्णन :
(3) अनुमानित पर्यावरणीय समाघात और न्यूनीकरण उपाय :
(4) पर्यावरणीय मानीटरी कार्यक्रम :
(5) अतिरिक्त अध्ययन :
(6) परियोजना के फायदे :
(7) पर्यावरण प्रबंधन योजना :

परिशिष्ट 4

(पैरा 7 देखिए)

लोक सुनवाई को संचालित करने के लिए प्रक्रिया

1.0 लोक सुनवाई की, संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति द्वारा परियोजना स्थल (स्थलों) में या उसके निकटस्थ परिसर में जिला वार एक प्रणालीबद्ध, समयबद्ध और पारदर्शी रीति में अधिकतम संभव लोक भागीदारी को सुनिश्चित करते हुए व्यवस्था की जाएगी ।

2.0 प्रक्रिया :

2.1 आवेदक, उस राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति के सदस्य सचिव को, जिसकी अधिकारिता में परियोजना अवस्थित है, विहित कानूनी अवधि के भीतर लोक सुनवाई की व्यवस्था करने के लिए एक सादा पत्र के माध्यम से अनुरोध करेगा । यदि परियोजना स्थल का किसी राज्य या संघ राज्यक्षेत्र के परे विस्तार है तो प्रत्येक राज्य या संघ राज्यक्षेत्र में जिसमें परियोजना स्थित है, लोक सुनवाई आज्ञापक है और आवेदक, इस प्रक्रिया के अनुसार लोक सुनवाई करने के लिए प्रत्येक संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति को पृथक अनुरोध करेगा ।

2.2 आवेदक, अनुरोध पत्र के साथ प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट की कम से कम दस हार्ड प्रतियां और उसी के बराबर सॉफ्ट (इलैक्ट्रानिक) प्रतियां, परिशिष्ट 3 में दी गई सामान्य संरचना सहित (जिसके अंतर्गत विस्तार (प्रक्रम 2) के पश्चात् संसूचित किए गए सौंपे गए कृत्यों के अनुसार निर्बाध रूप से अंग्रेजी और स्थानीय भाषा में तैयार की गई संक्षिप्त पर्यावरणीय समाघात निर्धारण रिपोर्ट सम्मिलित है) संलग्न की जाएगी । इसके साथ-साथ आवेदक संक्षिप्त पर्यावरणीय समाघात निर्धारण रिपोर्ट के साथ ऊपर प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट की एक हार्ड प्रति और एक सॉफ्ट प्रति पर्यावरण और वन मंत्रालय तथा निम्नलिखित प्राधिकारियों या कार्यालयों को जिनकी अधिकारिता में परियोजना अवस्थित होगी, अग्रेषित करने की व्यवस्था करेगा :

(क) जिला मजिस्ट्रेट

(ख) जिला परिषद या नगर निगम

(ग) जिला उद्योग कार्यालय

(घ) पर्यावरण और वन मंत्रालय का संबंधित प्रादेषिक कार्यालय

2.3 ऊपर उल्लिखित प्राधिकारी, पर्यावरण और वन मंत्रालय के सिवाय, प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट की प्राप्ति पर, अपनी अधिकारिताओं के भीतर, उसमें हितबद्ध व्यक्तियों से संबंधित विनियामक प्राधिकरणों को अपनी टीका-टिप्पणियां भेजने का अनुरोध करते हुए, विस्तृत प्रचार करने की व्यवस्था करेंगे । वे लोक सुनवाई होने तक सामान्य कार्यालय घंटों के दौरान जनता को इलैक्ट्रानिक रूप से या अन्यथा निरीक्षण करने के लिए प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट भी उपलब्ध कराएंगे । पर्यावरण और वन मंत्रालय अपनी वेबसाइट पर प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट का सार तत्परता से प्रदर्शित करेगा और दिल्ली स्थित मंत्रालय में सामान्य कार्यालय घंटों के दौरान किसी अधिसूचित स्थान पर निर्देश के लिए पूरे प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट को भी उपलब्ध करेगा ।

2.4 संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्य प्रदूषण नियंत्रण समिति भी राज्य/संघ राज्यक्षेत्र के भीतर परियोजना की बाबत प्रचार करने के लिए उसी प्रकार की व्यवस्था करेगी और चयनित कार्यालयों या लोक पुस्तकालयों या पंचायतों आदि में निरीक्षण के लिए प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट (परिशिष्ट 3क) का संक्षिप्त सार उपलब्ध कराएगी । वे उपर्युक्त पांच प्राधिकारियों/कार्यालयों अर्थात् पर्यावरण और वन मंत्रालय, जिला मजिस्ट्रेट आदि को प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट की एक प्रति अतिरिक्त रूप से भी उपलब्ध कराएंगे ।

3.0 लोक सुनवाई की सूचना

3.1 संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति का सदस्य सचिव परियोजना सलाहकार से प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट की प्राप्ति की तारीख से तीस दिनों के भीतर लोक सुनवाई संचालित करने के लिए तारीख, समय और निश्चित स्थान को अंतिम रूप देगा और उसको मुख्य राष्ट्रीय दैनिक में और एक प्रादेशिक भाषा के दैनिक समाचारपत्र में विज्ञापित करेगा । जनता को अपनी प्रतिक्रियाएं देने के लिए कम से कम तीस दिनों की सूचना उपलब्ध कराई जाएगी ;

3.2 विज्ञापन, जनता को उन स्थानों या कार्यालयों की बाबत भी सूचित करेगा जहां प्रारूप पर्यावरणीय समाघात निर्धारण रिपोर्ट और पर्यावरणीय समाघात निर्धारण रिपोर्ट के संक्षिप्त सार तक सुनवाई से पूर्व जनता की पहुंच हो सके ;

3.3 लोक सुनवाई की तारीख, समय और स्थान को तब तक आस्थगित नहीं किया जाएगा जब तक कोई अवांछित आपात स्थिति न आ जाए और केवल संबंधित जिला मजिस्ट्रेट की सिफारिश पर किया आस्थगन को उन्हीं राष्ट्रीय और प्रादेषिक भाषा के समाचार पत्रों के माध्यम से अधिसूचित किया जाएगा तथा संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति द्वारा पहचान किए सभी कार्यालयों में मुख्य रूप से प्रदर्शित भी किया जाएगा ;

3.4 ऊपर आपवादिक परिस्थितियों में, केवल जिला मजिस्ट्रेट के परामर्श से संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति के सदस्य-सचिव द्वारा लोक परामर्श के लिए नई तारीख, समय और स्थान का विनिश्चय किया जाएगा और ऊपर 3.1 के अधीन प्रक्रिया के अनुसार नए सिरे से अधिसूचित किया जाएगा ।

4.0 पैनल

जिला मजिस्ट्रेट या किसी अपर जिला मजिस्ट्रेट से अन्यून की पंक्ति का उसका प्रतिनिधि, राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति के प्रतिनिधि की सहायता से समस्त लोक सुनवाई प्रक्रिया का पर्यवेक्षण करेगा और उसकी अध्यक्षता करेगा ।

5.0 वीडियोग्राफी

राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति, समस्त कार्यवाहियों की वीडियो फिल्म तैयार करने की व्यवस्था करेगी । संबंधित विनियामक प्राधिकरण को इसे अग्रेषित करते समय वीडियो टेप की एक प्रति या एक सीडी लोक सुनवाई कार्रवाईयों के साथ संलग्न की जाएगी ।

6.0 कार्यवाहियां

6.1 उन सभी व्यक्तियों की उपस्थिति को जो स्थल पर विद्यमान हैं, अंतिम कार्यवाहियों के साथ संलग्न किया जाएगा ।

6.2 कार्यवाहियों को आरंभ करने के लिए उपस्थिति हेतु कोई गणपूर्ति अपेक्षित नहीं होगी ।

6.3 आवेदक का कोई प्रतिनिधि, परियोजना और पर्यावरण समाघात निर्धारण रिपोर्ट के संक्षिप्त सार की प्रस्तुति के साथ कार्यवाहियां आरंभ करेगा ।

6.4 स्थल पर उपस्थित प्रत्येक व्यक्ति को, आवेदक से परियोजना पर सूचना या स्पष्टीकरण मांगने का अवसर दिया जाएगा । लोक सुनवाई कार्यवाहियों का संक्षिप्त सार ठीक रूप से प्रदर्शित करते हुए अभिव्यक्त सभी विचारों और अभिव्यक्त चिंताओं को राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति के प्रतिनिधि द्वारा अभिलिखित किया जाएगा और प्रांतीय भाषा में अंतर्वस्तुओं को स्पष्ट करते हुए कार्यवाहियों के अंत में श्रोताओं को पढ़ कर सुनाया जाएगा तथा करार पाए गए कार्यवृत्त पर उसी दिन जिला मजिस्ट्रेट या उसके प्रतिनिधि द्वारा हस्ताक्षर किए जाएंगे तथा संबंधित राज्य प्रदूषण नियंत्रण बोर्ड/संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति को अग्रेषित किया जाएगा ।

6.5 जनता द्वारा उठाए गए मुद्दों का एक विवरण और आवेदक की टीका-टिप्पणियों को भी स्थानीय भाषा में और अंग्रेजी भाषा में तैयार किया जाएगा तथा कार्यवाहियों के साथ संलग्न किया जाएगा ।

6.6 लोक सुनवाई की कार्यवाहियों को उस पंचायत घर के कार्यालय पर, जिसकी अधिकारिता में परियोजना अवस्थित है, संबंधित जिला परिषद, जिला मजिस्ट्रेट और राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति के कार्यालय में सहजदृश्य रूप से प्रदर्शित किया जाएगा । राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति साधारण जानकारी के लिए अपने वेबसाइट पर कार्यवाहियों को प्रदर्शित भी करेगी । कार्यवाहियों पर टीका-टिप्पणियों को, यदि कोई हों, संबंधित विनियामक प्राधिकरणों और संबंधित आवेदक को प्रत्यक्षतः भेजी जा सकेगी ।

7.0 लोक सुनवाई को पूरा करने के लिए कालावधि :

7.1 लोक सुनवाई, आवेदक से अनुरोध पत्र की प्राप्ति की तारीख से पैंतालीस दिन की अवधि के भीतर पूरी की जाएगी । अतः संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्यक्षेत्र प्रदूषण नियंत्रण समिति लोक सुनवाई के पूरा होने के आठ दिनों के भीतर संबंधित विनियामक प्राधिकरण को लोक सुनवाई की कार्यवाहियों को भेजेगी । आवेदक, लोक सुनवाई और लोक परामर्श के पश्चात् तैयार की गई अंतिम पर्यावरणीय समाघात निर्धारण रिपोर्ट या प्रारूप पर्यावरण समाघात निर्धारण रिपोर्ट पर अनुपूरक रिपोर्ट की प्रति के साथ संबंधित विनियामक प्राधिकरण को, अनुमोदित लोक सुनवाई कार्यवाहियों की एक प्रति प्रत्यक्षतः भी अग्रेषित करेगा ।

7.2 यदि राज्य प्रदूषण नियंत्रण बोर्ड या संघ राज्य क्षेत्र प्रदूषण नियंत्रण समिति, नियत पैंतालीस दिनों के भीतर लोक सुनवाई करने में असफल रहती है तो केन्द्रीय सरकार, पर्यावरण और वन मंत्रालय, प्रवर्ग 'क' परियोजना या क्रियाकलाप के लिए और प्रवर्ग ख परियोजना या क्रियाकलाप के लिए और राज्य सरकार या संघ राज्यक्षेत्र प्रशासन, राज्य पर्यावरणीय समाघात निर्धारण प्राधिकरण के अनुरोध पर, किसी अन्य अभिकरण या प्राधिकरण को इस अधिसूचना में अधिकथित प्रक्रिया के अनुसार प्रक्रिया को पूरा करने के लिए नियोजित करेगी ।

परिशिष्ट 5

(पैरा 7 देखिए)

आंकलन के लिए विहित प्रक्रिया

1. आवेदक, संबंधित विनियामक प्राधिकरण को निम्नलिखित दस्तावेजों को संलग्न करते हुए, जहां लोक परामर्श आज्ञापक है, एक सादा सूचना के माध्यम से आवेदन करेगा :-

- अंतिम पर्यावरण समाघात निर्धारण रिपोर्ट की बीस हार्ड प्रतियां और एक साफ्ट प्रति
- लोक सुनवाई की कार्यवाहियों की वीडियो टेप की एक प्रति या सी.डी.
- अंतिम अभिन्यास योजना की बीस प्रतियां
- परियोजना साध्यता रिपोर्ट की एक प्रति

2. आवेदक द्वारा प्रस्तुत की गई अंतिम पर्यावरणीय समाघात निर्धारण रिपोर्ट और अन्य सुसंगत दस्तावेजों की संबंधित विनियामक प्राधिकरण द्वारा उसकी प्राप्ति की तारीख से तीस दिनों के भीतर कार्यालय में तत्परता से टीओआर के प्रतिनिर्देश से समीक्षा की जाएगी और ध्यान में रखी गई अपर्याप्तताओं को प्रत्येक अंतिम पर्यावरणीय समाघात निर्धारण रिपोर्ट की एक प्रति संलग्न करते हुए, जिसके अंतर्गत लोक सुनवाई कार्यवाहियां और प्राप्त की गई अन्य लोक प्रतिक्रियाएं भी हैं, प्ररूप 1 या प्ररूप 1क की एक प्रति और प्रस्तावों पर विचार करने के लिए पर्यावरणीय निर्धारण समिति/राज्य पर्यावरणीय निर्धारण समिति की बैठकों के लिए निश्चित तारीखें सहित पर्यावरणीय निर्धारण समिति/राज्य पर्यावरणीय निर्धारण समिति के सदस्यों को एकल सेट में इलेक्ट्रानिक रूप से या अन्यथा संसूचित किया जाएगा ।

3. जहां कोई लोक परामर्श आज्ञापक नहीं है और इसलिए कोई औपचारिक पर्यावरणीय समाघात निर्धारण अध्ययन अपेक्षित नहीं है, वहां आंकलन, विहित आवेदन प्ररूप 1 के आधार पर और अनुसूची की मद 8 से भिन्न सभी परियोजनाओं और क्रियाकलापों की दशा में किसी पूर्व साध्यता रिपोर्ट के आधार पर किया जाएगा । अनुसूची की मद 8 की दशा में, इसके विलक्षण परियोजना चक्र को ध्यान में रखते हुएं, संबंधित पर्यावरणीय निर्धारण समिति या राज्य पर्यावरणीय निर्धारण समिति, प्ररूप 1, प्ररूप 1क और धारणा योजना के आधार पर सभी प्रवर्ग 'ख' परियोजनाओं या क्रियाकलापों का आंकलन करेगी और पर्यावरणीय अनापत्ति के लिए शर्तें नियत करेंगी । जब कभी आवेदक सभी अन्य आवश्यक कानूनी अनुमोदनों सहित निश्चित पर्यावरणीय अनापत्ति शर्तों को पूरा करते हुए अनुमोदित स्कीम/भवन योजना प्रस्तुत करता है तो पर्यावरणीय निर्धारण समिति/राज्य पर्यावरणीय निर्धारण समिति, सक्षम प्राधिकारी को पर्यावरणीय अनापत्ति मंजूर करने की सिफारिश करेगी ।

4. प्रत्येक आवेदन, पर्यावरणीय निर्धारण समिति/राज्य पर्यावरणीय निर्धारण समिति के समक्ष और इसका पूरा आंकलन, विहित रीति में अपेक्षित दस्तावेजों/ब्यौरों सहित इसकी प्राप्ति के साठ दिनों के भीतर रखा जाएगा ।

5. आवेदक को परियोजना प्रस्ताव पर विचार करने के लिए पर्यावरणीय निर्धारण समिति/राज्य पर्यावरणीय निर्धारण समिति की निश्चित तारीख से कम से कम पन्द्रह दिन पूर्व सूचित किया जाएगा ।

6. पर्यावरणीय निर्धारण समिति/राज्य पर्यावरणीय निर्धारण समिति की बैठक के कार्यवृत्त को बैठक के पांच कार्यकरण दिनों के भीतर अंतिम रूप दिया जाएगा और संबंधित विनियामक प्राधिकरण के वेबसाइट पर प्रदर्शित किया जाएगा । परियोजना या क्रियाकलापों को पर्यावरणीय अनापत्ति को मंजूर किए जाने के लिए सिफारिश की दशा में, कार्यवृत्त में विनिर्दिष्ट पर्यावरणीय सुरक्षापायों और शर्तों को स्पष्ट रूप से सूचीबद्ध किया जाएगा । यदि सिफारिशें नामंजूर करने के लिए हैं तो उसके कारणों को भी स्पष्ट रूप से कथित किया जाएगा ।

परिशिष्ट 6

(पैरा 5 देखिए)

केन्द्रीय सरकार द्वारा गठित की जाने वाली प्रवर्ग 'क' परियोजनाओं के लिए सेक्टर/परियोजना विनिर्दिष्ट विशेषज्ञ आंकलन समिति और प्रवर्ग 'ख' परियोजनाओं के लिए राज्य/संघ राज्यक्षेत्र स्तर विशेषज्ञ आंकलन समितियों की संरचना

1. विशेषज्ञ आंकलन समितियां और राज्य/संघ राज्यक्षेत्र स्तर विशेषज्ञ आंकलन समितियां केवल निम्नलिखित पात्रता कसौटी को पूरा करने वाले वृत्तिकों और विशेषज्ञों से मिलकर बनेगी

वृत्तिक : ऐसा व्यक्ति जिसके पास कम से कम (i) एम.ए./एम.एस.सी डिग्री सहित संबंधित विद्या शाखा में पांच वर्ष का औपचारिक विश्वविद्यालय प्रशिक्षण या (ii) इंजीनयरी/प्रौद्योगिकी/वास्तुविद विद्या शाखाओं की दशा में, बी.टेक/बी.ई./बी.आर्क. डिग्री सहित क्षेत्र में विहित व्यावहारिक प्रशिक्षण सहित किसी वृत्तिक प्रशिक्षण पाठ्यक्रम में चार वर्षीय औपचारिक प्रशिक्षण या (iii) अन्य वृत्तिक डिग्री (जैसे विधि) जिसमें पांच वर्ष का औपचारिक विश्वविद्यालय प्रशिक्षण या विहित व्यावहारिक प्रशिक्षण अंतर्वलित है, या (iv) विहित शिक्षुता/कारीगारी तथा संबंधित वृत्तिक संगम द्वारा संचालित परिक्षाएं उत्तीर्ण की हो (जैसे चार्टर्ड अकाउंटेंसी) या (v) किसी विश्वविद्यालय डिग्री के पश्चात् किसी विश्वविद्यालय या सेवा अकादमी में दो वर्ष का औपचारिक प्रशिक्षण (जैसे एम.बी.ए./आई.ए.एस./आई.एफ.एस.) व्यष्टि वृत्तकों का चयन करते समय उनके द्वारा उनके क्षेत्रों में प्राप्त अनुभव को ध्यान में रखा जाएगा ।

विशेषज्ञ : ऊपर पात्रता कसौटी को पूरा करने वाला कोई वृत्तिक जिसके पास क्षेत्र में कम से कम पंद्रह वर्ष का सुसंगत अनुभव या संबंधित क्षेत्र में कोई उच्चतर डिग्री हो (जैसे पी.एच.डी. और कम से कम दस वर्ष का सुसंगत अनुभव) ।

आयु : सत्तर वर्ष से नीचे । तथापि, किसी क्षेत्र में विशेषज्ञों की अनुपलब्धता/कमी की दशा में विशेषज्ञ आंकलन समिति के सदस्यों की अधिकतम आयु को पचहतर वर्ष तक अनुज्ञात किया जा सकेगा ।

2. पर्यावरणीय निर्धारण समिति के सदस्य निम्नलिखित क्षेत्रों/विद्या शाखाओं में अपेक्षित विशेषज्ञता और अनुभव वाले विशेषज्ञ होंगे । उस दशा में कि "विशेषज्ञ" की कसौटी को पूरा करने वाले व्यक्ति उपलब्ध नहीं हैं, तो उसी क्षेत्र में पर्याप्त अनुभव रखने वाले वृत्तिकों पर भी विचार किया जा सकेगा ।

- पर्यावरण क्वालिटी विशेषज्ञ : पर्यावरणीय क्वालिटी के संबंध में माप/मानिटरी, विश्लेषण और निर्वचन में विशेषज्ञ ।

- परियोजना प्रबंधन में क्षेत्रीय विशेषज्ञ : परियोजना प्रबंधन या सुसंगत क्षेत्रों में प्रक्रिया /प्रचालन/सुविधा प्रबंधन में विशेषज्ञ ।

- पर्यावरणीय समाघात निर्धारण प्रक्रिया विशेषज्ञ : पर्यावरणीय समाघात निर्धारण का संचालन और कार्यान्वयन तथा पर्यावरणीय प्रबंधन योजना और अन्य प्रबंधन योजना तैयार करने में विशेषज्ञ और जो पर्यावरणीय समाघात निर्धारण प्रक्रिया में उपयोग की जाने वाली भावी तकनीकों और औजारों में विस्तृत विशेषज्ञता और ज्ञान रखते हों ।

- जोखिम निर्धारण विशेषज्ञ ।

- पेड़ - पौधे और जीव- जन्तु प्रबंधन में प्राणी विज्ञान विशेषज्ञ ।

- वन और वन्य जीव विशेषज्ञ ।

- परियोजना आंकलन में अनुभव सहित पर्यावरणीय अर्थशास्त्र विशेषज्ञ ।

3. पर्यावरणीय निर्धारण समिति की सदस्यता पंद्रह नियमित सदस्यों से अधिक की नहीं होगी । तथापि, अध्यक्ष, समिति की किसी विशिष्ट बैठक के लिए किसी सुसंगत क्षेत्र में किसी विशेषज्ञ को सदस्य के रूप में सहयोजित कर सकेगा ।

4. अध्यक्ष, सुसंगत विकास क्षेत्र में एक प्रतिष्ठित और पर्यावरणीय निति या प्रबंधन में अथवा लोक प्रशासन में अनुभव प्राप्त विशेषज्ञ होगा ।

5. अध्यक्ष, सदस्यों में से एक सदस्य को उपाध्यक्ष के रूप में नामनिर्देशित करेगा जो अध्यक्ष की अनुपस्थिति में पर्यावरणीय निर्धारण समिति की बैठक की अध्यक्षता करेगा ।

6. पर्यावरण और वन मंत्रालय का एक प्रतिनिधि उसके सचिव के रूप में समिति की सहायता करेगा ।

7. किसी सदस्य की अधिकतम पदावधि, जिसके अंतर्गत अध्यक्ष भी है, प्रत्येक तीन वर्ष की दो पदावधि होगी ।

8. अध्यक्ष/सदस्य को किसी कारण और समुचित जांच के बिना पदावधि के अवसान से पूर्व नहीं हटाया जा सकेगा ।

MINISTRY OF ENVIRONMENT AND FORESTS
NOTIFICATION

New Delhi, the 14th September, 2006

S.O. 1533(E).—Whereas, a draft notification under Sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986 for imposing certain restrictions and prohibitions on new projects or activities, or on the expansion or modernization of existing projects or activities based on their potential environmental impacts as indicated in the Schedule to the notification, being undertaken in any part of India[1], unless prior environmental clearance has been accorded in accordance with the objectives of National Environmment Policy as approved by the Union Cabinet on 18th May, 2006 and the procedure specified in the notification, by the Central Government or the State or Union Territory Level Environment Impact Assessment Authority (SEIAA), to be constituted by the Central Government in consultation with the State Government or the Union Territory Administration concerned under Sub-section (3) of Section 3 of the Environment (Protection) Act, 1986 for the purpose of this notification, was published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii) *vide* number S.O. 1324(E), dated the 15th September, 2005 inviting objections and suggestions from all persons likely to be affected thereby within a period of sixty days from the date on which copies of Gazette containing the said notification were made available to the public ;

And whereas, copies of the said notification were made available to the public on 15th September, 2005;

And whereas, all objections and suggestions received in response to the above mentioned draft notification have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986, read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 and in supersession of the notification number S.O. 60 (E) dated the 27th January, 1994, except in respect of things done or omitted to be done before such supersession, the Central Government hereby directs that on and from the date of its publication the required construction of new projects or activities or the expansion or modernization of existing projects or activities listed in the Schedule to this notification entailing capacity addition with change in process and or technology shall be undertaken in any part of India only after the prior environmental clearance from the Central Government or as the case may be, by the State Level Environment Impact Assessment Authority, duly constituted by the Central Government under sub-section (3) of section 3 of the said Act, in accordance with the procedure specified hereinafter in this notification.

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[1]Includes the territorial waters

2. **Requirements of prior Environmental Clearance (EC):-** The following projects or activities shall require prior environmental clearance from the concerned regulatory authority, which shall hereinafter referred to be as the Central Government in the Ministry of Environment and Forests for matters falling under Category 'A' in the Schedule and at State level the State Environment Impact Assessment Authority (SEIAA) for matters falling under Category 'B' in the said Schedule, before any construction work, or preparation of land by the project management except for securing the land, is started on the project or activity:

(i) All new projects or activities listed in the Schedule to this notification;

(ii) Expansion and modernization of existing projects or activities listed in the Schedule to this notification with addition of capacity beyond the limits specified for the concerned sector, that is, projects or activities which cross the threshold limits given in the Schedule, after expansion or modernization;

(iii) Any change in product - mix in an existing manufacturing unit included in Schedule beyond the specified range.

3. **State Level Environment Impact Assessment Authority:-** (1) A State Level Environment Impact Assessment Authority hereinafter referred to as the SEIAA shall be constituted by the Central Government under sub-section (3) of section 3 of the Environment (Protection) Act, 1986 comprising of three Members including a Chairman and a Member – Secretary to be nominated by the State Government or the Union territory Administration concerned.

(2) The Member-Secretary shall be a serving officer of the concerned State Government or Union territory administration familiar with environmental laws.

(3) The other two Members shall be either a professional or expert fulfilling the eligibility criteria given in Appendix VI to this notification.

(4) One of the specified Members in sub-paragraph (3) above who is an expert in the Environmental Impact Assessment process shall be the Chairman of the SEIAA.

(5) The State Government or Union territory Administration shall forward the names of the Members and the Chairman referred in sub- paragraph 3 to 4 above to the Central Government and the Central Government shall constitute the SEIAA as an authority for the purposes of this notification within thirty days of the date of receipt of the names.

(6) The non-official Member and the Chairman shall have a fixed term of three years (from the date of the publication of the notification by the Central Government constituting the authority).

(7) All decisions of the SEIAA shall be unanimous and taken in a meeting.

4. **Categorization of projects and activities:-**

(i) All projects and activities are broadly categorized in to two categories - Category A and Category B, based on the spatial extent of potential impacts and potential impacts on human health and natural and man made resources.

(ii) All projects or activities included as Category 'A' in the Schedule, including expansion and modernization of existing projects or activities and change in product mix, shall require prior environmental clearance from the Central Government in the Ministry of Environment and Forests (MoEF) on the recommendations of an Expert Appraisal Committee (EAC) to be constituted by the Central Government for the purposes of this notification;

(iii) All projects or activities included as Category 'B' in the Schedule, including expansion and modernization of existing projects or activities as specified in sub paragraph (ii) of paragraph 2, or change in product mix as specified in sub paragraph (iii) of paragraph 2, but excluding those which fulfill the General Conditions (GC) stipulated in the Schedule, *will* require prior environmental clearance from the State/Union territory Environment Impact Assessment Authority (SEIAA). The SEIAA shall base its decision on the recommendations of a State or Union territory level Expert Appraisal Committee (SEAC) as to be constituted for in this notification. In the absence of a duly constituted SEIAA or SEAC, a Category 'B' project shall be treated as a Category 'A' project;

5. Screening, Scoping and Appraisal Committees:-

The same Expert Appraisal Committees (EACs) at the Central Government and SEACs (hereinafter referred to as the (EAC) and (SEAC) at the State or the Union territory level shall screen, scope and appraise projects or activities in Category 'A' and Category 'B' respectively. EAC and SEAC's shall meet at least once every month.

(a) The composition of the EAC shall be as given in Appendix VI. The SEAC at the State or the Union territory level shall be constituted by the Central Government in consultation with the concerned State Government or the Union territory Administration with identical composition;

(b) The Central Government may, with the prior concurrence of the concerned State Governments or the Union territory Administrations, constitutes one SEAC for more than one State or Union territory for reasons of administrative convenience and cost;

(c) The EAC and SEAC shall be reconstituted after every three years;

(d) The authorised members of the EAC and SEAC, concerned, may inspect any site(s) connected with the project or activity in respect of which the prior environmental clearance is sought, for the purposes of screening or scoping or appraisal, with prior notice of at least seven days to the applicant, who shall provide necessary facilities for the inspection;

(e) The EAC and SEACs shall function on the principle of collective responsibility. The Chairperson shall endeavour to reach a consensus in each case, and if consensus cannot be reached, the view of the majority shall prevail.

6. Application for Prior Environmental Clearance (EC):-

An application seeking prior environmental clearance in all cases shall be made in the prescribed Form 1 annexed herewith and Supplementary Form 1A, if applicable, as given in Appendix II, after the identification of prospective site(s) for the project and/or activities to which the application relates, before commencing any construction activity, or preparation of land, at the site by the applicant. The applicant shall furnish, along with the application, a copy of the pre-feasibility project report except that, in case of construction projects or activities (item 8 of the Schedule) in addition to Form 1 and the Supplementary Form 1A, a copy of the conceptual plan shall be provided, instead of the pre-feasibility report.

7. Stages in the Prior Environmental Clearance (EC) Process for New Projects:-

7(i) The environmental clearance process for new projects will comprise of a maximum of four stages, all of which may not apply to particular cases as set forth below in this notification. These four stages in sequential order are:-

- Stage (1) Screening (Only for Category 'B' projects and activities)
- Stage (2) Scoping
- Stage (3) Public Consultation
- Stage (4) Appraisal

I. **Stage (1) - Screening**:

In case of Category 'B' projects or activities, this stage will entail the scrutiny of an application seeking prior environmental clearance made in Form 1 by the concerned State level Expert Appraisal Committee (SEAC) for determining whether or not the project or activity

requires further environmental studies for preparation of an Environmental Impact Assessment (EIA) for its appraisal prior to the grant of environmental clearance depending up on the nature and location specificity of the project . The projects requiring an Environmental Impact Assessment report shall be termed Category 'B1' and remaining projects shall be termed Category 'B2' and will not require an Environment Impact Assessment report. For categorization of projects into B1 or B2 except item 8 (b), the Ministry of Environment and Forests shall issue appropriate guidelines from time to time.

II. **Stage (2) - Scoping:**

(i) "Scoping": refers to the process by which the Expert Appraisal Committee in the case of Category 'A' projects or activities, and State level Expert Appraisal Committee in the case of Category 'B1' projects or activities, including applications for expansion and/or modernization and/or change in product mix of existing projects or activities, determine detailed and comprehensive Terms Of Reference (TOR) addressing all relevant environmental concerns for the preparation of an Environment Impact Assessment (EIA) Report in respect of the project or activity for which prior environmental clearance is sought. The Expert Appraisal Committee or State level Expert Appraisal Committee concerned shall determine the Terms of Reference on the basis of the information furnished in the prescribed application Form1/Form 1A including Terms of Reference proposed by the applicant, a site visit by a sub- group of Expert Appraisal Committee or State level Expert Appraisal Committee concerned only if considered necessary by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned, Terms of Reference suggested by the applicant if furnished and other information that may be available with the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned. All projects and activities listed as Category 'B' in Item 8 of the Schedule (Construction/Township/Commercial Complexes /Housing) shall not require Scoping and will be appraised on the basis of Form 1/ Form 1A and the conceptual plan.

(ii) The Terms of Reference (TOR) shall be conveyed to the applicant by the Expert Appraisal Committee or State Level Expert Appraisal Committee as concerned within sixty days of the receipt of Form 1. In the case of Category A Hydroelectric projects Item 1(c) (i) of the Schedule the Terms of Reference shall be conveyed along with the clearance for pre-construction activities .If the Terms of Reference are not finalized and conveyed to the applicant within sixty days of the receipt of Form 1, the Terms of Reference suggested by the applicant shall be deemed as the final Terms of Reference approved for the EIA studies. The approved Terms of Reference shall be displayed on the website of the Ministry of Environment and Forests and the concerned State Level Environment Impact Assessment Authority.

(iii) Applications for prior environmental clearance may be rejected by the regulatory authority concerned on the recommendation of the EAC or SEAC concerned at this stage itself. In case of such rejection, the decision together with reasons for the same shall be communicated to the applicant in writing within sixty days of the receipt of the application.

III. **Stage (3) - Public Consultation:**

(i) "Public Consultation" refers to the process by which the concerns of local affected persons and others who have plausible stake in the environmental impacts of the project or activity are ascertained with a view to taking into account all the material concerns in the project or activity design as appropriate. All Category 'A' and Category B1 projects or activities shall undertake Public Consultation, except the following:-

(a) modernization of irrigation projects (item 1(c) (ii) of the Schedule).

(b) all projects or activities located within industrial estates or parks (item 7(c) of the Schedule) approved by the concerned authorities, and which are not disallowed in such approvals.

(c) expansion of Roads and Highways (item 7 (f) of the Schedule) which do not involve any further acquisition of land.

(d) all Building /Construction projects/Area Development projects and Townships (item 8).

(e) all Category 'B2' projects and activities.

(f) all projects or activities concerning national defence and security or involving other strategic considerations as determined by the Central Government.

(ii) The Public Consultation shall ordinarily have two components comprising of:-

(a) a public hearing at the site or in its close proximity- district wise, to be carried out in the manner prescribed in Appendix IV, for ascertaining concerns of local affected persons;

(b) obtain responses in writing from other concerned persons having a plausible stake in the environmental aspects of the project or activity.

(iii) the public hearing at, or in close proximity to, the site(s) in all cases shall be conducted by the State Pollution Control Board (SPCB) or the Union territory Pollution Control Committee (UTPCC) concerned in the specified manner and forward the proceedings to the regulatory authority concerned within 45(forty five) of a request to the effect from the applicant.

(iv) in case the State Pollution Control Board or the Union territory Pollution Control Committee concerned does not undertake and complete the public hearing within the specified period, and/or does not convey the proceedings of the public hearing within the prescribed period directly to the regulatory authority concerned as above, the regulatory authority shall engage another public agency or authority which is not subordinate to the regulatory authority, to complete the process within a further period of forty five days,.

(v) If the public agency or authority nominated under the sub paragraph (iii) above reports to the regulatory authority concerned that owing to the local situation, it is not possible to conduct the public hearing in a manner which will enable the views of the concerned local persons to be freely expressed, it shall report the facts in detail to the concerned regulatory authority, which rnay, after due consideration of the report and other reliable information that it may have, decide that the public consultation in the case need not include the public hearing.

(vi) For obtaining responses in writing from other concerned persons having a plausible stake in the environmental aspects of the project or activity, the concerned regulatory authority and the State Pollution Control Board (SPCB) or the Union territory Pollution Control Committee (UTPCC) shall invite responses from such concerned persons by placing on their website the Summary EIA report prepared in the format given in Appendix IIIA by the applicant along with a copy of the application in the prescribed form , within seven days of the receipt of a written request for arranging the public hearing . Confidential information including non-disclosable or legally privileged information involving Intellectual Property Right, source specified in the application shall not be placed on the web site. The regulatory authority concerned may also use

other appropriate media for ensuring wide publicity about the project or activity. The regulatory authority shall, however, make available on a written request from any concerned person the Draft EIA report for inspection at a notified place during normal office hours till the date of the public hearing. All the responses received as part of this public consultation process shall be forwarded to the applicant through the quickest available means.

(vii) After completion of the public consultation, the applicant shall address all the material environmental concerns expressed during this process, and make appropriate changes in the draft EIA and EMP. The final EIA report, so prepared, shall be submitted by the applicant to the concerned regulatory authority for appraisal. The applicant may alternatively submit a supplementary report to draft EIA and EMP addressing all the concerns expressed during the public consultation.

IV. Stage (4) - Appraisal:

(i) Appraisal means the detailed scrutiny by the Expert Appraisal Committee or State Level Expert Appraisal Committee of the application and other documents like the Final EIA report, outcome of the public consultations including public hearing proceedings, submitted by the applicant to the regulatory authority concerned for grant of environmental clearance. This appraisal shall be made by Expert Appraisal Committee or State Level Expert Appraisal Committee concerned in a transparent manner in a proceeding to which the applicant shall be invited for furnishing necessary clarifications in person or through an authorized representative. On conclusion of this proceeding, the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned shall make categorical recommendations to the regulatory authority concerned either for grant of prior environmental clearance on stipulated terms and conditions, or rejection of the application for prior environmental clearance, together with reasons for the same.

(ii) The appraisal of all projects or activities which are not required to undergo public consultation, or submit an Environment Impact Assessment report, shall be carried out on the basis of the prescribed application Form 1 and Form 1A as applicable, any other relevant validated information available and the site visit wherever the same is considered as necessary by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned.

(iii) The appraisal of an application be shall be completed by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned within sixty days of the receipt of the final Environment Impact Assessment report and other documents or the receipt of Form 1 and Form 1 A, where public consultation is not necessary and the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee shall be placed before the competent authority for a final decision within the next fifteen days .The prescribed procedure for appraisal is given in Appendix V ;

7(ii). Prior Environmental Clearance (EC) process for Expansion or Modernization or Change of product mix in existing projects:

All applications seeking prior environmental clearance for expansion with increase in the production capacity beyond the capacity for which prior environmental clearance has been granted under this notification or with increase in either lease area or production capacity in the case of mining projects or for the modernization of an existing unit with increase in the total production capacity beyond the threshold limit prescribed in the Schedule to this notification through change in process and or technology or involving a change in the product –mix shall be made in Form 1 and they shall be considered by the concerned Expert Appraisal Committee or State Level Expert Appraisal Committee within sixty days, who will decide on the due diligence

necessary including preparation of EIA and public consultations and the application shall be appraised accordingly for grant of environmental clearance.

8.Grant or Rejection of Prior Environmental Clearance (EC):

(i) The regulatory authority shall consider the recommendations of the EAC or SEAC concerned and convey its decision to the applicant within forty five days of the receipt of the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned or in other words within one hundred and five days of the receipt of the final Environment Impact Assessment Report, and where Environment Impact Assessment is not required, within one hundred and five days of the receipt of the complete application with requisite documents, except as provided below.

(ii) The regulatory authority shall normally accept the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned. In cases where it disagrees with the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned, the regulatory authority shall request reconsideration by the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned within forty five days of the receipt of the recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned while stating the reasons for the disagreement. An intimation of this decision shall be simultaneously conveyed to the applicant. The Expert Appraisal Committee or State Level Expert Appraisal Committee concerned, in turn, shall consider the observations of the regulatory authority and furnish its views on the same within a further period of sixty days. The decision of the regulatory authority after considering the views of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned shall be final and conveyed to the applicant by the regulatory authority concerned within the next thirty days.

(iii) In the event that the decision of the regulatory authority is not communicated to the applicant within the period specified in sub-paragraphs (i) or (ii) above, as applicable, the applicant may proceed as if the environment clearance sought for has been granted or denied by the regulatory authority in terms of the final recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned.

(iv) On expiry of the period specified for decision by the regulatory authority under paragraph (i) and (ii) above, as applicable, the decision of the regulatory authority, and the final recommendations of the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned shall be public documents.

(v) Clearances from other regulatory bodies or authorities shall not be required prior to receipt of applications for prior environmental clearance of projects or activities, or screening, or scoping, or appraisal, or decision by the regulatory authority concerned, unless any of these is sequentially dependent on such clearance either due to a requirement of law, or for necessary technical reasons.

(vi) Deliberate concealment and/or submission of false or misleading information or data which is material to screening or scoping or appraisal or decision on the application shall make the application liable for rejection, and cancellation of prior environmental clearance granted on that basis. Rejection of an application or cancellation of a prior environmental clearance already granted, on such ground, shall be decided by the regulatory authority, after giving a personal hearing to the applicant, and following the principles of natural justice.

9. Validity of Environmental Clearance (EC):

The "Validity of Environmental Clearance" is meant the period from which a prior environmental clearance is granted by the regulatory authority, or may be presumed by the applicant to have been granted under sub paragraph (iv) of paragraph 7 above, to the start of production operations by the project or activity, or completion of all construction operations in case of construction projects (item 8 of the Schedule), to which the application for prior environmental clearance refers. The prior environmental clearance granted for a project or activity shall be valid for a period of ten years in the case of River Valley projects (item 1(c) of the Schedule), project life as estimated by Expert Appraisal Committee or State Level Expert Appraisal Committee subject to a maximum of thirty years for mining projects and five years in the case of all other projects and activities. However, in the case of Area Development projects and Townships [item 8(b)], the validity period shall be limited only to such activities as may be the responsibility of the applicant as a developer. This period of validity may be extended by the regulatory authority concerned by a maximum period of five years provided an application is made to the regulatory authority by the applicant - within the validity period, together with an updated Form 1, and Supplementary Form 1A, for Construction projects or activities (item 8 of the Schedule). In this regard the regulatory authority may also consult the Expert Appraisal Committee or State Level Expert Appraisal Committee as the case may be.

10. Post Environmental Clearance Monitoring:

(i) It shall be mandatory for the project management to submit half-yearly compliance reports in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.

(ii) All such compliance reports submitted by the project management shall be public documents. Copies of the same shall be given to any person on application to the concerned regulatory authority. The latest such compliance report shall also be displayed on the web site of the concerned regulatory authority.

11. Transferability of Environmental Clearance (EC):

A prior environmental clearance granted for a specific project or activity to an applicant may be transferred during its validity to another legal person entitled to undertake the project or activity on application by the transferor, or by the transferee with a written "no objection" by the transferor, to, and by the regulatory authority concerned, on the same terms and conditions under which the prior environmental clearance was initially granted, and for the same validity period. No reference to the Expert Appraisal Committee or State Level Expert Appraisal Committee concerned is necessary in such cases.

12. Operation of EIA Notification, 1994, till disposal of pending cases:

From the date of final publication of this notification the Environment Impact Assessment (EIA) notification number S.O.60 (E) dated 27th January, 1994 is hereby superseded, except in suppression of the things done or omitted to be done before such suppression to the extent that in case of all or some types of applications made for prior environmental clearance and pending on the date of final publication of this notification, the Central Government may relax any one or all provisions of this notification except the list of the projects or activities requiring prior environmental clearance in Schedule I , or continue operation of some or all provisions of the said notification, for a period not exceeding one year from the date of issue of this notification.

SCHEDULE

(See paragraph 2 and 7)

LIST OF PROJECTS OR ACTIVITIES REQUIRING PRIOR ENVIRONMENTAL CLEARANCE

Project or Activity		Category with threshold limit		Conditions if any
		A	B	
	1	**Mining, extraction of natural resources and power generation (for a specified production capacity)**		
(1)	(2)	(3)	(4)	(5)
1(a)	Mining of minerals	≥ 50 ha. of mining lease area Asbestos mining irrespective of mining area	<50 ha ≥ 5 ha .of mining lease area.	General Condition shall apply Note Mineral prospecting (not involving drilling) are exempted provided the concession areas have got previous clearance for physical survey
1(b)	Offshore and onshore oil and gas exploration, development & production	All projects		Note Exploration Surveys (not involving drilling) are exempted provided the concession areas have got previous clearance for physical survey
1(c)	River Valley projects	(i) ≥ 50 MW hydroelectric power generation; (ii) ≥ 10,000 ha. of culturable command area	(i) < 50 MW ≥ 25 MW hydroelectric power generation; (ii) < 10,000 ha. of culturable command area	General Condition shall apply
1(d)	Thermal Power Plants	≥ 500 MW (coal/lignite/naphta & gas based); ≥ 50 MW (Pet coke diesel and all other fuels -)	< 500 MW (coal/lignite/naptha & gas based); <50 MW ≥ 5MW (Pet coke ,diesel and all other fuels)	General Condition shall apply

(1)	(2)	(3)	(4)	(5)
1(e)	Nuclear power projects and processing of nuclear fuel	All projects		
2		**Primary Processing**		
2(a)	Coal washeries	≥ 1 million ton/annum throughput of coal	<1million ton/annum throughput of coal	General Condition shall apply (If located within mining area the proposal shall be appraised together with the mining proposal)
2 (b)	Mineral beneficiation	≥ 0.1million ton/annum mineral throughput	< 0.1million ton/annum mineral throughput	General Condition shall apply (Mining proposal with Mineral beneficiation shall be appraised together for grant of clearance)

3		Materials Production		
(1)	(2)	(3)	(4)	(5)
3(a)	Metallurgical industries (ferrous & non ferrous)	a)Primary metallurgical industry All projects b) Sponge iron manufacturing ≥ 200TPD c)Secondary metallurgical processing industry All toxic and heavy metal producing units ≥ 20,000 tonnes /annum	Sponge iron manufacturing <200TPD Secondary metallurgical processing industry i.)All toxic andheavymetal producing units <20,000 tonnes /annum ii.)All other non –toxic secondary metallurgical processing industries >5000 tonnes/annum	General Condition shall apply for Sponge iron manufacturing
3(b)	Cement plants	≥ 1.0 million tonnes/annum production capacity	<1.0 million tonnes/annum production capacity. All Stand alone grinding units	General Condition shall apply

4		**Materials Processing**		
(1)	(2)	(3)	(4)	(5)
4(a)	Petroleum refining industry	All projects	-	-
4(b)	Coke oven plants	≥2,50,000 tonnes/annum -	<2,50,000 & ≥25,000 tonnes/annum	-
4(c)	Asbestos milling and asbestos based products	All projects	-	-
4(d)	Chlor-alkali industry	≥300 TPD production capacityor a unit located out side the notified industrial area/ estate	<300 TPD production capacity and located within a notified industrial area/ estate	Specific Condition shall apply No new Mercury Cell based plants will be permitted and existing units converting to membrane cell technology are exempted from this Notification
4(e)	Soda ash Industry	All projects	-	-
4(f)	Leather/skin/hide processing industry	New projects outside the industrial area or expansion of existing units out side the industrial area	All new or expansion of projects located within a notified industrial area/ estate	Specific condition shall apply
5		**Manufacturing/Fabrication**		
5(a)	Chemical fertilizers	All projects	-	-
5(b)	Pesticides industry and pesticide specific intermediates (excluding formulations)	All units producing technical grade pesticides	-	-

(1)	(2)	(3)	(4)	(5)
5(c)	Petro-chemical complexes (industries based on processing of petroleum fractions & natural gas and/or reforming to aromatics)	All projects -	-	-
5(d)	Manmade fibres manufacturing	Rayon	Others	General Condition shall apply
5(e)	Petrochemical based processing (processes other than cracking & reformation and not covered under the complexes)	Located out side the notified industrial area/ estate -	Located in a notified industrial area/ estate	Specific Condition shall apply
5(f)	Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)	Located out side the notified industrial area/ estate	Located in a notified industrial area/ estate	Specific Condition shall apply
5(g)	Distilleries	(i)All Molasses based distilleries (ii) All Cane juice/ non-molasses based distilleries ≥30 KLD	All Cane juice/non-molasses based distilleries – <30 KLD	General Condition shall apply
5(h)	Integrated paint industry	-	All projects	General Condition shall apply

(1)	(2)	(3)	(4)	(5)
5(i)	Pulp & paper industry excluding manufacturing of paper from waste paper and manufacture of paper from ready pulp with out bleaching	Pulp manufacturing and Pulp& Paper manufacturing industry -	Paper manufacturing industry without pulp manufacturing	General Condition shall apply
5(j)	Sugar Industry	- -	≥ 5000 tcd cane crushing capacity	General Condition shall apply
5(k)	Induction/arc furnaces/cupola furnaces 5TPH or more	- -	All projects	General Condition shall apply
6		**Service Sectors**		
6(a)	Oil & gas transportation pipe line (crude and refinery/ petrochemical products), passing through national parks /sanctuaries/coral reefs /ecologically sensitive areas including LNG Terminal	All projects -		-

(1)	(2)	(3)	(4)	(5)
6(b)	Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000)	-	All projects	General Condition shall apply
7		**Physical Infrastructure including Environmental Services**		
7(a)	Air ports	All projects	-	-
7(b)	All ship breaking yards including ship breaking units	All projects	-	-
7(c)	Industrial estates/ parks/ complexes/ areas, export processing Zones (EPZs), Special Economic Zones (SEZs), Biotech Parks, Leather Complexes.	If at least one industry in the proposed industrial estate falls under the Category A, entire industrial area shall be treated as Category A, irrespective of the area. Industrial estates with area greater than 500 ha. and housing at least one Category B industry.	-Industrial estates housing at least one Category B industry and area <500 ha. Industrial estates of area> 500 ha. and not housing any industry belonging to Category A or B.	Special condition shall apply Note: Industrial Estate of area below 500 ha. and not housing any industry of category A or B does not require clearance.
7(d)	Common hazardous waste treatment, storage and disposal facilities (TSDFs)	All integrated facilities having incineration &landfill or incineration alone	All facilities having land fill only	General Condition shall apply

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(1)	(2)	(3)	(4)	(5)
7(e)	Ports, Harbours	≥ 5 million TPA of cargo handling capacity (excluding fishing harbours)	< 5 million TPA of cargo handling capacity and/or ports/ harbours ≥10,000 TPA of fish handling capacity	General Condition shall apply
7(f)	Highways	i) New National High ways; and ii) Expansion of National High ways greater than 30 KM, involving additional right of way greater than 20m involving land acquisition and passing through more than one State.	i) New State High ways; and ii) Expansion of National / State Highways greater than 30 km involving additional right of way greater than 20m involving land acquisition.	General Condition shall apply
7(g)	Aerial ropeways		All projects	General Condition shall apply
7(h)	Common Effluent Treatment Plants (CETPs)		All projects	General Condition shall apply
7(i)	Common Municipal Solid Waste Management Facility (CMSWMF)		All projects	General Condition shall apply

(1)	(2)	(3)	(4)	(5)
8		**Building /Construction projects/Area Development projects and Townships**		
8(a)	Building and Construction projects		≥20000 sq.mtrs and <1,50,000 sq.mtrs. of built-up area#	#(built up area for covered construction; in the case of facilities open to the sky, it will be the activity area)
8(b)	Townships and Area Development projects.		Covering an area ≥ 50 ha and or built up area ≥1,50,000 sq .mtrs ++	++All projects under Item 8(b) shall be appraised as Category B1

Note:-

General Condition (GC):

Any project or activity specified in Category 'B' will be treated as Category A, if located in whole or in part within 10 km from the boundary of: (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries.

Specific Condition (SC):

If any Industrial Estate/Complex / Export processing Zones /Special Economic Zones/Biotech Parks / Leather Complex with homogeneous type of industries such as Items 4(d), 4(f), 5(e), 5(f), or those Industrial estates with pre –defined set of activities (not necessarily homogeneous, obtains prior environmental clearance, individual industries including proposed industrial housing within such estates /complexes will not be required to take prior environmental clearance, so long as the Terms and Conditions for the industrial estate/complex are complied with (Such estates/complexes must have a clearly identified management with the legal responsibility of ensuring adherence to the Terms and Conditions of prior environmental clearance, who may be held responsible for violation of the same throughout the life of the complex/estate).

[No. J-11013/56/2004-IA-II(I)]
R. CHANDRAMOHAN, Jt. Secy.

APPENDIX I

(See paragraph – 6)

FORM 1

(I) Basic Information

Name of the Project:

Location / site alternatives under consideration:

Size of the Project: *

Expected cost of the project:

Contact Information:

Screening Category:

- *Capacity corresponding to sectoral activity (such as production capacity for manufacturing, mining lease area and production capacity for mineral production, area for mineral exploration, length for linear transport infrastructure, generation capacity for power generation etc.,)*

(II) Activity

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)		
1.2	Clearance of existing land, vegetation and buildings?		
1.3	Creation of new land uses?		
1.4	Pre-construction investigations e.g. bore houses, soil testing?		
1.5	Construction works?		
1.6	Demolition works?		
1.7	Temporary sites used for construction works or housing of construction workers?		
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations		
1.9	Underground works including mining or tunneling?		
1.10	Reclamation works?		
1.11	Dredging?		
1.12	Offshore structures?		
1.13	Production and manufacturing processes?		

1.14	Facilities for storage of goods or materials?		
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?		
1.16	Facilities for long term housing of operational workers?		
1.17	New road, rail or sea traffic during construction or operation?		
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?		
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?		
1.20	New or diverted transmission lines or pipelines?		
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?		
1.22	Stream crossings?		
1.23	Abstraction or transfers of water form ground or surface waters?		
1.24	Changes in water bodies or the land surface affecting drainage or run-off?		
1.25	Transport of personnel or materials for construction, operation or decommissioning?		
1.26	Long-term dismantling or decommissioning or restoration works?		
1.27	Ongoing activity during decommissioning which could have an impact on the environment?		
1.28	Influx of people to an area in either temporarily or permanently?		
1.29	Introduction of alien species?		
1.30	Loss of native species or genetic diversity?		
1.31	Any other actions?		

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

S.No.	Information/checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)		

2.2	Water (expected source & competing users) unit: KLD		
2.3	Minerals (MT)		
2.4	Construction material – stone, aggregates, and / soil (expected source – MT)		
2.5	Forests and timber (source – MT)		
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)		
2.7	Any other natural resources (use appropriate standard units)		

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)		
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)		
3.3	Affect the welfare of people e.g. by changing living conditions?		
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,		
3.5	Any other causes		

4. Production of solid wastes during construction or operation or decommissioning (MT/month)

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes		

4.2	Municipal waste (domestic and or commercial wastes)		
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)		
4.4	Other industrial process wastes		
4.5	Surplus product		
4.6	Sewage sludge or other sludge from effluent treatment		
4.7	Construction or demolition wastes		
4.8	Redundant machinery or equipment		
4.9	Contaminated soils or other materials		
4.10	Agricultural wastes		
4.11	Other solid wastes		

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources		
5.2	Emissions from production processes		
5.3	Emissions from materials handling including storage or transport		
5.4	Emissions from construction activities including plant and equipment		
5.5	Dust or odours from handling of materials including construction materials, sewage and waste		

5.6	Emissions from incineration of waste		
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)		
5.8	Emissions from any other sources		

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers		
6.2	From industrial or similar processes		
6.3	From construction or demolition		
6.4	From blasting or piling		
6.5	From construction or operational traffic		
6.6	From lighting or cooling systems		
6.7	From any other sources		

7. **Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:**

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials		
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)		
7.3	By deposition of pollutants emitted to air into the land or into water		
7.4	From any other sources		
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?		

8. **Risk of accidents during construction or operation of the Project, which could affect human health or the environment**

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances		
8.2	From any other causes		
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?		

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting. lities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • housing development • extractive industries • supply industries • other		
9.2	Lead to after-use of the site, which could havean impact on the environment		
9.3	Set a precedent for later developments		
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects		

(III) Environmental Sensitivity

S.No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value		

2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests		
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration		
4	Inland, coastal, marine or underground waters		
5	State, National boundaries		
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas		
7	Defence installations		
8	Densely populated or built-up area		
9	Areas occupied by sensitive man-made land uses *(hospitals, schools, places of worship, community facilities)*		
10	Areas containing important, high quality or scarce resources *(ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)*		
11	Areas already subjected to pollution or environmental damage. *(those where existing legal environmental standards are exceeded)*		
12	Areas susceptible to natural hazard which could cause the project to present environmental problems *(earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)*		

(IV). Proposed Terms of Reference for EIA studies

APPENDIX II

(See paragraph 6)

FORM-1 A (only for construction projects listed under item 8 of the Schedule)

CHECK LIST OF ENVIRONMENTAL IMPACTS

(Project proponents are required to provide full information and wherever necessary attach explanatory notes with the Form and submit along with proposed environmental management plan & monitoring programme)

1. LAND ENVIRONMENT

(Attach panoramic view of the project site and the vicinity)

1.1. Will the existing landuse get significantly altered from the project that is not consistent with the surroundings? (Proposed landuse must conform to the approved Master Plan / Development Plan of the area. Change of landuse if any and the statutory approval from the competent authority be submitted). Attach Maps of (i) site location, (ii) surrounding features of the proposed site (within 500 meters) and (iii)the site (indicating levels & contours) to appropriate scales. If not available attach only conceptual plans.

1.2. List out all the major project requirements in terms of the land area, built up area, water consumption, power requirement, connectivity, community facilities, parking needs etc.

1.3. What are the likely impacts of the proposed activity on the existing facilities adjacent to the proposed site? (Such as open spaces, community facilities, details of the existing landuse, disturbance to the local ecology).

1.4. Will there be any significant land disturbance resulting in erosion, subsidence & instability? (Details of soil type, slope analysis, vulnerability to subsidence, seismicity etc may be given).

1.5. Will the proposal involve alteration of natural drainage systems? (Give details on a contour map showing the natural drainage near the proposed project site)

1.6. What are the quantities of earthwork involved in the construction activity-cutting, filling, reclamation etc. (Give details of the quantities of earthwork involved, transport of fill materials from outside the site etc.)

1.7. Give details regarding water supply, waste handling etc during the construction period.

1.8. Will the low lying areas & wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)

1.9. Whether construction debris & waste during construction cause health hazard? (Give quantities of various types of wastes generated during construction including the construction labour and the means of disposal)

2. WATER ENVIRONMENT

2.1. Give the total quantity of water requirement for the proposed project with the breakup of requirements for various uses. How will the water requirement met? State the sources & quantities and furnish a water balance statement.

2.2. What is the capacity (dependable flow or yield) of the proposed source of water?

2.3. What is the quality of water required, in case, the supply is not from a municipal source? (Provide physical, chemical, biological characteristics with class of water quality)

2.4. How much of the water requirement can be met from the recycling of treated wastewater? (Give the details of quantities, sources and usage)

2.5. Will there be diversion of water from other users? (Please assess the impacts of the project on other existing uses and quantities of consumption)

2.6. What is the incremental pollution load from wastewater generated from the proposed activity? (Give details of the quantities and composition of wastewater generated from the proposed activity)

2.7. Give details of the water requirements met from water harvesting? Furnish details of the fadilities created.

2.8. What would be the impact of the land use changes occurring due to the proposed project on the runoff characteristics (quantitative as well as qualitative) of the area in the post construction phase on a long term basis? Would it aggravate the problems of flooding or water logging in any way?

2.9. What are the impacts of the proposal on the ground water? (Will there be tapping of ground water; give the details of ground water table, recharging capacity, and approvals obtained from competent authority, if any)

2.10. What precautions/measures are taken to prevent the run-off from construction activities polluting land & aquifers? (Give details of quantities and the measures taken to avoid the adverse impacts)

2.11. How is the storm water from within the site managed?(State the provisions made to avoid flooding of the area, details of the drainage facilities provided along with a site layout indication contour levels)

2.12. Will the deployment of construction labourers particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation)

2.13. What on-site facilities are provided for the collection, treatment & safe disposal of sewage? (Give details of the quantities of wastewater generation, treatment capacities with technology & facilities for recycling and disposal)

2.14. Give details of dual plumbing system if treated waste used is used for flushing of toilets or any other use.

3. VEGETATION

3.1. Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with it's unique features, if any)

3.2. Will the construction involve extensive clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)

3.3. What are the measures proposed to be taken to minimize the likely impacts on important site features (Give details of proposal for tree plantation, landscaping, creation of water bodies etc along with a layout plan to an appropriate scale)

4. FAUNA

4.1. Is there likely to be any displacement of fauna- both terrestrial and aquatic or creation of barriers for their movement? Provide the details.

4.2. Any direct or indirect impacts on the avifauna of the area? Provide details.

4.3. Prescribe measures such as corridors, fish ladders etc to mitigate adverse impacts on fauna

5. AIR ENVIRONMENT

5.1. Will the project increase atmospheric concentration of gases & result in heat islands? (Give details of background air quality levels with predicted values based on dispersion models taking into account the increased traffic generation as a result of the proposed constructions)

5.2. What are the impacts on generation of dust, smoke, odorous fumes or other hazardous gases? Give details in relation to all the meteorological parameters.

5.3. Will the proposal create shortage of parking space for vehicles? Furnish details of the present level of transport infrastructure and measures proposed for improvement including the traffic management at the entry & exit to the project site.

5.4. Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths etc., with areas under each category.

5.5. Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.

5.6. What will be the impact of DG sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.

6. AESTHETICS

6.1. Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into account by the proponents?

6.2. Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?

6.3. Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.

6.4. Are there any anthropological or archaeological sites or artefacts nearby? State if any other significant features in the vicinity of the proposed site have been considered.

7. SOCIO-ECONOMIC ASPECTS

7.1. Will the proposal result in any changes to the demographic structure of local population? Provide the details.

7.2. Give details of the existing social infrastructure around the proposed project.

7.3. Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?

8. BUILDING MATERIALS

8.1. May involve the use of building materials with high-embodied energy. Are the construction materials produced with energy efficient processes? (Give details of energy conservation measures in the selection of building materials and their energy efficiency)

8.2. Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?

8.3. Are recycled materials used in roads and structures? State the extent of savings achieved?

8.4. Give details of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project.

9. ENERGY CONSERVATION

9.1, Give details of the power requirements, source of supply, backup source etc. What is the energy consumption assumed per square foot of built-up area? How have you tried to minimize energy consumption?

9.2. What type of, and capacity of, power back-up to you plan to provide?

9.3. What are the characteristics of the glass you plan to use? Provide specifications of its characteristics related to both short wave and long wave radiation?

9.4. What passive solar architectural features are being used in the building? Illustrate the applications made in the proposed project.

9.5. Does the layout of streets & buildings maximise the potential for solar energy devices? Have you considered the use of street lighting, emergency lighting and solar hot water systems for use in the building complex? Substantiate with details.

9.6. Is shading effectively used to reduce cooling/heating loads? What principles have been used to maximize the shading of Walls on the East and the West and the Roof? How much energy saving has been effected?

9.7. Do the structures use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details. Provide details of the transformers and motor efficiencies, lighting intensity and air-conditioning load assumptions? Are you using CFC and HCFC free chillers? Provide specifications.

9.8. What are the likely effects of the building activity in altering the micro-climates? Provide a self assessment on the likely impacts of the proposed construction on creation of heat island & inversion effects?

9.9. What are the thermal characteristics of the building envelope? (a) roof; (b) external walls; and (c) fenestration? Give details of the material used and the U-values or the R values of the individual components.

9.10. What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans.

9.11. If you are using glass as wall material provides details and specifications including emissivity and thermal characteristics.

9.12. What is the rate of air infiltration into the building? Provide details of how you are mitigating the effects of infiltration.

9.13. To what extent the non-conventional energy technologies are utilised in the overall energy consumption? Provide details of the renewable energy technologies used.

10. Environment Management Plan

The Environment Management Plan would consist of all mitigation measures for each item wise activity to be undertaken during the construction, operation and the entire life cycle to minimize adverse environmental impacts as a result of the activities of the project. It would also delineate the environmental monitoring plan for compliance of various environmental regulations. It will state the steps to be taken in case of emergency such as accidents at the site including fire.

APPENDIX III

(See paragraph 7

GENERIC STRUCTURE OF ENVIRONMENTAL IMPACT ASSESSENT DOCUMENT

S.NO	EIA STRUCTURE	CONTENTS
1.	Introduction	• Purpose of the report • Identification of project & project proponent • Brief description of nature, size, location of the project and its importance to the country, region • Scope of the study – details of regulatory scoping carried out (As per Terms of Reference)
2.	Project Description	• Condensed description of those aspects of the project (based on project feasibility study), likely to cause environmental effects. Details should be provided to give clear picture of the following: • Type of project • Need for the project • Location (maps showing general location, specific location, project boundary & project site layout)

		• Size or magnitude of operation (incl. Associated activities required by or for the project • Proposed schedule for approval and implementation • Technology and process description • Project description. Including drawings showing project layout, components of project etc. Schematic representations of the feasibility drawings which give information important for EIA purpose • Description of mitigation measures incorporated into the project to meet environmental standards, environmental operating conditions, or other EIA requirements (as required by the scope) • Assessment of New & untested technology for the risk of technological failure
3.	Description of the Environment	• Study area, period, components & methodology • Establishment of baseline for valued environmental components, as identified in the scope • Base maps of all environmental components
4.	Anticipated Environmental Impacts & Mitigation Measures	• Details of Investigated Environmental impacts due to project location, possible accidents, project design, project construction, regular operations, final decommissioning or rehabilitation of a completed project • Measures for minimizing and / or offsetting adverse impacts identified • Irreversible and Irretrievable commitments of environmental components • Assessment of significance of impacts (Criteria for determining significance, Assigning significance) • Mitigation measures
5.	Analysis of Alternatives (Technology & Site)	• In case, the scoping exercise results in need for alternatives: • Description of each alternative • Summary of adverse impacts of each alternative • Mitigation measures proposed for each alternative and • Selection of alternative

6.	Environmental Monitoring Program	• Technical aspects of monitoring the effectiveness of mitigation measures (incl. Measurement methodologies, frequency, location, data analysis, reporting schedules, emergency procedures, detailed budget & procurement schedules)
7.	Additional Studies	• Public Consultation • Risk assessment • Social Impact Assessment. R&R Action Plans
8.	Project Benefits	• Improvements in the physical infrastructure • Improvements in the social infrastructure • Employment potential –skilled; semi-skilled and unskilled • Other tangible benefits
9.	Environmental Cost Benefit Analysis	If recommended at the Scoping stage
10.	EMP	• Description of the administrative aspects of ensuring that mitigative measures are implemented and their effectiveness monitored, after approval of the EIA
11	Summary & Conclusion (This will constitute the summary of the EIA Report)	• Overall justification for implementation of the project • Explanation of how, adverse effects have been mitigated
12.	Disclosure of Consultants engaged	• The names of the Consultants engaged with their brief resume and nature of Consultancy rendered

APPENDIX III A
(See paragraph 7)

CONTENTS OF SUMMARY ENVIRONMENTAL IMPACT ASSESSMENT

The Summary EIA shall be a summary of the full EIA Report condensed to ten A-4 size pages at the maximum. It should necessarily cover in brief the following Chapters of the full EIA Report: -

1. Project Description
2. Description of the Environment
3. Anticipated Environmental impacts and mitigation measures
4. Environmental Monitoring Programme
5. Additional Studies
6. Project Benefits
7. Environment Management Plan

APPENDIX IV

(See paragraph 7)

PROCEDURE FOR CONDUCT OF PUBLIC HEARING

1.0 The Public Hearing shall be arranged in a systematic, time bound and transparent manner ensuring widest possible public participation at the project site(s) or in its close proximity District -wise, by the concerned State Pollution Control Board (SPCB) or the Union Territory Pollution Control Committee (UTPCC).

2. 0 **The Process:**

2.1 The Applicant shall make a request through a simple letter to the Member Secretary of the SPCB or Union Territory Pollution Control Committee, in whose jurisdiction the project is located, to arrange the public hearing within the prescribed statutory period. In case the project site is extending beyond a State or Union Territory, the public hearing is mandated in each State or Union Territory in which the project is sited and the Applicant shall make separate requests to each concerned SPCB or UTPCC for holding the public hearing as per this procedure.

2.2 The Applicant shall enclose with the letter of request, at least 10 hard copies and an equivalent number of soft (electronic) copies of the draft EIA Report with the generic structure given in Appendix III including the Summary Environment Impact Assessment report in English and in the local language, prepared strictly in accordance with the Terms of Reference communicated after Scoping (Stage-2). Simultaneously the applicant shall arrange to forward copies, one hard and one soft, of the above draft EIA Report along with the Summary EIA report to the Ministry of Environment and Forests and to the following authorities or offices, within whose jurisdiction the project will be located:

(a) District Magistrate/s
(b) Zila Parishad or Municipal Corporation
(c) District Industries Office
(d) Concerned Regional Office of the Ministry of Environment and Forests

2.3 On receiving the draft Environmental Impact Assessment report, the above-mentioned authorities except the MoEF, shall arrange to widely publicize it within their respective jurisdictions requesting the interested persons to send their comments to the concerned regulatory authorities. They shall also make available the draft EIA Report for inspection electronically or otherwise to the public during normal office hours till the Public Hearing is over. The Ministry of Environment and Forests shall promptly display the Summary of the draft Environmental Impact Assessment report on its website, and also make the full draft EIA available for reference at a notified place during normal office hours in the Ministry at Delhi.

2.4 The SPCB or UTPCC concerned shall also make similar arrangements for giving publicity about the project within the State/Union Territory and make available the Summary of the draft Environmental Impact Assessment report (Appendix III A) for inspection in select offices or public libraries or panchayats etc. They shall also additionally

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make available a copy of the draft Environmental Impact Assessment report to the above five authorities/offices viz, Ministry of Environment and Forests, District Magistrate etc.

3.0 Notice of Public Hearing:

3.1 The Member-Secretary of the concerned SPCB or UTPCC shall finalize the date, time and exact venue for the conduct of public hearing within 7(seven) days of the date of receipt of the draft Environmental Impact Assessment report from the project proponent, and advertise the same in one major National Daily and one Regional vernacular Daily. A minimum notice period of 30(thirty) days shall be provided to the public for furnishing their responses;

3.2 The advertisement shall also inform the public about the places or offices where the public could access the draft Environmental Impact Assessment report and the Summary Environmental Impact Assessment report before the public hearing.

3.3 No postponement of the date, time, venue of the public hearing shall be undertaken, unless some untoward emergency situation occurs and only on the recommendation of the concerned District Magistrate the postponement shall be notified to the public through the same National and Regional vernacular dailies and also prominently displayed at all the identified offices by the concerned SPCB or Union Territory Pollution Control Committee;

3.4 In the above exceptional circumstances fresh date, time and venue for the public consultation shall be decided by the Member –Secretary of the concerned SPCB or UTPCC only in consultation with the District Magistrate and notified afresh as per procedure under 3.1 above.

4.0 The Panel

4.1 The District Magistrate or his or her representative not below the rank of an Additional District Magistrate assisted by a representative of SPCB or UTPCC, shall supervise and preside over the entire public hearing process.

5.0 Videography

5.1 The SPCB or UTPCC shall arrange to video film the entire proceedings. A copy of the videotape or a CD shall be enclosed with the public hearing proceedings while forwarding it to the Regulatory Authority concerned.

6.0 Proceedings

6.1 The attendance of all those who are present at the venue shall be noted and annexed with the final proceedings.

6.2 There shall be no quorum required for attendance for starting the proceedings.

6.3 A representative of the applicant shall initiate the proceedings with a presentation on the project and the Summary EIA report.

6.4 Every person present at the venue shall be granted the opportunity to seek information or clarifications on the project from the Applicant. The summary of the public

hearing proceedings accurately reflecting all the views and concerns expressed shall be recorded by the representative of the SPCB or UTPCC and read over to the audience at the end of the proceedings explaining the contents in the vernacular language and the agreed minutes shall be signed by the District Magistrate or his or her representative on the same day and forwarded to the SPCB/UTPCC concerned.

6.5 A Statement of the issues raised by the public and the comments of the Applicant shall also be prepared in the local language and in English and annexed to the proceedings.

6.6 The proceedings of the public hearing shall be conspicuously displayed at the office of the Panchyats within whose jurisdiction the project is located, office of the concerned Zila Parishad, District Magistrate ,and the SPCB or UTPCC . The SPCB or UTPCC shall also display the proceedings on its website for general information. Comments, if any, on the proceedings which may be sent directly to the concerned regulatory authorities and the Applicant concerned.

7.0 **Time period for completion of public hearing**

7.1 The public hearing shall be completed within a period of 45 (forty five) days from date of receipt of the request letter from the Applicant. Therefore the SPCB or UTPCC concerned shall sent the public hearing proceedings to the concerned regulatory authority within 8(eight) days of the completion of the public hearing .The applicant may also directly forward a copy of the approved public hearing proceedings to the regulatory authority concerned along with the final Environmental Impact Assessment report or supplementary report to the draft EIA report prepared after the public hearing and public consultations.

7.2 If the SPCB or UTPCC fails to hold the public hearing within the stipulated 45(forty five) days, the Central Government in Ministry of Environment and Forests for Category 'A' project or activity and the State Government or Union Territory Administration for Category 'B' project or activity at the request of the SEIAA, shall engage any other agency or authority to complete the process, as per procedure laid down in this notification.

APPENDIX –V
(See paragraph 7)

PROCEDURE PRESCRIBED FOR APPRAISAL

1. The applicant shall apply to the concerned regulatory authority through a simple communication enclosing the following documents where public consultations are mandatory: -

- Final Environment Impact Assessment Report [20(twenty) hard copies and 1 (one) soft copy)]
- A copy of the video tape or CD of the public hearing proceedings
- A copy of final layout plan (20 copies)
- A copy of the project feasibility report (1 copy)

2. The Final EIA Report and the other relevant documents submitted by the applicant shall be scrutinized in office within 30 days from the date of its receipt by the concerned Regulatory Authority strictly with reference to the TOR and the inadequacies noted shall be communicated electronically or otherwise in a single set to the Members of the EAC

/SEAC enclosing a copy each of the Final EIA Report including the public hearing proceedings and other public responses received along with a copy of Form -1or Form 1A and scheduled date of the EAC /SEAC meeting for considering the proposal .

3. Where a public consultation is not mandatory and therefore a formal EIA study is not required, the appraisal shall be made on the basis of the prescribed application Form 1 and a pre-feasibility report in the case of all projects and activities other than Item 8 of the Schedule .In the case of Item 8 of the Schedule, considering its unique project cycle , the EAC or SEAC concerned shall appraise all Category B projects or activities on the basis of Form 1, Form 1A and the conceptual plan and stipulate the conditions for environmental clearance . As and when the applicant submits the approved scheme /building plans complying with the stipulated environmental clearance conditions with all other necessary statutory approvals, the EAC /SEAC shall recommend the grant of environmental clearance to the competent authority.

4. Every application shall be placed before the EAC /SEAC and its appraisal completed within 60 days of its receipt with requisite documents / details in the prescribed manner.

5. The applicant shall be informed at least 15 (fifteen) days prior to the scheduled date of the EAC /SEAC meeting for considering the project proposal.

6. The minutes of the EAC /SEAC meeting shall be finalised within 5 working days of the meeting and displayed on the website of the concerned regulatory authority. In case the project or activity is recommended for grant of EC, then the minutes shall clearly list out the specific environmental safeguards and conditions. In case the recommendations are for rejection, the reasons for the same shall also be explicitly stated.

APPENDIX VI

(See paragraph 5)

COMPOSITION OF THE SECTOR/ PROJECT SPECIFIC EXPERT APPRAISAL COMMITTEE (EAC) FOR CATEGORY A PROJECTS AND THE STATE/UT LEVEL EXPERT APPRAISAL COMMITTEES (SEACs) FOR CATEGORY B PROJECTS TO BE CONSTITUTED BY THE CENTRAL GOVERNMENT

1. The Expert Appraisal Committees (EAC(s) and the State/UT Level Expert Appraisal Committees (SEACs) shall consist of only professionals and experts fulfilling the following eligibility criteria:

Professional: The person should have at least (i) 5 years of formal University training in the concerned discipline leading to a MA/MSc Degree, or (ii) in case of Engineering /Technology/Architecture disciplines, 4 years formal training in a professional training course together with prescribed practical training in the field leading to a B.Tech/B.E./B.Arch. Degree, or (iii) Other professional degree (e.g. Law) involving a total of 5 years of formal University training and prescribed practical training, or (iv) Prescribed apprenticeship/article ship and pass examinations conducted by the concerned professional association (e.g. Chartered Accountancy),or (v) a University degree , followed by 2 years of formal training in a University or Service Academy (e.g. MBA/IAS/IFS). In selecting the individual professionals, experience gained by them in their respective fields will be taken note of.

Expert: A professional fulfilling the above eligibility criteria with at least 15 years of relevant experience in the field, or with an advanced degree (e.g. Ph.D.) in a concerned field and at least 10 years of relevant experience.

Age: Below 70 years. However, in the event of the non-availability of /paucity of experts in a given field, the maximum age of a member of the Expert Appraisal Committee may be allowed up to 75 years

2. The Members of the EAC shall be Experts with the requisite expertise and experience in the following fields /disciplines. In the event that persons fulfilling the criteria of "Experts" are not available, Professionals in the same field with sufficient experience may be considered:

- **Environment Quality Experts**: Experts in measurement/monitoring, analysis and interpretation of data in relation to environmental quality

- **Sectoral Experts in Project Management**: Experts in Project Management or Management of Process/Operations/Facilities in the relevant sectors.

- **Environmental Impact Assessment Process Experts**: Experts in conducting and carrying out Environmental Impact Assessments (EIAs) and preparation of Environmental Management Plans (EMPs) and other Management plans and who have wide expertise and knowledge of predictive techniques and tools used in the EIA process

- **Risk Assessment Experts**

- **Life Science Experts in floral and faunal management**

- **Forestry and Wildlife Experts**

- **Environmental Economics Expert with experience in project appraisal**

3. The Membership of the EAC shall not exceed 15 (fifteen) regular Members. However the Chairperson may co-opt an expert as a Member in a relevant field for a particular meeting of the Committee.

4. The Chairperson shall be an outstanding and experienced environmental policy expert or expert in management or public administration with wide experience in the relevant development sector.

5. The Chairperson shall nominate one of the Members as the Vice Chairperson who shall preside over the EAC in the absence of the Chairman /Chairperson.

6. A representative of the Ministry of Environment and Forests shall assist the Committee as its Secretary.

7. The maximum tenure of a Member, including Chairperson, shall be for 2 (two) terms of 3 (three) years each.

8. The Chairman / Members may not be removed prior to expiry of the tenure without cause and proper enquiry.

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अधिसूचना

नई दिल्ली, 17 फरवरी, 2020

का.आ. 751(अ).—केंद्रीय सरकार, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (1) और उपधारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, तत्कालीन पर्यावरण और वन मंत्रालय में परियोजनाओं के कतिपय प्रवर्गों के लिए पूर्व पर्यावरण अनापत्ति आज्ञापक बनाते हुए का.आ. 1533(अ) तारीख 14 सितंबर, 2006 के द्वारा पर्यावरणीय समाधात निर्धारण अधिसूचना, 2006 (जिसे इसमें इसके पश्चात् ईआईए अधिसूचना, 2006 कहा गया है) प्रकाशित किया है ;

और, पूर्व पर्यावरणीय अनापत्ति प्रक्रिया, जिसमें चार चरण अंतर्वलित हैं, अर्थात् छटनी करना, विस्तारण, लोक राय और अंकन । विस्तारण, परियोजना या क्रियाकलाप के लिए, जिसे पूर्व पर्यावरणीय अनापत्ति कहा गया है, के संबंध में पर्यावरणीय समाघात निर्धारण और पर्यावरणीय प्रबंध रिपोर्ट को तैयार करने के लिए संबंधी इंगित सभी सुसंगत पर्यावरणीय ब्यौरे और व्यापक विचारार्थ विषयों को (जिसे इसमें इसके पश्चात् टीओआर कहा गया है) विनिश्चित करने की प्रक्रिया है ;

और, विस्तारण की प्रक्रिया को सहज बनाने और एक मानक प्रचालन प्रक्रिया के रूप में प्रस्तावों में एकरूपता लाने के उद्देश्य से मंत्रालय ने ईआईए अधिसूचना, 2006 की अनुसूची में सूचीबद्ध सभी 39 परियोजनाओं/कार्यकलापों के लिए क्षेत्र विशिष्ट मानक विचारार्थ विषय तैयार किए हैं ;

और, ईआईए अधिसूचना, 2006 के उपबंधों के अधीन गठित विशेषज्ञ मूल्यांकन समिति मानक टीओआर को उपांतरित कर सकती है और प्रस्तावित वैकल्पिक स्थल और हरित स्थल परियोजनाओं और क्रियाकलापों के संबंध में विशिष्ट अपेक्षा परियोजनाओं की परीक्षा के आधार पर अतिरिक्त टीओआर को विहित कर सकती है ;

और, विस्तारित प्रस्तावों और अधिसूचित औद्योगिक संपदा के भीतर स्थित परियोजना के संबंध में, जिसमें वैकल्पिक स्थलों की जांच अंतर्वलित नहीं है, मानक विचारार्थ विषयों को प्राप्त करने की प्रदान करने की प्रक्रिया को समीचीन करने के लिए, मंत्रालय विनियामक प्राधिकारी द्वारा प्ररूप 1 में प्रस्ताव को स्वीकार करने के पश्चात् एक आनलाइन मानक विचारार्थ

विषय के प्रचालन के विचार को शुरू करने का प्रस्ताव करता है, जिसे परियोजना प्रस्तावक को मंत्रालय द्वारा विकसित वेब पोर्टल के माध्यम से स्वत: जारी किया जाएगा ;

और, प्रारूप अधिसूचना ईआईए अधिसूचना, 2006 का और संशोधन करने के लिए, का.आ. सं. 4085(अ), तारीख 11 नवंबर, 2019 द्वारा पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (1) और उपधारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए प्रकाशित की गई थी, जिसमें उन सभी व्यक्तियों से जिनके उससे प्रभावित होने की संभावना है, उस तारीख से, जिसको उक्त अधिसूचना वाले राजपत्र की प्रतियां जनता को उपलब्ध करा दी जाती हैं, से साठ दिन की अवधि के भीतर आक्षेप और सुझाव आमंत्रित किए गए थे ;

और, उक्त अधिसूचना की प्रतियां 13 नवंबर, 2019 को जनता को उपलब्ध करा दी गई थीं ;

और, कोई आक्षेप या सुझाव उपर्युक्त उल्लिखित प्रारूप अधिसूचना के उत्तर में प्राप्त नहीं किए गए थे ;

अत:, अब, केंद्रीय सरकार, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (1) और उपधारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, ईआईए अधिसूचना, 2006 में निम्नलिखित और संशोधन करती है, अर्थात् :--

उक्त अधिसूचना में, पैरा 7 के उप पैरा 7(i) में उपशीर्ष II चरण (2)-विस्तारण और उससे संबंधित प्रविष्टियों के स्थान पर निम्नलिखित को रखा जाएगा, अर्थात् :--

"II. चरण (2)-विस्तारण :

(i) "विस्तारण" का अर्थ परियोजना अथवा कार्यकलाप, जिसके लिए पर्यावरणीय पूर्वानुमति मांगी जाती है, के संबंध में पर्यावरणीय समाघात निर्धारण/पर्यावरण प्रबंधन रिपोर्ट को तैयार करने के लिए सभी संबंधित पर्यावरणीय सरोकारों का समाधान करने वाले विस्तृत और व्यापक विचारार्थ विषय का निर्धारण करने की प्रक्रिया है ।

(ii) अनुसूची की श्रेणी "ख2" के अंतर्गत सूचीबद्ध सभी परियोजनाओं अथवा कार्यकलापों के लिए विस्तारण अपेक्षित नहीं होगा ।

(iii) पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय द्वारा समय-समय पर विकसित क्षेत्र विशिष्ट मानक विचारार्थ विषयों को इसकी वेबसाइट पर प्रदर्शित किया जाएगा ;

(iv) आवेदन की स्वीकृति पर सात कार्य दिवस के अंदर, मानक विचारार्थ विषय मंत्रालय द्वारा ईएसी/एसईएसी, जैसा भी मामला हो, को संदर्भित किए बिना निम्नलिखित परियोजनाओं अथवा कार्यकलापों के लिए ऑनलाइन रीति के माध्यम से जारी होंगे:

(क) अनुसूची की मद 7(च) के सामने कॉलम (3) और (4) की प्रविष्टि (i) और (ii) के अंतर्गत शामिल सीमावर्ती राज्यों में सभी राजमार्ग परियोजनाएं ;

(ख) संबंधित प्राधिकरणों द्वारा अनुमोदित औद्योगिक संपदाओं अथवा उद्यानों (अनुसूची की मद 7(ग)) में स्थित प्रस्तावित सभी परियोजनाएं अथवा कार्यकलाप और जिनके लिए ऐसे अनुमोदनों की अनुमति नहीं है ;

(ग) विद्यमान परियोजनाओं के विस्तार के सभी प्रस्ताव, जिन्हें पूर्व में पर्यावरणीय अनापत्ति प्राप्त हो ।

परंतु यह कि ईएसी या एसईएसी आवेदन की स्वीकृति से 30 दिनों के अंदर परियोजना या कार्यकलाप के लिए मानक टीओआर के अतिरिक्त, यदि आवश्यक हो तो विशिष्ट विचारार्थ विषय की सिफारिश कर सकती है ।

(v) मानक टीओआर के अतिरिक्त, विशिष्ट विचारार्थ विषय की सिफारिश करने के लिए, यदि आवश्यक समझा जाए तो आवेदन की तारीख से 30 दिनों के अंदर उपर्युक्त उप-पैराग्राफ (4) में विनिर्दिष्ट के अलावा सभी नई परियोजनाएं और कार्यकलाप विनियामक प्राधिकारी द्वारा ईएसी या एसईएसी को, जैसा भी मामला हो संदर्भित किए जाएंगे । यदि विनियामक प्राधिकरण द्वारा प्रपत्र-1 में आवेदन की तारीख से 30 दिनों के अंदर ईएसी/एसईएसी को संदर्भित नहीं किया जाता है तो विनियामक प्राधिकरण द्वारा 30 दिनों के अंदर क्षेत्र विशिष्ट मानक टीओआर को आनलाइन जारी किया जाएगा ।

(vi) विचारार्थ विषय के लिए आवेदनों को संबंधित ईएसी या एसईएसी की सिफारिशों पर संबंधित विनियामक प्राधिकरण द्वारा अस्वीकृत किया जा सकता है । ऐसी अस्वीकृति के मामले में, समुचित व्यक्तिगत सुनवाई के पश्चात् इसके लिए कारणों सहित निर्णय की सूचना आवेदक को आवेदन की प्राप्ति के 60 दिनों के अंदर लिखित में दी जाएगी ।

(vii) परियोजना प्रस्तावक द्वारा क्षेत्र विशिष्ट मानक टीओआर के साथ-साथ ईएसी/एसईएसी द्वारा अनुबंधित अतिरिक्त विशिष्ट टीओआर, यदि कोई हो, के आधार पर ईआईए रिपोर्ट तैयार की जाएगी ।

(viii) संबंधित विनियामक प्राधिकरण द्वारा नदी घाटी और जल विद्युत परियोजनाओं को छोड़कर परियोजनाओं या कार्यकलापों के लिए जारी विचारार्थ विषय की वैधता जारी होने के तारीख से चार वर्षों की होगी । नदी घाटी और जल विद्युत परियोजनाओं की वैधता पांच वर्षों की होगी ।

[फा. सं. 22-1/2019-आईए.III]

गीता मेनन, संयुक्त सचिव

टिप्पण : मूल अधिसूचना का.आ.सं.1533(अ) तारीख 14 सितंबर, 2006 द्वारा भारत के राजपत्र, असाधारण, भाग II, खंड 3, उपखंड (ii) में प्रकाशित की गई थी और तत्पश्चात् निम्नलिखित सं. द्वारा संशोधित की गई :--

1. का.आ. 1949(अ) तारीख 13 नवंबर, 2006 ;
2. का.आ. 1737(अ) तारीख 11 अक्तूबर, 2007 ;
3. का.आ. 3067(अ) तारीख 1 दिसंबर, 2009 ;
4. का.आ. 695(अ) तारीख 4 अप्रैल, 2011 ;
5. का.आ. 156(अ) तारीख 25 जनवरी, 2012 ;
6. का.आ. 2896(अ) तारीख 13 दिसंबर, 2012 ;
7. का.आ. 674(अ) तारीख 13 मार्च, 2013 ;
8. का.आ. 2204(अ) तारीख 19 जुलाई, 2013 ;
9. का.आ. 2555(अ) तारीख 21 अगस्त, 2013 ;
10. का.आ. 2559(अ) तारीख 22 अगस्त, 2013 ;
11. का.आ. 2731(अ) तारीख 09 सितंबर, 2013 ;
12. का.आ. 562(अ) तारीख 26 फरवरी, 2014 ;
13. का.आ. 637(अ) तारीख 28 फरवरी, 2014 ;
14. का.आ. 1599(अ) तारीख 25 जून, 2014 ;
15. का.आ. 2601(अ) तारीख 07 अक्तूबर, 2014 ;
16. का.आ. 2600(अ) तारीख 09 अक्तूबर, 2014 ;
17. का.आ. 3252(अ) तारीख 22 दिसंबर, 2014 ;
18. का.आ. 382(अ) तारीख 3 फरवरी, 2015 ;
19. का.आ. 811(अ) तारीख 23 मार्च, 2015 ;
20. का.आ. 996(अ) तारीख 10 अप्रैल, 2015 ;
21. का.आ. 1142(अ) तारीख 17 अप्रैल, 2015 ;
22. का.आ. 1141(अ) तारीख 29 अप्रैल, 2015 ;
23. का.आ. 1834(अ) तारीख 06 जुलाई, 2015 ;
24. का.आ. 2571(अ) तारीख 31 अगस्त, 2015 ;
25. का.आ. 2572(अ) तारीख 14 सितंबर, 2015 ;
26. का.आ. 141(अ) तारीख 15 जनवरी, 2016 ;
27. का.आ. 648(अ) तारीख 03 मार्च, 2016 ;
28. का.आ. 2269(अ) तारीख 01 जुलाई, 2016 ;
29. का.आ. 2944(अ) तारीख 14 सितंबर, 2016 ;
30. का.आ. 3518(अ) तारीख 23 नवंबर, 2016 ;
31. का.आ. 3999(अ) तारीख 09 दिसंबर, 2016 ;
32. का.आ. 4241(अ) तारीख 30 दिसंबर, 2016 ;
33. का.आ. 3611(अ) तारीख 25 जुलाई, 2018 ;
34. का.आ. 3977(अ) तारीख 14 अगस्त, 2018 ;
35. का.आ. 5733(अ) तारीख 14 नवंबर, 2018 ;

36. का.आ. 5736(अ) तारीख 15 नवंबर, 2018 ;
37. का.आ. 5845(अ) तारीख 26 नवंबर, 2018 ;
38. का.आ. 345(अ) तारीख 17 जनवरी, 2019 ;
39. का.आ. 1960(अ) तारीख 13 जून, 2019 ; और
40. का.आ. 236(अ) तारीख 16 जनवरी, 2020 ।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 17th February, 2020

S.O. 751(E).—WHEREAS, the Central Government in the erstwhile Ministry of Environment and Forests, in exercise of its powers under sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 has published the Environment Impact Assessment Notification, 2006 (hereinafter referred to as the EIA Notification, 2006) *vide* number S.O.1533 (E), dated the 14th September, 2006, mandating Prior Environmental Clearance for certain category of projects;

AND WHEREAS, the Prior Environmental Clearance process involves four stages namely, screening; scoping; public consultation; and appraisal. The scoping is the process to determine detailed and comprehensive Terms of Reference (hereinafter referred to as ToR) addressing all relevant environmental concerns for the preparation of an Environmental Impact Assessment and Environment Management Report in respect of the project or activity for which Prior Environmental Clearance is sought;

AND WHEREAS, in order to streamline the process of scoping and bring the uniformity across the proposals, as a standard operating procedure, the Ministry has developed sector specific Standard Terms of References for all 39 class of projects or activities listed in the Schedule to the EIA Notification, 2006;

AND WHEREAS, the Expert Appraisal Committee constituted under the provisions of EIA Notification, 2006 can modify standard ToR and prescribe additional ToR based on examination of alternative sites proposed and the project specific requirements in respect of green field projects or activities;

AND WHEREAS, to expedite the process of granting standard Terms of Reference (ToR) in respect of expansion proposals and projects located within notified Industrial Estates, where there is no examination of alternative sites involved, the Ministry proposes to introduce the concept of issuance of an online Standard Terms of Reference (ToR) after acceptance of the proposal in Form-1 by the Regulatory Authority, automatically through the web portal developed by the Ministry to the Project Proponent;

AND WHEREAS, a draft notification further to amend the EIA Notification, 2006 was published in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986), read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 *vide* number S.O. 4085 (E), dated the 11th November, 2019, inviting objections and suggestions from all persons likely to be affected thereby, within a period of sixty days from the date on which copies of Gazette containing the said notification were made available to the public;

AND WHEREAS, copies of the said notification were made available to the public on 13th November, 2019;

AND WHEREAS, no objections or suggestions were received in response to the above-mentioned draft notification;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986), read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following further amendments in the EIA Notification, 2006, namely:-

In the said notification, in paragraph 7, in sub-paragraph 7(i), for sub-heading II Stage (2)-Scoping and entries relating thereto, the following shall be substituted, namely:-

"II. Stage (2)-Scoping:

(i) "Scoping" refers to the process to determine detailed and comprehensive Terms of Reference (ToR) addressing all relevant environmental concerns for the preparation of an Environmental Impact Assessment and Environment Management Report in respect of the project or activity for which Prior Environmental Clearance is sought.

(ii) All projects or activities listed under Category "B2" of the schedule shall not require Scoping.

(iii) Sector specific Standard Terms of References developed by the Ministry of Environment, Forest and Climate Change, from time to time shall be displayed on its website.

(iv) The Standard Terms of References shall be issued to the following projects or activities through online mode, on acceptance of application within 7 working days, without referring to EAC or SEAC by the Ministry or SEIAA, as the case may be:

(a) All Highway projects in Border States covered under entry (i) and (ii) of column (3) and (4) against item 7(f) of the Schedule;

(b) All projects or activities proposed to be located in industrial estates or parks (item 7(c) of the Schedule) approved by the concerned authorities, and which are not disallowed in such approvals; and

(c) All expansion proposals of existing projects having earlier Prior Environmental Clearance:

Provided that EAC or SEAC may recommend additional specific Terms of Reference in addition to the Standard ToR, if found necessary, for a project or activity, within 30 days from the date of acceptance of application.

(v) All new projects or activities other than specified in sub-paragraph (iv) above, shall be referred to the EAC or SEAC by the Regulatory Authority, as the case may be, within 30 days from the date of application, for recommending the specific ToR in addition to the Standard ToR, deemed necessary. In case, the regulatory authority does not refer the matter to the EAC or SEAC, as the case may be, within 30 days of date of application in Form-I, sector specific Standard ToR shall be issued, online, on 30th day, by the Regulatory Authority.

(vi) Applications for Terms of Reference may be rejected by the regulatory authority concerned on the recommendation of the EAC or SEAC concerned. In case of such rejection, the decision together with reasons for the same after due personal hearing shall be communicated to the applicant in writing within sixty days of the receipt of the application.

(vii) The project proponent shall prepare the EIA report based on the sector specific Standard ToR as well as additional specific ToR, if any, stipulated by the EAC or SEAC.

(viii) The Terms of Reference for the projects or activities except for River valley and Hydro-electric projects, issued by the regulatory authority concerned, shall have the validity of four years from the date of issue. In case of the River valley and Hydro-electric projects, the validity will be for five years.

[F. No. 22-1/2019-IA.III]

GEETA MENON, Jt. Secy.

Note : The principal notification was published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii) *vide* number S.O. 1533(E), dated the 14th September, 2006 and subsequently amended *vide* the following numbers: -

1. S.O. 1949 (E) dated the 13th November, 2006;
2. S.O. 1737 (E) dated the 11th October, 2007;
3. S.O. 3067 (E) dated the 1st December, 2009;
4. S.O. 695 (E) dated the 4th April, 2011;

5. S.O. 156 (E) dated the 25th January, 2012;
6. S.O. 2896 (E) dated the 13th December, 2012;
7. S.O. 674 (E) dated the 13th March, 2013;
8. S.O. 2204 (E) dated the 19th July, 2013;
9. S.O. 2555 (E) dated the 21st August, 2013;
10. S.O. 2559 (E) dated the 22nd August, 2013;
11. S.O. 2731 (E) dated the 9th September, 2013;
12. S.O. 562 (E) dated the 26th February, 2014;
13. S.O. 637 (E) dated the 28th February, 2014;
14. S.O. 1599 (E) dated the 25th June, 2014;
15. S.O. 2601 (E) dated the 7th October, 2014;
16. S.O. 2600 (E) dated the 9th October, 2014;
17. S.O. 3252 (E) dated the 22nd December, 2014;
18. S.O. 382 (E) dated the 3rd February, 2015;
19. S.O. 811 (E) dated the 23rd March, 2015;
20. S.O. 996 (E) dated the 10th April, 2015;
21. S.O. 1142 (E) dated the 17th April, 2015;
22. S.O. 1141 (E) dated the 29th April, 2015;
23. S.O. 1834 (E) dated the 6th July, 2015;
24. S.O. 2571 (E) dated the 31st August, 2015;
25. S.O. 2572 (E) dated the 14th September, 2015;
26. S.O. 141 (E) dated the 15th January, 2016;
27. S.O. 648 (E) dated the 3rd March, 2016;
28. S.O. 2269(E) dated the 1st July, 2016;
29. S.O. 2944(E) dated the 14th September, 2016;
30. S.O. 3518 (E) dated 23rd November, 2016;
31. S.O. 3999 (E) dated the 9th December, 2016;
32. S.O. 4241(E) dated the 30th December, 2016;
33. S.O. 3611(E) dated the 25th July, 2018;
34. S.O. 3977 (E) dated the 14th August, 2018;
35. S.O. 5733 (E) dated the 14th November, 2018;
36. S.O. 5736 (E) dated the 15th November, 2018;
37. S.O. 5845(E) dated the 26th November, 2018;
38. S.O. 345(E) dated the 17th January, 2019;
39. S.O. 1960(E) dated the 13th June, 2019; and
40. S.O. 236(E) dated the 16th January, 2020.

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No.IA-J-11011/293/2021-IA-II(I)

Goverment of India

Minister of Enviroment,Forest and Climate Change

Impact Assessment Division

***

Indira Paryavaran Bhavan,
Vayu Wing,3rd Floor,Aliganj,
Jor Bagh Road,New Delhi-110003
10 Aug 2021

To,

M/s GHCL LIMITED
GHCL HOUSE, OPPOSITE PUNJABI HALL, NAVRANGPURA,AHMEDABAD,
Ahmedabad-380009
Gujarat

Tel.No.079-26434100; Email:projectsodaash@gmail.com

Sir/Madam,

This has reference to the proposal submitted in the Ministry of Environment, Forest and Climate Change to prescribe the Terms of Reference (TOR) for undertaking detailed EIA study for the purpose of obtaining Environmental Clearance in accordance with the provisions of the EIA Notification, 2006. For this purpose, the proponent had submitted online information in the prescribed format (Form-1) along with a Pre-feasibility Report. The details of the proposal are given below:

1. Proposal No.:	IA/GJ/IND3/222096/2021
2. Name of the Proposal:	Greenfield Chemical Complex
3. Category of the Proposal:	Industrial Projects - 3
4. Project/Activity applied for:	4(e) Soda ash Industry
5. Date of submission for TOR:	06 Aug 2021

In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed with public consultation as follows:

4(e): STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR SODA ASH PROJECTS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

A. STANDARD TERMS OF REFERENCE

1) Executive Summary

2) Introduction

i. Details of the EIA Consultant including NABET accreditation

ii. Information about the project proponent

iii. Importance and benefits of the project

3) Project Description

i. Cost of project and time of completion.

ii. Products with capacities for the proposed project.

iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.

iv. List of raw materials required and their source along with mode of transportation.

v. Other chemicals and materials required with quantities and storage capacities

vi. Details of Emission, effluents, hazardous waste generation and their management.

vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)

viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided

ix. Hazard identification and details of proposed safety systems.

x. Expansion/modernization proposals:

a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing Iexisting operation of the project from SPCB shall be attached with the EIA-EMP report.

b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification

2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4) Site Details

i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.

ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)

iii. Details w.r.t. option analysis for selection of site

iv. Co-ordinates (lat-long) of all four corners of the site.

v. Google map-Earth downloaded of the project site.

vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.

vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.

viii. Landuse break-up of total land of the project site (identified and acquired), government/ private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)

ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area

x. Geological features and Geo-hydrological status of the study area shall be included.

xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)

xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.

xiii. R&R details in respect of land in line with state Government policy.

5) Forest and wildlife related issues (if applicable):

i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)

ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland *(in case of projects involving forest land more than 40 ha)*

iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.

iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon.

v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.

vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6) Environmental Status

i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.

ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.

iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.

v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.

vi. Ground water monitoring at minimum at 8 locations shall be included.

vii. Noise levels monitoring at 8 locations within the study area.

viii. Soil Characteristic as per CPCB guidelines.

ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.

x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

xi. Socio-economic status of the study area.

7) Impact and Environment Management Plan

i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.

ii. Water Quality modelling - in case of discharge in water body.

iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.

iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.

v. Details of stack emission and action plan for control of emissions to meet standards.

vi. Measures for fugitive emission control

vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.

viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.

ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.

xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.

xii. Action plan for post-project environmental monitoring shall be submitted.

xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8) Occupational health

i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers

ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.

iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,

iv. Annual report of heath status of workers with special reference to Occupational Health and Safety.

9) Corporate Environment Policy

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report.

10) Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

11) Enterprise Social Commitment (ESC)

i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time

bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

12) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

13) 'A tabular chart with index for point wise compliance of above TOR.

B. SPECIFIC TERMS OF REFERENCE FOR EIASTUDIES OF SODA ASH

1. Complete process flowdiag ram describing each unit, its processes and operations, alongwith material and energy inputs and outputs (material and energy balance).

2. Details on requirement of rawmaterials (sea water, lime-stone,coke, ammonia, additives, etc.), its source and storage at the plant.

3. Details of handling ammonia and risk assessment.

4. Details on water balance including water use, quantity of effluentgenerated, recycled and reused and its impact of discharge to receiving water body.

5. 5. Detail so effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/ regulated environmental parameters.

6. Details of CO2 emissions including its quantum per tone of soda ash.

7. Management plan for solid waste generation (fines of lime stone, grits, brine sludge etc.), storage, utilization and disposal modes.

8. In case of coast at plants details on extraction of seawater and effluent disposal, development of solar salt works based on sea water evaporation, etc,.

9. Details on ground water quality and surface water quality of near by waters ounces and other surfaced rains. The parameters of water quality may include Cl-*,Ca2+*, Na+*, SO42-*, NH4+, Suspended solids* etc. (*- Asapplicable)

10. Ambient air quality should include NH3.

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GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)
*****

Dated: 12.2.2024

MINUTES OF THE 74th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON 6th FEBRUARY, 2024

Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003 through Video Conferencing (VC)

Time: 10:30 AM onwards

(i) Opening Remarks by the Chairman

Prof. (Dr.) A.B. Pandit, Chairman welcomed the Committee members and opened the EAC meeting for further deliberations.

(ii) Details of Agenda items by the Member Secretary

The Member Secretary apprised the Committee that proposal of M/s Transworld Furtichem Pvt. Ltd [proposal no. IA/MH/IND3/437576/2023] was considered in the 69th EAC meeting of Industry-3 Sector held during 16-17 November, 2023 through Video Conferencing (VC) and the Committee noted that Dhatav Village is part of ESAs of Western Ghats as per the Draft Notification published vide S.O. 3072(E) dated 6.7.2022 and also desired to obtain views/comments of ESZ division. Accordingly, ESZ Division has provided the comments regarding the applicability of the Western Ghats ESA regulations for the instant industry. As far the applicability of the Western Ghats ESA regulations for the instant industry is concerned it is mentioned that as of now Dhatav village is part of Western Ghats ESA and is listed in draft notification. Therefore, all the provisions [prohibited/regulated activities; as stated in para '3' (1) & (2)], as contained in draft notification on Western Ghats ESA dated 6.7.2022 are applicable to the projects. It may be mentioned that while the draft Western Ghats ESA notification re-published on 06.07.2022 is under finalization, the directions issued by this Ministry vide its O.M No. 1-4/2012-RE(Pt), dated 13.11.2013 and its amendment issued vide O.M No. 1/9/2018-ESZ, dated 03.12.2018 are in force and valid on date. Therefore, the said case can not be considered by the EAC (Industry -3).

The Member Secretary then apprised the Committee about the details of Agenda items to be discussed during this Expert Appraisal Committee (EAC) meeting.

(iii) Confirmation of Minutes of the 73rd EAC Meeting held on 16th-17th January, 2024.

The EAC noted that the final minutes of the above meeting were issued after incorporating the comments offered by the members and approved by the Chairman.

Agenda Items as per Parivesh 1.0 Portal

Agenda No. 74.1

Proposed Expansion of Synthetic Organic Chemicals (API and Intermediates) Manufacturing Unit upto the Production Capacity of 34 MT/Month located at Plot No. B-40, MIDC Paithan, Taluka Paithan, District Aurangabad, Maharashtra by M/s Satellite Pharmaceuticals Pvt. Ltd. - Reconsideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/457131/2023; File No. IA-J-11011/505/2021-IA-II(I)]

1. The proposal is for the environmental clearance for Proposed Expansion of Synthetic Organic Chemical (API and Intermediates) Manufacturing Unit upto the Production Capacity of 34 MT/Month located at Plot No.: B-40, MIDC Paithan, Taluka-Paithan, District Aurangabad, Maharashtra by M/s Satellite Pharmaceuticals Pvt. Ltd.

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry of Schedule of EIA Notification, 2006 (as amended). However, since the proposed project site is at a distance of 2.9. km from ESZ of Jaikwadi Bird Sanctuary, the project attracts the general condition and considered as Category 'A' at Centre.

3. The ToR was issued by Ministry vide letter no. No. IA-J-11011/505/2021-IA-II (I) dated 02.02.2021. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is an **Expansion case. The proposal was placed in 60th EAC meeting on10th August, 2023**, in which EAC deferrred the proposal, now the proposal is placed in the 74th EAC meeting held on 6th February, 2024 wherein the PP along with accredited Consultant, Building Environment (India) Pvt. Ltd [Accreditation number NABET/EIA/2225/RA 0267_Rev 01Valid till 27.05.2025] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that the existing land area is 6,840 m^2 land, no additional land is required for the proposed expansion, no R& R is involved in the Project. The details of products to be manufactured are as follows:

S. NO	Product name	Quantity/Month	Application
Existing			

1	Sodium Chloride	11 MT	Formulation preparation
2	Ammonium Chloride	11 MT	Pharmaceutical preparations
3	Potassium Chloride	11 MT	Medical application, Synthesis of Nucleic acid
Total		**33 MT**	
The existing products will be discontinued			
		Proposed	
1	Benzhydrol	8 MT	Intermediate for Modafinil and Citrazine Hydrochloride.
2	2-Phenyl-1H-Benzimidazole-5-Sulphonic Acid	2 MT	Intermediate for Sunscreen
3	Cinnamyl alcohol	2 MT	Intermediate for Cinnacalsate
4	Diethyl Amine-2-Hydroxy Benzoate	2 MT	API- Analgic Muscular/ joint pain
5	4-Methoxy Phenyl Acetone	10 MT	Food Additive
6	4-Hydroxy Benzyl Alcohol	3 MT;	Precursor for synthesis of copolyoxalate nanaoparticles as potential drug delivery system
7	Chlorsulon Intermediate	3.50 MT	Intermediate for API Chlorsulon [Veterinary API]
8	Nitroxinil Intermediate	3.50 MT	Intermediate for API Nitroxinyl [Verteniary API]
Total		**34 MT**	

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act.

6. The PP reported that Satellite Pharmaceuticals Pvt. Ltd. (SPPL) started operation in 1993 as an inorganic chemical industry located at Plot No. B-40, MIDC Paithan, District-Aurangabad, Maharashtra. Since production of inorganic compounds are not in purview of EIA Notification 2006, Environment Clearance was not required for production for existing inorganic products.

7. The PP reported that there is Jayakwadi Bird Sanctuary at distance of 2.9 km from project site. Godavari River (Jaikwadi Dam Backwater) – 1.5 km in West direction. There is no forest land involved in the proposed project. Brahminy Kite-Haliastus indus, Western Marsh Harrier-Circus aeruginosus, Steppe Eagle-Aquila nipalensis and Osprey-Pandion haliactus Schedule-I species are found are in the study area for which conservation plan has been prepared and submitted.

8. The PP reported that **Ambient air quality monitoring** was carried out at 8 locations during 01st March to 31st May-2022 to and the baseline data indicate the ranges of concentrations as: PM_{10} (56.30 -73.37µg/m^3), $PM_{2.5}$ (27.26- 36.62µg/m^3), SO_2 (20.96-29.96µg/$m^{3)}$ and NO_2 (25.14-39.68 µg/m^3). AAQ modeling study for point source emissions indicate that the maximum incremental GLCs after the proposed project would be 70.02 µg/m^3, 20.82 µg/m^3 and 4.2 µg/m^3 with respect to PM_{10}, SO_2 and NO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS**).**

9. The PP reported that the total water requirement is 48.453 m^3/day of which fresh water requirement of 48.453 m3/day will be met from MIDC/Recycled Water. Total effluent generated will be 10.30 KLD which will be treated in ETP of capacity 20 CMD. 17 CMD excess treated water will be sent to Waluj CETP for further treatment and disposal

10. The PP reported that the power requirement is as-

Connected Load	187 KVA
Total Demand Load	95 KVA
Solar Panel	50 KW Solar Panels will be installed on site for additional power back up
Source	MSEDCL

11. **Details of Process Emissions Generation and its Management:**

Sr. No	Name of the Product	Name of the Gas	Emission kg/Day	Emission Rate kg/Hr	Disposal Method
1	Methoxy Phenyl Acetone	CO_2	8.295	1.036	Scrubbed with chilled water and caustic solution
2	Chlosulon Intermediate	HCl	106.15	8.845	Scrubbed with chilled water and caustic solution

3	Nitrixinil Intermediate	NO	24.15	2.415	Scrubbed with chilled water and caustic solution.
Stack No	**Attached to**	**APCM**	**Stack Height**	**Parameters**	**Permissible Limit**
1	Scrubber Process	Catch pot with packed column with water supply	10m	Acid Mist, NH_3, CO_2	<35 ppm
2	Laboratory Fume cupboard	Catch pot packed column with water/Alkali supply	10m	SO_2, HCL,	<35 ppm
3	Reactor Process	Catch pot with packed column	15m	HCl, SO_2, CO_2	<35 PPM
4	Process Reactor	Catch pot with packed column	15 m	NH_3,CO_2	< 35PPM.

12. **Details of Solid Waste/ Hazardous Waste Generation and its Management:**

S.No	Description	Schedule No	UOM	Frequency	Quantity	Disposal
1.	Wastes or Residues containing oil	5.2	Kg	Month	50	CHWTSDF
2.	Organic Residues from process	4.4	Kg	Day	38.60	CHWTSDF
3.	Distillation residues	20.3	Kg	Day	94.653	CHWTSDF
4.	Spent Solvent	23.2	Kg	Day	97.6	Sale to authorized Recycler/ CHWTSDF
5.	Off specification products	28.4	Kg	Month	50	CHWTSDF
6.	Spent acids	29.6	Kg	Day	521.53	Sale to authorized Recycler/ CHWTSDF

7.	Empty Barrels / containers/ liners contaminated with hazardous chemicals / wastes	33.1	No	Month	100	Sale to authorized Recycler/ CHWTSDF
8.	Chemical sludge from waste water treatment	35.3	kg	Day	250	CHWTSDF

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 175 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 30 Lakhs/annum. Industry proposes to allocate Rs. 5.3 Lakhs towards Corporate Social Responsibility.

14. Industry has already developed / will develop greenbelt over an area of 33 % i.e., 2257.21 sq.m. out of total area of the project.

15. The PP reported that the Public Hearing is exempted as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 as the project site is located within MIDC Paithan which is declared as notified industrial area in the year 1976.

16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Managing Director- Director operation- Plant manager- EHS Manager- General Manager- Supervisior- Chemist- Worker (safety)- worker (Environement) for the functioning of EMC.

17. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

18. The estimated proposed project cost is Rs 5.3 Crores. Total Employment will be 25 persons as after expansion.

19. The Proposal considered in the **60 th EAC Meeting held on 10 th August,2023** wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP vide letter 3.11.2023 which is as follows:

S. No.	Queries Raised by EAC	Reply by PP
(i)	Certified Compliance report of the existing CTO from the MPCB	PP has not submitted the Certified Compliance report of the existing CTO. The Committee suggested to submit the same.

(ii	Action plan for green belt development of the existing unit (33%), @2500 trees per hectare, in consultation with forest department and accordingly, submit the details of green belt developed, number of trees and aerial photographs and video.	Action plan for greenbelt is submitted Total Plot Area: 6840 sq. m Greenbelt area :2,257.2 Sq. m (33%) ~ 0.225 ha No. of Existing Trees : 15 no's No. of Trees Proposed : 550 no's Total Nos of Trees : 565 no's Cost / Year: Rs. 17.23 Lacs
(ii	Revised layout plan with the requisite green belt.	Layout plan with the requisite green belt is submitted.
(iv	Details of carbon foot print and carbon sequestration study w.r.t. proposed project. Proposed mitigation measures also needs to be submitted.	Details of carbon foot print and carbon sequestration study w.r.t. proposed project and proposed mitigation measures is submitted. Total emissions (t CO2 eq. /year) : 3835.35 The total carbon sequestered through trees (565 trees) - 688.309 t CO2 eq. /year
(v	Revised effluent treatment scheme including the STP.	PP informed that total water requirement will be increased from 10 to 48.458 KLD after expansion. Effluent generation will be increased from 5 to 19.5 KLD after expansion. It was noted that PP has not submitted the treatment mechanism of effluent generated after expansion. The Committee suggested to submit Water balance chart alongwith treatment mechanism of effluent.
(v	Acknowledgement slip for the submission of the conservation plan for schedule- I species	Acknowledgement slip for the submission of the conservation plan for schedule- I species is submitted. Conservation plan has been submitted to DFO vide letter dated 11.9.2023.

20. **Deliberations by the EAC**

After detailed deliberations, EAC desired the following information:

- Satellite Pharmaceuticals Pvt. Ltd. (SPPL) started its operation in 1993 as an inorganic chemical industry located at Plot No. B-40, MIDC Paithan, District-Aurangabad, Maharashtra. PP engaged

in manufacturing of 3 inorganic chemicals - Sodium Chloride, Ammonium Chloride & Potassium Chloride. Since production of inorganic compounds are not in purview of EIA Notification 2006, Environment Clearance was not required for production of existing inorganic products. The Committee noted that PP has not submitted the Certified compliance report issued by MPCB for the existing CTO. Accordingly, the committee suggested that PP shall submit the CCR highlighting compliance of each condition in the letter head of RO, MPCB.

- PP presented that industrial effluent will be segregated into Low TDS/COD and High TDS/COD effluent streams. Low TDS/COD effluent stream will be treated in the ETP comprising primary , secondary and tertiary treatment including RO. High TDS/COD will be treated through solvent stripper followed by Evaporator. Sewage will be treated in the STP. No effluent/treated water will be discharged outside the premises and ZLD will be followed. The Committee suggested to submit the same in writing.

Accordingly, proposal was deferred for want of above additional information. Above all additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Agenda No.74. 2

Proposed project to produce Light Soda Ash (LSA) of 11,00,000 TPA capacity, 5,00,000 TPA of Dense Soda Ash (DSA) and 2,00,000 TPA Sodium Bicarbonate (SBC) located at near village Bada, Taluka - Mandvi, District - Kutch in the Gujarat state by "Greenfield Chemical Complex" of GHCL Ltd- Reconsideration of Environmental Clearance

[Proposal no: IA/GJ/IND3/408164/2022, File No. IA-J-11011/293/2021-IA-II(I)]

1. The proposal is for Environmental Clearance to the Proposed project to produce Light Soda Ash (LSA) of 11,00,000 TPA capacity, 5,00,000 TPA of Dense Soda Ash (DSA) and 2,00,000 TPA Sodium Bicarbonate (SBC) located at near village Bada, Taluka - Mandvi, District - Kutch in the Gujarat state by "Greenfield Chemical Complex" of GHCL Ltd

2. The project/activity is covered under Category 'A' of Item 4 (e) soda ash industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) as the project is located outside the notified industrial area.

3. The ToR was issued by the Ministry, vide letter no. IA-J-11011/293/2021-IA-II(I) dated 10th August, 2021. The PP applied for the Environment Clearance in the Common Application Form and submitted the EIA/EMP Report and other documents. The PP in the CAF reported that it is a **Fresh**

EC case. The proposal was placed in 72nd EAC Meeting held on 2nd January, 2024 in which EAC deferred the proposal now the proposal is placed in this 74th EAC meeting held on 6th Februay,2024 where project was wherein the PP and an accredited Consultant, M/s. T. R Associates [NABET accreditation till **NABET Accreditation Number: NABET/EIA/2326/RA 0293 valid till 8th April, 2026**], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the Total land area is **5463200 m^2;** no additional land will be used **for proposed project** and no R& R is involved in the Project. The details of various products are as follows:

Sr. No.	**Name of the Product**	**Production Capacity (MT/Month)**	**CAS Number**	**End use**
1	Light Soda Ash	11,00,000 TPA	497-19-8	Manufacturing of glass, usage in chemical industry, paper and detergent manufacturing, and food industry
2	Dense Soda Ash	5,00,000 TPA	497-19-8	
3	Sodium bicarbonate	2,00,000 TPA	144-55-8	
Captive Co-generation Power plant Steam (CFBC boilers)			120 MW	
Emergency DG Set			5 MVA	
Note- The production capacities are planned in phased manner and for Phase 1 production capacity for LSA: 5,50,000 TPA, Dense Soda Ash: 2,50,000 TPA, SBC: 1,00,000 TPA and 60 MW for Captive Co-generation Power plant.				

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that there is no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. **Marine National Park and Sanctuary, Jamnagar are located at 75 km aerial distance in South direction and Narayan Sarovar Sanctuary is located at more than 100 km aerial distance in North-West directions**. Flap shell turtle, Green Sea turtle, Indian monitor lizard, Olive Ridley Sea turtle, Black shoulder kite, Eurasian Spoonbill, Indian Peafowl, Marsh Harrier, Oriental Honey Buzzard, Gugal Schedule-I species were found in the study area for which conservation plan has been preapred and submitted to PCCF and Chief wildlife warden dated 9.11.2023.

7. The PP reported that the diversion of 0.9689 ha unclass forest for laying part of sea water intake and effluent disposal pipeline and passage for related construction equipment movement in Kachchh has been obtained vide ketter dated 18. 7.2023.

8. The PP reported the Unit has received the Final recommendation letter from GZMA vide file no ENV/ 10/ 2021/184/ T- cell dated 26.12.2023. CRZ details are as:

Activities	**Zone**
Construction of process plant and utilities etc.	Outside CRZ area
Effluent collection	Outside CRZ area
Seawater Intake system i.e. sump and pump house	CRZ III
Intake Pipeline	CRZ IA, CRZ IB and CRZ IV
Outfall Pipeline	CRZ IA, CRZ IB and CRZ IV

Laying of Seawater Intake and effluent disposal underground pipeline through tunnel from unclassified Forest area, Sand dune area, intertidal area outside project boundary.

9. The PP reported that Ambient air quality monitoring was carried out at 10 locations during December 2019 – February 2020. The baseline data indicates the ranges of concentrations as: PM_{10} (19 µg/m^3 to 53 µg/m^3), $PM_{2.5}$ (8 µg/ m3 to 17 µg/ m3), SO_2 (1 µg/m^3 to 14 µg/m^3), NOx (5 µg/m^3 to 16 µg/m^3), Ammonia (6 µg/m^3 to 19 µg/m^3), Ozone (2 µg/m^3 to 8 µg/m^3), Carbon Monoxide (0.09 mg/m^3 to 0.21 mg/m^3), Hydrocarbons [Methane hydrocarbons (0.23 µg/m^3 to 1.27 µg/m^3) and Non-Methane hydrocarbons (0.11 µg/m^3 to 0.19 µg/m^3)], Lead (Pb) (0.05 µg/m^3 to 0.27 µg/m^3), Arsenic (As) (0.02 ng/m^3 to 0.11 ng/m^3), Nickel (Ni) (0.11 ng/m^3 to 0.18 ng/m^3), Benzo(α)pyrene(B[a]P) (ND to 0.03 ng/m^3) and Benzene (ND to 0.16 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.05 µg/m^3 in case of Lignite, Coal and Petcoke with respect to PM_{10}, 10.98 µg/m^3 in case of Lignite, 2.55 µg/m^3 in case of Coal and 13.26 µg/m^3 in case of Petcoke with respect to SO_2 and 11.37 µg/m^3 in case of lignite, 7.3 µg/m^3 in case of coal and 5.62 µg/m^3 in case of Petcoke with respect to NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

10. The PP reported that the Total water requirement for project will be 15,20,060 m^3/day in case of Dry Lime process or 13,63,878 m^3/day in case of Wet Lime process which will be met from Sea water. Total Effluent of 15,88,570 m^3/day (Domestic - 160 m^3/day + Industrial – 15,88,410 m^3/day) in case of Dry Lime process or 14,48,818 m^3/day (Domestic - 160 m^3/day + Industrial – 14,48,658

m^3/day) in case of Wet Lime process. The Process effluent generated i.e. from distiller waste, brine purification reject, RO/DM rejects will be disposed off along with once through return cooling water/fresh seawater into Arabian Sea as per recommendation of NIO. The characteristics of the discharge water are within the norms prescribed by CPCB.

11. The PP reported that the Power requirement for proposed project will be 120 MW and will be met from Captive Co-generation Power plant. D. G. Set (5 MVA X 1) [Fuel: HSD (60 KL)] shall be provided and used only in case of power failure. Stack (30 meter) and Retrofit shall provide as per CPCB norms to the DG sets. Industry will provide six Steam Boiler (150 TPH) for captive power plant, six lime kilns and D G sets

12. **Details of process emissions generation and its management:**

SR.NO.	**Stack attached to**	**Capacity**	**Height of the stack (m)**	**Fuel & its Consumption**	**Expected Pollutant**	**APC System**	**GPCB Limit**
1	CPP with flue gas desulphurization CFBC Boiler (6 Nos.)	150 TPH	130 m	Imported Coal/Lignite/ Pet coke (Imported Coal: 13,14,000 TPA, Lignite :19,71,000 TPA, Pet coke: 9,12,500 TPA)	SPM SO_2 NO_2 Hg	Individual ESP with each Boiler	PM ≤ 30 mg/Nm^3 SO_2 ≤ 100 mg/Nm^3 NO_2 ≤ 100 mg/Nm^3 Hg ≤ 0.03 mg/Nm^3
2	D G Set (2/3 Nos.)	5 MVA	30 m	HSD (60 KL)	HC CO PM NO_x	Retrofitting	NOx 710 ppmv NMHC 100 mg/Nm3

							PM 75 mg/Nm3 CO 150 mg/Nm3
3	Lime Kiln 1		68 m	Coke or Briquette or Anthracite (Coke - 1,30,000 TPA, Briquette- 1,55,000 TPA, Anthracite - 1,10,000 TPA)	SPM SO_2 NO_2	Scrubber and Dust Collector system	SPM ≤ 150 mg/Nm^3 SO_2 ≤ 100 ppm NO_2 ≤ 50 ppm
4	Lime Kiln 2		68 m			Scrubber and Dust Collector system	
5	Lime Kiln 3		68 m			Scrubber and Dust Collector system	
6	Lime Kiln 4		68 m			Scrubber and Dust Collector system	
7	Lime Kiln 5		68 m			Scrubber and Dust Collector system	
8	Lime Kiln 6		68 m			Scrubber and Dust Collector system	

SR.NO.	**Stack attached to**	**Height of the stack (m)**	**Expected Pollutant**	**APC System**
1	Ammonia Recovery system	42 m	Ammonia	Water scrubber

2	Lime grinding system / Slaker	65 / 20 m	PM / Water vapor	Bag filter / Adequate stack height
3	Calciner unit	37 m	PM	Scrubber, Bag filter
4	Densification	43 m	PM	Scrubber
5	Sodium Bi-Carbonate Unit	30 m	PM	Bag filter
6	Lime Kiln	Closed system	PM	Scrubber and Wet ESP

13. **Details of Solid Waste/ Hazardous Waste Generation and Its Management**:

Sr. No.	Type of Waste	Mode of Disposal
1	ETP Sludge from treatment of effluent generated from captive power plant & RO/DM Plant	The effluent from power plant, RO/DM plant will require only neutralization & it will have negligible BOD/COD. Sludge will be disposed off in nearby landfill site.
2	Used Oil / Used Cotton	It will be sold to MoEF&CC/CPCB registered recyclers only. Approx. 12 KL
3	Discarded Drums	It will be sold to approve traders. Approx. 5 MT/yr
	Discarded Bags	It will be sent back to supplier for reuse.
4	Spent Ion exchange resin	To be sold to authorized recyclers or will be incinerated at MoEF&CC/CPCB approved TSDF for which plant will obtain membership. Approx. 3000 l/yr
5	Lead acid Batteries	It will be sold to authorized agency through auction.
6	Ash (Fly ash & Bottom Ash) from Boiler	The Boiler ash will be used for cement Manufacturing/ Brick Manufacturing. Approx. 750 TPD
7	Limestone rejects	It can be used in Boiler for desulphurization and as a sweetener in cement industry, road making, pavement etc. 5% of lime stone consumption.

8	Settled sludge	Since settled sludge, non-hazardous in nature, it is proposed to be disposed off in Nearby landfill site.

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ **205.07 crore** (capital) and the Recurring Cost (operation and maintenance) will be about ₹ **6.98 Crore** per Annum. Industry proposes to allocate ₹ **18.04 Crore** towards CER.

15. The PP reported that Public Hearing for the Proposed project has been conducted by the State Pollution Control Board at the project site on **17.10.2022**. The main issues raised during the public hearing are related to the air pollutants, water pollutants, schedule 1 conservation plan, fishing, traffic etc.

16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment officals for the functioning of EMC.

17. The PP submitted the Disaster and Onsite and Offsite Emergency Plans in the EIA report.

18. The estimated total project cost is **Rs 3550 Crores**. Total Employment will be **1200** persons as direct.

19. Intake pipeline and outfall pipeline fall in CRZ 1A, 1B and IV area as per demarcation. It was reported that construction of process plant and utilities fall outside the CRZ area. SCZMA recommendation has been obtained for Laying of Seawater Intake and effluent disposal underground pipeline through tunnel from unclassified Forest area, Sand dune area, intertidal area outside project boundary.

20. The Public Hearing earlier was scheduled to be held on 16-04-2022 at 11:00 Hrs, Venue: Project Site, Survey no. 432, Village: Bada, Taluka: Mandvi, District: Kutch, Public hearing was then time being postponed due to unavoidable circumstances. After that public hearing was completed on **17-10-2022 at 11.00 Hrs.** Venue: Project Site, Survey no. 432, Village: Bada, Taluka: Mandvi, District: Kutch, Gujarat. Which was presided over by Shri Chetan Mishan(GAS), Sub Divisonal Magistrate & Deputy Collector, Mundra- Kutch. Public hearing Details as given below:

S.No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
1	CSR–Fodder	4	Steps to be taken for cattle Care about Maldhari community Security regarding fodder supply for livestock.	Fodder will be provided as well as provision for veterinary doctor will be carried out by GHCL foundation under CSR activity.	• Activities for fodder supply will be carried out under CSR and CER activities for strengthening the bond between the project authorities and the local population. (refer Ch-8 and Table 10.4 in Ch-10). Fodder field will be developed on the Government/allocate land to nearby villages. • Unit will do promotion through providing support for breed improvement, animal health care, fodder improvement and providing veterinary doctor in nearby villages under CER and CSR activities for communities. • During year 2020-2021, GHCL foundation has spent INR 9.03 Crores towards CSR activities. CSR projects/activities worth INR 19.09 Cr. were implemented. GHCL wide range of CSR projects have touched and benefitted more than 90,200 lives over the years. Promoting	• As per MoEF&CC Office Memorandum F.NO. 22-67/2017-IA III, MoEF&CC, New Delhi, dated on 1st May 2018 GHCL Ltd has earmarked 0.5 % of capital investment (appro. Rs. 18.04 crore), towards the Corporate Environment Responsibility in 5 years • GHCL Ltd will spend approx. **4.35 crore*** towards Animal husbandry promotion through providing support for breed improvement, animal health care, Veterinary doctor and others as well as provides Fodder for cattle feeding nearby villages as per requirement under CER activities (*value may defer as per actual requirement)	5 years	GHCL Limited
2	Employment	5	For employment of local villagers Number of employment opportunities to be Priority must be given to nearby 10 villages Regarding priority to nearby villages	Information on employment opportunities has given by Project Proponent that there are different types of employment opportunities in the two phase of the projects i.e. construction	• The proposed project has a potential for employment of skilled, semiskilled and unskilled employees during	• GHCL Ltd will spend approx. 2.25 crore towards Promoting activities for skill building to improve	During construction and Operation phase	GHCL Limited

S.No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			for labor work Regarding employment for local communities.	phase and operational phase of the project. GHCL will strive to provide these employment opportunities to the local people, for which work will be done for their skill development and employment opportunities will be provided to the local people. As per requirement, training will be given to local people in coordination with HR department. Priority will be given for employment of local people. In nearby villages a group of women can be formed so that they can work in Gruhudhyogs (Home- based business). M/s. GHCL shall provide employment to women as per their skills and qualification.	operational phase. The plant will create direct employment in phased manner for about 1200 (operational phase) skilled as well as semi-skilled staff and indirectly large number ofunskilled manpower will be engaged for the project. For Employment, local people will get first priority as per suitability and requirement. People will also get employed by the contractors for various project related activities. (Refer Ch-8 of EIA report) • GHCL foundation will carry out skill development Programme for local youth to improve their employment opportunities, women empowerment under CSR and CER activities.	employment opportunities and women empowerment in nearby villages under CER activities.		
3	CSR-Health	1	Regarding health facilities under CSR activities	Will provide mobile health van facility and upgradation of existing healthcare infrastructure	• Industry will provide Mobile Health Care, Health Camps, and Specialized Check Up Camps in nearby villages. Necessary support and help will be extended for advanced diagnosis and treatment wherever identified, Free medical health checkup under CSR and CER activities.(Refer Ch-8 of EIA report). We have already initiated mobile health van facility for nearby affected villages of project site.	• GHCL Ltd will spend approx.. 1.12 crore towards Infrastructure development Such as primary healthcare units and the fulfilment of the basic amenities in PHCs including mobile medical van and Provide Bala-Rasayana to Malnutrition Children in Aanganwadi and PHC of nearby Villages under CER activities. • GHCL Foundation will spend approx..	5 years	GHCL Limited
4	CSR-Education	3	Regarding scholarship under CSR activity Regarding skill development of youth and improvement of	Will build school in future as per requirement and will also upgrade the existing school infrastructure and will carry out	• Unit will be directed at two levels viz. school and skill building to improve employment opportunities. At		5 years	GHCL Limited

S.No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			Conditions To provide educational facilities	skill development activities	school level we intend to promote quality of education and learnability, develop infrastructure of Government schools, provide vocational training as per the requirement under CSR and CER activities. • GHCL foundation will support local government and NGO to make that program more effective. • GHCL foundation will carry out skill development Programme for local youth to improve their employment opportunities, women empowerment under CSR and CER activities. • During year 2020-2021, GHCL Foundation has spent INR 9.03 Crores towards CSR activities. CSR projects/activities worth INR 19.09 Cr. were implemented. GHCL wide range of CSR projects have touched and benefitted more than 90,200 lives over the years. Promoting such activities like water conservation, Animal husbandry, health care, SHG, Infrastructure development etc.	towards Infrastructure development for quality of education, which will ultimately upgrade schools in nearby villages under CER activities.		
5	Air Pollutants (SOx, NOx, Dust)	6	Height of chimney to be installed Levels of Sox and NOx Regarding acid rain cause by Sox Emission of PM during transportation and Emission of heavy metal such as	For minimizing Air Pollution, requisite height of the stacks will be provided as per the NAAQS norms. Besides this, Modern technology equipment's like Dust collector, Electrostatic Precipitator, Scrubber will	• The best available technology-based pollution prevention and control shall used to meet the regulatory standards and these pollution control systems will be commissioned before	• Air pollution • Capital cost would include air pollution control devices like ESPs, Scrubbers, Dust extraction	During operation phase	GHCL Limited

S.No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			mercury. Regarding once through cooling for 120 MW. Regarding linkage of fuel and how they are going to use it	installed. As a result, the pollution level will be within standard limits. GHCL will continue to support development of green belt in the surrounding villages through various agencies including GHCL Foundation (AF). GHCL shall endorses AF tree plantation movement of planting trees in entire Mandvi Taluka and 50,000 trees that mentioned, GHCL shall surely nurture those plants for five years.	commencement of operation of the project. Wherever possible, the control systems shall be interlinked with the operational units, so that failure of the control system shall shut down the respective operational unit. • High efficiency ESPs shall be provided in the flue gas path of the CFBC boilers for control of particulate matter. • Finely ground limestone will be added to the boiler combustion zone • together with coal/lignite to arrest the SO2 formed during combustion. • Lime stone dozing system to the furnace to be designed to achieve higher than 90% capture of SO2. Monitoring system(CEMS) of air pollutants SO2, NOx, NH3, PM10 and PM2.5 will be implemented. • So, the expected pollutants will be well within standard norms. • The air quality monitoring will be carried out on regular basis by approved agencies by CPCB/GSPCB. (refer Ch-6 and Ch-10 of EIA report) • GHCL will implement greenbelt /plantation program to ameliorate the pollutants and improve the aesthetics and ambient air quality. (refer Ch-10 of EIA report) • There is negligible cooling water requirement for power generation. There is no any alternative effective system is available for soda ash plant.	Stacks, Dry Fog system, Wind screen etc- 89.28 crore • recurring cost would include operation and maintenance of pollution control devices- 1.50 crore • **Environmental monitoring Programme** capital cost include OCEMS, online weather station etc- 3.4 crore • Recurring cost – 0.95 crore • Greenbelt • Capital Cost- 20 Crore • Recurring Cost- 0.5 crore		

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					• There is no readily available infrastructure for transportation of fuel i.e. rail or water way. So, we have to transport through road. Traffic study are shown in section 3.2.3 of chapter-3 and impact due to transportation is show in 4.1.4.3 and 4.2.3 of Chapter-4 in EIA report. In future, any alternative option available will explore. • GHCL Foundation will also promoting plantation activities in nearby villages under CSR and CER activities			
6	Water pollutants (BOD,COD,Ammonia, Mercury, Sea Weed, Mangroves)	7	Regarding water related question by Koli society Regarding decrease in number of phytoplanktons and disruption of food chain Regarding temperature and presence of ammonia in waste water Regarding presence of mangroves Regarding setup of tunnel for intake of sea water, seismic zone in which company falls, liquification of land due to heat Regarding discharge of effluents into sea containing ammonia and high temperature and death of fishes at Sutrapada plant Regarding quality of effluent in terms of BOD and COD	Effluent will be highly alkaline so it will be mixed with HCL and then it will be disposed off in sea. Design of structure will have done according to seismic zone V. In soda ash industry impact of ammonia is very low.	• Industry will provide adequate effluent management and monitoring system for disposal of treated water • Proper seawater intake and treated effluent disposal (ensure maximum dilution) shall be done as per recommendation Marine EIA report. • The water monitoring results of (surface and groundwater and marine) should be carefully evaluated to identify significant changes, if any, adverse change from the baseline accordingly, corrective measures will be taken to ensure the sustenance of water quality. However, there is no ground water pollution is envisage in such soda ash plant, • The ammonia concentration in treated waste water well	• Capital cost would include cost of ETP, STP etc- 14 crore • recurring cost would include operation and maintenance of pollution control	During operation phase	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					within the limit specified by CPCB for soda ash industry. • There is no such fish kill cases due to treated effluent in existing plant. There are independent studies available which indicates there is no significant adverse impact on marine environment but there will be positive impact on environment. • During studies, there is no such mangroves identified in sea water intake and outfall line area. • Design of pipeline/tunnel will be done according to seismic zone V. In case of catastrophic failure/ liquification on land, there are no chances of flooding as water transport through gravity.			
7	Marine Life	1	Effect on marine life due to proposed project	No adverse impact on fish or marine animals and sea weed observed.	• Industry should be ensured that the effluent released to the sea meets the prescribed GPCB/ CPCB norms at all times. This should be verified through tracer studies after the outfall becomes operational. The effluent release scheme can then be adequately modified to ascertain necessary dilution, if required. The efficiency of the diffuser must be checked periodically and if necessary, it should be cleaned to revert back to the dilution ascertained through initial tracer studies. • There are independent studies available which indicates there is no significant adverse	• A provision of Rs. 1 crore to be earmarked for the biodiversity management plan to be implemented in the project area during construction phase and operation phase. • For periodic monitoring of the marine area environment during project • construction phase, a provision of Rs. 0.5 crore to earmarked. • For operation phase, Rs. 0.3 crore per year to be kept provision	During constructio n and Operation phase	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					impact on environment but there will be positive impact on environment. • Design of pipeline/tunnel will be done according to seismic zone V. In case of catastrophic failure/ liquification on land, there are no chances of flooding as water transport through gravity.			
8	Health & Hygiene(Ammonia Leakge)	2	Skin diseases due to Soda Ash Regarding the leakage of ammonia.	GHCL will take care of any such issues related to Health of local peoples and workers. All the necessary measures for handling of chemicals will be implemented to reduce its impact on health of peoples. This information is also provided in the EIA report. All the pockets will have leak detection and repair system technology. Moreover, periodical maintenance will also be carried out. GHCL will ensure that there will be no leakage and therefore, there will not be occupational health issues for workers or villagers working in the plant. Moreover, GHCL	• Ammonia tanks should have latest instrumentation provision for pressure indication, temperature indication and level indication. The provision of instrumentation should be within 100 percent redundancy. Continues recording of major parameters pertaining to the storages shall be maintained in the control room. • Unit will provide all the safety measure for ammonia storage	• Capital cost would include cost of OHS center, PPEs, fire & safety instruments, automation system for ammonia storage – 3.4 crore • Recurring cost would include maintenance charges and training, audit & health check-up etc.- 0.35	During operation phase	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					commissioned before commencement of operation of the project. Wherever possible, the control systems shall be interlinked with the operational units, so that failure of the control system shall shut down the respective operational unit. There is no significant impact observed in the existing soda ash plants in Gujarat.. • There are rare possibilities of ammonia leakage			
9	CSR - Farmers	3	Facilities to be provided How hygenic the plant will How hygenic will be bada plant and what facility will be provided to the farmer.	GHCL Foundation is already providing subsidy for drip irrigation and GHCL will also consider to support this scheme further out of the CSR funds proposed for this project. To help agriculture, GHCL will help farmers as part of our CSR activity in consultation with villagers. The details and type of developmental work will be decided in consultation with villagers. GHCL foundation has been working for farmers through its different schemes like ground water recharge, water harvesting	• Industry will Promote environment friendly and nature-based solutions to enhance productivity of farming (Organic Farming) activities. It covers capacity building on farming techniques, provision of high-quality seeds/manure, efficient irrigation solutions, etc. under CSR and CER activities	• GHCL Ltd will spend approx.. 3.00 crore towards Promoting environment friendly and nature-based solutions to enhance productivity of farming (Organic Farming) activities. It covers capacity	5 years	GHCL Limited
10	EIA Report & PH	14	EIA report is not correct	The terrestrial EIA report	• It is requested to note that as			GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
	advertisement		Regarding the alternative of site modhwa village. Regarding the NIO accreditation to prepare marine EIA report Regarding ToR granted and Study carried out prior of ToR granted. Regarding the advertisement of the PH Regarding NABET accreditation of consultant organization Regarding Marine EIA Regarding NEERI who has prepared EIA report Regarding the correction in EIA report Regarding the monitoring data collection Regarding accreditation certificate of additional studies for ecology.	prepared by CSIR NEERI and Marine EIA report is prepared by NIO, Mumbai	per OM number J-17011/8/92-IA-III dated 8th August, 2019, there are 7 institutes/agencies authorized for preparation of CZMPS in consonance with the provision of CRZ notification, 2019 vide GSR 37(e) dated 18/01/2019. IRS anna university Chennai has prepared the CRZ map for GHCL LTD. CSIR - NIO is Expert hired to carryout the Marine EIA study. • EIA report has been prepared by CSIR-NEERI, which is reputed governmental body and QCI NABET accredited consultant.			
11	Vipassana	3	Project site is near Vipassana meditation center The meditation center will be disturbed due to industry. Ammonia used in the industry. Related to presence of Vipassana center and other religious places in 15km radius of project site	--	• Environmental Management Plan envisages the plans for the proper implementation of mitigation measures to reduce the adverse impacts. • The EMP implementation will minimize the impact of atmospheric emissions, liquid effluents, solid wastes and noise generation on the surrounding environment.	• Cost of Environment management plant including various installations for	--	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					ash manufacturing industry. • It is reported in CSIR NEERI report that there are no significant impact expected on man-made sensitive installations and habitations. On basis of study of present environment condition near project area and impact prediction and control measures proposed by GHCL Ltd. The proposed project will not have any significant negative impact on environment. Company operations are limited to the plant boundary and no negative impacts on Vipassana Centre are anticipated. The company will have robust peripheral Green Belt in	• Recurring Cost- 0.5 crore		
12	CSR - Animal Husbandry	3	Regarding arrangements for Animal Regarding distribut Regarding number of cattle present in the area	GHCL Foundation will support nearby community by providing education and livelihood support to make them self – reliant.	• Unit will do promotion through providing support for breed improvement, animal health care, fodder improvement and providing veterinary doctor in nearby villages under CER and CSR activities. • Unit will also promote development Initiatives for Fishing Communities such as Creation of infrastructure like ice plants, cold storages as well as provide operational inputs such as fishing boats, nets and engines • We have already provided veterinary doctor for	• GHCL Ltd will spend approx.. 4.35 crore towards Animal husbandry promotion through providing support for breed improvement, animal health care, Veterinary doctor and others as well as provides	5 years	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
13	Site Selection	2	Regarding the alternative of site modhwa village. Regarding showing presence of marshy land near coastline	--	During the site selection, the alternative sites considered for setting-up of the proposed chemical complex project are given below: : Site 1 – Village Pingleswar, Taluka – Abdasa, Dist. Kutch Site 2 – Village Suthri, Taluka – Abdasa, Dist. Kutch Site 3 – Village Bambhdai, Taluka – Mandvi, Dist. Kutch Site 4 – Village Bada, Taluka – Mandvi, Dist. Kutch Site 5 – Village Modhva, Taluka Mandvi, Dist. Kutch The site at village bada is considered favorable based on the environmental and logistic advantages over other four sites. Justification	--	--	GHCL Limited
14	Sand Dunes	2	Concern of presence of sand dunes at bada coast Regarding digging of sand dunes for preparation of tunnels for water intake	--	• There is no disturbance to existing sand dunes. • Tunnelling work (much below ground level) for laying pipeline through sand dunes will be done by adopting proven construction methodology like micro tunnelling. The detailed Studies on sand dune mapping and morphological changes near the project site was carried by National Institute of	--	--	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
15	Turtle	3	Regarding presence of turtles on the coastline of bada Regarding information on endangered species not mentioned in EIA report Regarding hatching and presence of sea turtles	--	• Study on Status Survey and Conservation Plan for Sea Turtles along Mandvi Taluka, Bhuj, Gujarat by **Zoological Survey of India, Kolkata (April,2019)** is attached with EIA report. • ZSI study report mention that they did not any encounter any sea turtle and fresh/old nests or crawl marks of turtles on the beach. Since many of the factor for selection of a suitable nesting site are not conducive. • As per additional Ecological and Biodiversity study, suggests that the coast near the proposed project site may not be	• Contribution to Forest department for Sea Turtle Conservation Activities- 0.20 crore	10 years	GHCL Ltd
16	Schedule 1 species	4	Regarding presence of greater numbers of	--	• Details of schedule -1	• the proposed	10 years	GHCL Ltd

S. No.	Issue related to	Nos. Issues	Concern in PH	G HCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
	Sandha and indian Monitor Lizard)		stated in report Presence of reptiles and amphibians not reported Related to study of presence of Indian Monitor Lizard in study area Regarding presence of gugal trees,		already incorporated in EIA report. • GHCL shall make financial allocations for taking up wildlife mitigation measures and for contribution to forest department for carrying out activities towards propagation, protection and conservation of wildlife. • GHCL Ltd have submitted Conservation Plan (Flap shell turtle, Green Sea turtle, Indian monitor lizard, Olive Ridley Sea turtle, Black shoulder kite, Eurasian Spoonbill, Indian Peafowl, Marsh Harrier, Oriental Honey Buzzard, Shikra, Short-toed Snake	Allocation for conservation of Schedule 1 species for 10 years is 1.25 crore		
17	Conservation Plan	2	Regarding conservation plan for Schedule 1 species Concern regarding green sea turtles and conservation plan for them	--	• GHCL shall make financial allocations for taking up wildlife • mitigation measures and for contribution to forest department for carrying out activities towards propagation, protection and conservation of wildlife. • The unit have submitted Conservation Plan (Flap shell turtle, Green Sea turtle, Indian monitor lizard, Olive Ridley Sea turtle, Black shoulder kite, Eurasian Spoonbill, Indian Peafowl, Marsh Harrier, Oriental Honey Buzzard, Shikra, Short-toed Snake Eagle,	• the proposed budget allocation for conservation of Schedule 1 species for 10 years is 1.25 crore	10 Years	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					department of			
18	Form 1(Water Bodies, Temples, Schedule 1 Species)	5	Regarding presence of waterbody not shown in form-1 Regarding religious places and lakes not mentioned in PFR Waterbody not mentioned in form-1 Data given in form-1 and EIA are different Waterbody not mentioned in form-1	--	• Environmental settings are given in Chapter-1 and Chapter-5 of EIA report. Approximate distance of water bodies, temples etc are given in EIA report. • Through drainage studies of the area, it was observed that there is one stream of 1st order entering the plant area from north. Although, it has small catchment area, it is proposed that this stream, will be diverted to nearby passing Vengadi River in the west. • There are also pond inside the premises. It is	• -Cost of drainage network of surface runoff, rainwater collection pond and rain water harvesting system – 53 crores (included in EMP)	--	GHCL LTD
19	Govt. Land	3	Regarding type of land to be procured by the industry Regarding status of government land to be procured Providing data for proving gauchar land	--	• There is no gauchar land within proposed project site. M/s GHCL has applied to Industries Commissioner and District Collector for allotment of aforesaid land. Industries Commissioner has granted In Principle approval for Bonafied Industrial Purpose. District Collector has initiated actions for	--	--	GHCL LTD
20	Fishing	8	Regarding details of Pagadia fisherman not mentioned and Marine EIA is misinterpreted	--	• Proper seawater intake and treated effluent disposal (ensure maximum	• A provision of Rs. 1 crore to be earmarked for the	During construction and	GHCL LTD

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			Regarding disturbance to fishes due to presence of pipeline Regarding status of fishing near bada and Mandvi Related to number of fisherman not incorporated in study -- Related to presence of dead fishes not reported in study, fishing carried out for commercial purpose Regarding presence of fisherman in study area		Marine EIA report prepared by NIO Industry should be ensured that the effluent released to the sea meets the prescribed GPCB/ CPCB norms at all times. This should be verified through tracer studies after the outfall becomes operational. Details of Fishery and fishermen including their family and population are given in Chapter-3 of marine EIA report. Other than construction phase, there will be no any impact on pagadiya fisher men. As shore line will remain undisturbed. It is mentioned in marine EIA report that no large-scale commercial fishing operation prevail in the study area except for minor shore based and Gill net operations. There are independent studies available which indicates there is no significant adverse impact on environment but there will be positive impact on environment. Unit will also promote development Initiatives for Fishing Communities including pagadiya under CER and CSR activities	implemented in the project area during construction phase and operation phase. • For periodic monitoring of the marine area environment during project • construction phase, a provision of Rs. 0.5 crore to earmarked. • For operation phase, Rs. 0.3 crore per year to be kept provision for • the monitoring. • GHCL Ltd will spend approx.. 0.75 crore towards Development Initiatives for Fishing Communities	Operation phase	
21	Water Body (check dams)	2	Related to presence of seasonal river which passes near bada village and presence of dam over it	--	Through drainage studies of the area, it was observed that there is one stream of 1st order	• Cost of drainage network of surface	During construction and	GHCL LTD

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			Related to distance of river from project site		entering the plant area from north. Although, it has small catchment area, it is proposed that this stream, may be diverted to nearby passing Vengadi River in the west, which has two check dams, one for salinity ingress check and on upstream side for storing fresh water. This will not cause any adverse impact on the downstream. For channelizing the monsoon run off from the area adjacent to plant it is required to construct peripheral drain along plant boundary so that flooding is avoided and run off find its way to the natural slope towards Arabian Sea. So, the present hydrological setting of the area will remain unaffected. So, the present hydrological setting of the area will remain unaffected. The additional water enter into the vengadi river through drainage will not impact on check dam. As any additional water above the river and check dam shall overflow to the Arabian sea.	pond and rain water harvesting system – 53 crores (included in EMP)	Operation phase	
22	Traffic (RMH, Heavy Trucks, Road Usage)	4	Regarding number of trucks passing due to project for raw Related to traffic study not mentioned in ToR, impact not carried out Concern regarding public roads Regarding number of trucks passing	--	Traffic study are shown in section 3.2.3 of chapter-3 and impact due to transportation is show in 4.1.4.3 and 4.2.3 of Chapter-4 in EIA report. We will use existing road network as no other transportation i.e. rail/water ways are available. We have carried out calculation on	--		GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					Traffic study (Level of Service) and added on Form Part-C.			
23	CSR General	1	Regarding past data of CSR -- Regarding to dusting due to kiln and power plant,	GHCL has proposed CSR budget in the EIA report which will be utilized based on need identification and village development meetings. CSR will be implemented with CSR implementing agencies including GHCL Foundation is working in following area. 1. Agro-livelihood and animal husbandry, 2. Education and skill development, 3. Health, water, and sanitation.	• GHCL's commitment towards the development of weaker sections of society has been a continuous initiative for more than two decades. Through its "GHCL Foundation Trust", GHCL has upgraded its CSR activities to cover a larger section of the society to provide support to the downtrodden, needy and marginalized citizens and also to create a social infrastructure for their sustenance. GHCL Foundation serves as the Corporate Social Responsibility arm of GHCL Limited and represents our commitment to the holistic development of our surrounding community. During year 2020-2021	--	--	GHCL LTD

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					Infrastructure development etc.			
			Regarding pollution to be caused by industry -- Regarding to dusting due to kiln and power plant,		• Environmental Management Plan envisages the plans for the proper implementation of mitigation measures to reduce the adverse	• Cost of Environment management plant including various installations for		GHCL Limited

24	Pollution and Environment General	4	Related to disposal of effluent water	Unit will follow all the rules and regulation with their subsequent amendments as directed by concerned authorities	impacts. • The EMP implementation will minimize the impact of atmospheric emissions, liquid effluents, solid wastes and noise generation on the surrounding environment	Air Pollution, Water Pollution, Noise Control, Greenbelt Development, Occupational Health and Safety and other related activities.- 205.07 crore	--	
25	Forest area	2	Related to distance of project site from forest area Details regarding families dependent on forest	There is no classified forest area.	• There is no forest land within the boundary of proposed project site. However, some part of the unclassed forest area located south of the project site outside boundary. Sea water intake and outfall pipeline will pass through underground micro tunnel in specific corridor to cross forest area. The permission from the Forest Department is	--	--	GHCL LTD

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					of 0.9689 Ha. of un-class forest			
26	Supporting for Industrial Development to GHCL LTD	--	For Employment For Infrastructure development in nearby village Social upliftment towards nearby villages Health facilities Women empower ment Skill	GHCL LTD team thanked for welcoming the industries	--	--	--	--
	Total	94						

21. The Proposal was considered in the 72nd **EAC Meeting held on 2.1.2024** wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP vide letter dated 30.1.2024, which is as follows:

<table>
<tr><th>S. No.</th><th>Queries Raised by EAC</th><th>Reply by PP</th></tr>
<tr><td></td><td>Action plan for disposal of gypsum and fly ash generated from desulphursation plant</td><td>The Fly Ash and Gypsum generated from the Desulphurization plant is provided in the below table followed by the Action Plan for the Disposal of Fly Ash and Gypsum.
<table>
<tr><th>SR. NO.</th><th>FUEL</th><th>FUEL CONSUMPTION TPH</th><th>FLY ASH GENERATION, TPD</th><th>GYPSUM GENERATION, TPD</th><th>TOTAL GENERAT TPD</th></tr>
<tr><td>1</td><td>Coal</td><td>150</td><td>405.216</td><td>117.457</td><td>796.588</td></tr>
<tr><td>2</td><td>Lignite</td><td>225</td><td>765.828</td><td>880.924</td><td>2726.847</td></tr>
<tr><td>3</td><td>Pet Coke</td><td>104.17</td><td>10.675</td><td>741.519</td><td>1389.667</td></tr>
</table>

While utilization of Coal as fuel the percentage of Fly ash and Gypsum in the total Ash generated will be 50.87% and 14.74% respectively.
While utilization of Lignite as fuel the percentage of Fly ash and Gypsum in the total Ash generated will be 28.08% and 32.31 % respectively.
While utilization of Pet coke as fuel the percentage of Fly ash and Gypsum in the total Ash generated will be 0.77% and 53.36 % respectively.

➢ It is noted that gypsum and fly ash separation is not possible in the dry desulfurization system. However we assure that the unit will primarily use Coal and Lignite as fuel. Pet coke will only be utilized as a fuel alternative in the circumstances when Coal and Lignite are unavailable. Action Plan For The Disposal Of Fly Ash And Gypsum Letter From Cement Industry is submitted.</td></tr>
<tr><td></td><td>Action plan for management and disposal</td><td>PP reported that :
➢ Main source of $CaCl_2$ and $CaSO_4$ Contain wastewater will be from distillation process wastewater.</td></tr>
</table>

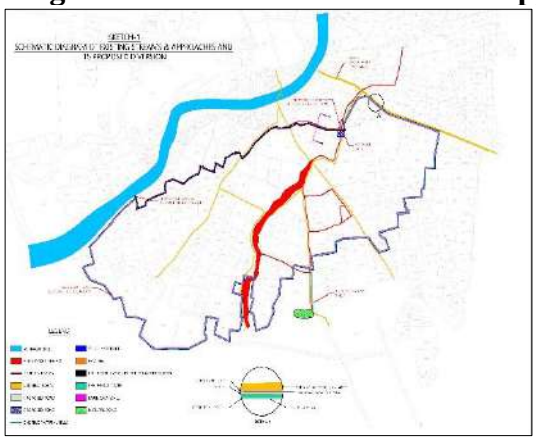
of $CaCl_2$ and $CaSO_4$.

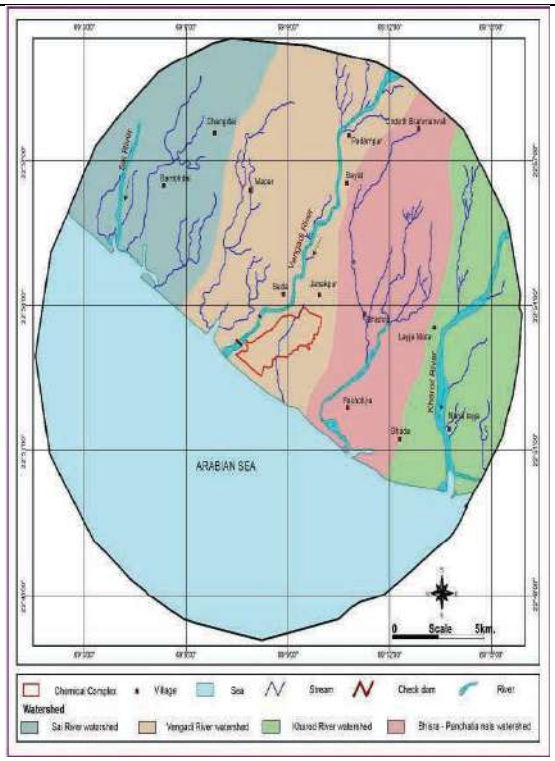
- The **concentration of $CaSO_4$ and $CaCl_2$** in the wastewater from Distillation unit will be **0.13 % and 11.35 %** respectively.
- The discharge of final effluent into the deep sea with an average **dilution of 30 to 40 times** will further **dilute the concentration of $CaSO_4$ and $CaCl_2$.**
- The concentration of **$CaSO_4$** in the final effluent will be reduced from **0.13 % to less than 0.07%** while the concentration of **$CaCl_2$** will be reduced from **11.35 % to less than 6.09%.**
- Other impurities in the final effluent will contain CaO, MgO, NaCl, $MgCl_2$, $CaCO_3$ and Silica etc.
- The characterization of the wastewater stream, suggests that the composite effluent discharged into the Arabian Sea will maintain the concentrations well within the CPCB norms.
- **As a result, it is anticipated that the effluent will have no adverse impact on the marine environment and the nearby terrestrial habitat.**

CHARACTERIZATION OF WASTEWATER STREAM

SR. NO.	**PARAMETERS**	**WASTEWATER STREAMS**						
		RO/DM PLANT REJECT	**BRINE PURIFICATION REJECT**	**DISTILLER WASTE**	**BOILER BLOWDOWN**	**ONCE THROUGH COOLING**	**FRESH SEA WATER FOR DILUTION**	**COMPOSITE EFFLUENT AT DISCHARGE POINT***
		EFFLUENT QUANTITY, m^3/day						
		97,160	2,550	27,000	120	8,07,000	5,14,678	14,48,508
1	pH	7.2	12	9.8	10.0	8.0	7.5	6.5- 9.0

		2	Temperature	30-35°C	30-35°C	95°C	90°C	30-35°C	30-35°C	Will not exceed 5°C above the ambient temperature of the receiving water body
		3	Suspended Solids	Nil	54,000 mg/l	45,430 mg/l	100 mg/l	Nil	Nil	<1000 mg/l
		4	Ammonical Nitrogen	Nil	Nil	40-45 mg/l	Nil	Nil	Nil	< 50 mg/l
		5	Oil & Grease	Nil	Nil	Nil	Nil	Nil	Nil	< 5.0 mg/l (Occasionally)

	Details of existing natural drains within the proposed project site as well as proposal for diversion if any. Details of measures to be taken to maintain the flow	➢ By conducting the drainage studies of the area, it is observed that there is a one stream of 1st order entering the plant area from north. ➢ Although, it has small catchment area, it is proposed that this stream, may be diverted to nearby passing Vengadi river in the west has two check dams, one for salinity ingress check and on upstream side for storing fresh water. ➢ It is proposed that this pond may be deepened by 2 metres so as to store entire annual surface runoff for ground water recharge and for plant use. ➢ With the proposed deepening, there will not be any possibility of any overflow in the plant. ➢ While the other two rivers will continue to flow as these are not being affected by the setting up of the plant. ➢ So, the present hydrological setting of the area will remain unaffected. ➢ Detailed Hydrogeology Assessment study report prepared by Hydro-Geosurvey Consultants Pvt. Ltd. , Jodhpur. Report is verified by **CSIR NEERI and T R Associates.** ➢ **Hydrogeological assessment Study is submitted which comprises of :** **Schematic arrangement for stream diversion and approach roads**  **DRAINAGE AND WATERSHED MAP OF BUFFER ZONE**



- Project Site is superimposed on the drainage and watershed map with red color boundary.
- Proposed project is fall under the Vengadi river Water shed.
- 1st order stream passing through the project site is demarcated in blue color.
- 1st order stream will be diverted into the Vengadi river followed by Arabian sea.

VENGADI WATERSHED

- Vengadi watershed within buffer zone covers area of **84.43 km^2** with gradient of about **2.20 m/km** towards Arabian sea.
- The catchment yield of Vengadi watershed is estimated as **4.40 mcm** taking average annual rain, which amounts to **434 mm.**
- Average value of Strange's run off percentage of the buffer area is calculated from Strange's monsoon rainfall-runoff curves considering the catchment area as good and the run off % for **catchments is found as 12%.**

CONSTRUCTION OF FLOOD DISCHARGE OF FOUR STREAMS IN BUFFER ZONE

The peak flood discharges of the stream have been calculated by Dicken's formula method:

Dicken's formula

Dicken's formula states that:

$QP = CA^{3/4}$

Where,

Q_P = High flood or peak discharge in cumec

A = Catchment area

C = A constant, taken c = 6 for the study area.

PEAK FLOOD DISCHARGE (QP) IN CUMECS

S. NO.	STREAM	TOTAL CATCHMENT AREA (KM^2)	DICKEN'S	LEAN PERIOD DISCHARGE (CUMEC)
1.	Sai river	194.89	312.96 cumecs	0cumec
2.	Vengadi river	160.80	270.93 cumecs	0cumec
3.	Bhisra-Panchatia nala	63.92	135.63 cumecs	0cumec
4.	Kharod river	329.52	464.04 cumecs	0cumec

The peak flood discharges of the stream have been calculated by Dicken's formula method:

Dicken's formula

Dicken's formula states that: **$QP = CA^{3/4}$**

Where,

Q_P = High flood or peak discharge in cumec

A = Catchment area = 0.12 km^2

C = A constant, taken c = 6 for the study area.

PEAK FLOOD DISCHARGE (Q_P) IN CUMEC	

S. NO.	CATCHMENT	DICKEN'S	LEAN PERIOD DISCHARGE (M^3/S)
1.	Plant stream	1.22 m^3/s	0 m^3/s

❖ **COST FOR NATURAL DRAIN DIVERSION**

- The cost incurred for the Drainage network and Nala diversion will be **44.60 Crores.**
- Cost is consider into the Environmental Management Plan cost.

<table>
<tr>
<td></td>
<td>Status of land acquisition including government and pvt. land as well as permission for landuse change for industrial purpose.</td>
<td>

The Status of land acquisition including Government as well as Private land along with permission for land use change for industrial purpose has been received from Industry Centre.
The type of land involved along with the area bifurcation into Government and private land.

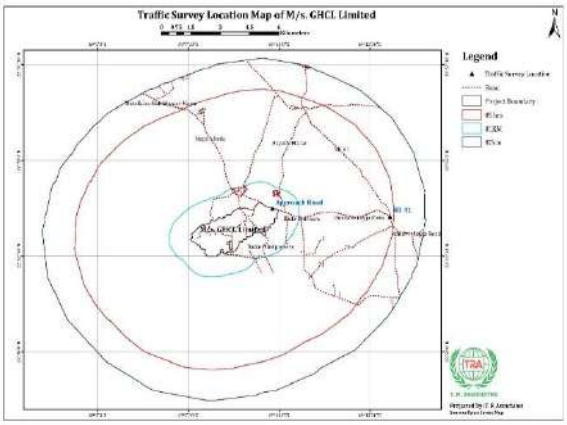
<table>
<tr><th>SR. NO.</th><th>TYPE OF LAND</th><th>AREA (SQ. M.)</th></tr>
<tr><td>1</td><td>Government Land</td><td>10,16,351</td></tr>
<tr><td>2</td><td>Private Land</td><td>48,06,632</td></tr>
<tr><td>3</td><td>Private Land with NA permission</td><td>1,72,473</td></tr>
<tr><td colspan="2">Total</td><td>59,95,456</td></tr>
</table>
M/s. GHCL Limited has applied for Environmental Clearance (EC) for plot area admeasuring <u>54,63,200 sq. mt.</u>
<u>Land acquisition letter is submitted.</u>
</td>
</tr>
<tr>
<td></td>
<td>It was observed that baseline study was conducted during December 2019 – February 2020, which is more than 3 years old.</td>
<td>

It is requested to note that as per OM F.No. IA3-22/10/2022-IA.III [E 177258] dated 08-06-2022 baseline data should not be older than three years at the time of submission of the proposal for the grant of Environmental Clearance (EC).
Project proponent have submitted EC proposal on Parivesh portal dated 30-11-2022.
The baseline period was December 2019 to February 2020 and the baseline data validity was up to December 2022. M/s GHCL informed that baseline data is line with OM dated 8.6.2022 for validity of baseline data, wherein it is mentioned that baseline data used for preparation of EIA/EMP report may be collected at any stage of the EC process or even before the grant of TOR. In this case, they have reconducted 3-month Baseline data from December, 2022 to February, 2023, which is less than 3 years old.

</td>
</tr>
</table>

	As per OM, PP shall conduct fresh 3 months study	➢ However, M/s GHCL had already appointed **T. R. Associates** for conducting the **3-month** Baseline Monitoring in November 2022. ➢ The Baseline study was conducted during the period **December, 2022 to February, 2023 and it is incorporated in Addendum of EIA Report submitted on 1.02.2024.** ➢ **Baseline details is submitted.**
	It was noted that EIA - EMP report is prepared by NEERI, which is not QCI /NABET accredited consultant for soda ash. PP informed that now T R Associate has been hired for the proposed project who is a QCI /NABET accredited consultant for soda ash. The Committee suggested that new consultant shall undertake site visit and verify/check the entire	➢ The authorization letter dated 10.01.2024 for engaging T.R. Associates, a QCI/NABET accredited consultant for the Soda Ash Industry, to verify and check the entire data and the EIA-EMP report prepared by NEERI. Further, M/s T.R. Associates has undertaken site visit and examine the existing EIA-EMP report. ➢ T. R. Associates vide letter dated 30.01.2024 have undertaken the task of visiting and thoroughly checking the entire data of the EIA-EMP report provided by NEERI. ➢ Additionally, it is important to note that T.R. Associates has subsequently prepared an Addendum to the EIA report. .

<table>
<tr><td></td><td>data as well as EIA - EMP report. They should give undertaking that they are satisfied with data and own the data provided in the EIA-EMP report. PP shall also submit authorizatio n letter for new Consultan</td><td></td></tr>
<tr><td></td><td>Revised water balance to be submitted. STP’s treatment process shall include secondary treatment</td><td>Revised water balance is submitted.
Initial processing of domestic wastewater occurs in a Sewage Treatment Plant (STP) with a focus on utilizing treated water for plantation and Greenbelt development in the vicinity.
The wastewater undergoes preliminary treatment involving a Bar Screen Chamber and an Oil & Grease Trap tank to capture extraneous and floating matter effectively.
Subsequently, the sewage is directed to a Collection Tank cum Equalization tank, where it undergoes equalization processes.
The equalized sewage is then pumped for secondary treatment in an Aeration tank and Secondary Clarifier, with the clear supernatant being collected in a holding tank.
Further as polishing treatment the effluent is passed through a two-stage process, involving a Pressure Sand Filter (PSF) and an Activated Carbon Filter (ACF).
Upon completion of the polishing treatment, the treated wastewater undergoes disinfection before being employed for landscaping and gardening purposes.
The biological sludge generated during the treatment process is directed to a sludge drying bed, with the resulting treated sludge utilized as manure in gardening activities
<table><tr><th>SR. NO.</th><th>NAME OF THE UNITS</th><th>NO. OF UNIT</th><th>CAPACITY OF UNIT</th></tr><tr><td>1</td><td>Bar Screen</td><td>1</td><td>10.5 m^3/hr</td></tr></table></td></tr>
</table>

		2	Oil and Grease trap Tank	1	60 KL
		3	Collection Tank cum Equalization tank	1	80 KL
		4	Aeration tank	1	80 KL
		5	Secondary Clarifier	1	40 KL
		6	Holding tank	1	80 KL
		7	Activated Carbon Filter	1	10.5 m^3/hr
		8	Pressure Sand Filter	1	10.5 m^3/hr
		9	Disinfection (Chlorine contact tank)	1	80 KL
(	PP informed that widening of approach road to project site is being carried out. PP shall submit road wideining action plan. Traffic study to be conducted	**TRAFFIC FLOW ANALYSIS** Traffic study was carried out on following roads: 1. **NH41 (old NH-8A)** i.e. Mandvi - Narayan Sarovar, which is 5.5 km (by road) away from project site in East direction (via Bhinsara - Mota Layja road) and 2. The **approach road** (Bada- Bhinsara- Mota Layaja road) to GHCL proposed site. **(Note: Government considered as Coastal Highway.)**  The traffic survey study was conducted for traffic flow on both sides. Studied route is shown in above figure.			

<table>
<tr><td></td><td></td><td>Traffic Count Data existing - NH-41 [Narayan Sarovar to Mandvi is submitted
Traffic Count Data existing - NH-41 [Narayan Sarovar to Mandvi is submitted
Traffic Count Data Existing-Approach Road (Bada- Bhinsara- Mota Layja Road) to M/s. GHCL Ltd is submitted.
Traffic Count Data after proposed project - Approach Road (Bada- Bhinsara- Mota Layja Road) to M/s. GHCL Ltd is is submitted.
PP reported that it can be concluded that even for considering the worst case; there will be minor increase in vehicular load due to the Proposed project.</td></tr>
<tr><td>(</td><td>Air quality modeling for line source shall also be incorporate and cumulative impact of line and point source shall provided</td><td>➢ They have used AERMOD 12.0.0 latest version to perform Air Quality Modeling for Point Source .
➢ The Emission rate of (PM_{10}, SO_2, NOx) by utilization of different fuels is given in below table
<table>
<tr><th>Sr. No</th><th>Fuel</th><th>% Ash</th><th>% Sulphur</th><th>% Nitrogen</th><th>SO_2 Emission rate, g/s</th><th>NOx Emission rate, g/s</th><th>PM_{10} Emission rate, g/s</th></tr>
<tr><td>1</td><td>Coal</td><td>16.08</td><td>0.77</td><td>1.13</td><td>1.94</td><td>69.9</td><td>4.75</td></tr>
<tr><td>2</td><td>Lignite</td><td>20.26</td><td>3.85</td><td>0.39</td><td>14.45</td><td>38.17</td><td>4.92</td></tr>
<tr><td>3</td><td>Pet coke</td><td>0.61</td><td>7</td><td>1.77</td><td>12.16</td><td>74.91</td><td>4.57</td></tr>
</table></td></tr>
</table>

Sr. No.	Process	NH_3 Emission rate, g/s
1	Ammonia Recovery system	1.04
2	Filtration/Calcination Vent	0.52

- The emission rates were calculated considering following efficiencies of Air Pollution Control Measures:

SR. NO.	APCM	Efficiency of APCM (%)
1	Dust Collector	60 %
2	Bag filter	92%
3	Scrubber	95%
4	Desulfurization system and injection of Sodium Bicarbonate	99.7%
5	Electrostatic Precipitator (ESP)	99.99%

The incremental concentration of (PM_{10}, SO_2, NOx,) by utilization of different fuels are given in below Table:

Sr. no.	Fuel	Incremental Concentration of PM_{10} ($\mu g/m^3$)	Incremental Concentration o SO_2 ($\mu g/m^3$)
1	Coal	1.21	0.229
2	Lignite	**1.23**	**1.71**
3	Pet coke	1.19	1.44

- The incremental concentration in case of NH_3 will be 2.39 $\mu g/m^3$.

Considering Worst Case Scenario the cumulative Concentrations of the PM_{10} ($\mu g/m^3$) will be

Sr. No.	Monitoring Location	Distance (km)	Direction	Existing monitored maximum PM_{10} Concentration ($\mu g/m^3$)	Maximum GLC from Point Source ($\mu g/m^3$)	Maximum GLC from Line Source ($\mu g/m^3$)	Total PM_{10} Concentrations ($\mu g/m^3$)
1	Panchotiya*	3.00	SE	81.53	1.23	1.3	84.06
2	Bada	0.34	NW	76.56			79.09
3	Bhinsara	2.28	E	68.99			71.52
4	Bhada*	5.68	SE	83.48			86.01
5	Mota Layja	7.00	NNE	59.73			62.26
6	Padampur	5.25	NNW	68.74			71.27
7	Mapar	5.09	NNW	65.94			68.47
8	Bambhadai	7.11	NW	72.99			75.52
9	Dedhiya	9.97	NNW	58.68			61.21
10	Nana Layja	7.25	ESE	81.98			84.51

- **After considering the worst case scenario the cumulative concentration of PM_{10} remains well within the NAAQS.**
- **After considering the worst case scenario the cumulative concentration of PM_{10} remains well within the NAAQS.**

Sr. No.	Monitoring Location	Distance (km)	Direction	Existing monitored maximum SO_2 Concentration ($\mu g/m^3$)	Predicted SO_2 Concentration ($\mu g/m^3$)	Total SO_2 Concentrations ($\mu g/m^3$)
1	Panchotiya *	3.00	SE	15.6	1.71	17.31
2	Bada	0.34	NW	14.82		16.53
3	Bhinsara	2.28	E	13.68		15.39
4	Bhada*	5.68	SE	16.92		18.63
5	Mota Layja	7.00	NNE	8.25		9.96
6	Padampur	5.25	NNW	12.92		14.63
7	Mapar	5.09	NNW	11.78		13.49
8	Bambhadai	7.11	NW	10.94		12.65
9	Dedhiya	9.97	NNW	9.85		11.56
10	Nana Layja	7.25	ESE	17.38		19.09

- **After considering the worst case scenario the cumulative concentration of SO_2 remains well within the NAAQS.**
- **Considering Worst Case Scenario the cumulative Concentrations of the NO_2 ($\mu g/m^3$) will be:**

Sr. No.	Monitoring Location	Distance (km)	Direction	Existing monitored maximum NO_2 Concentration ($\mu g/m^3$)	Maximum GLC from Point Source ($\mu g/m^3$)	Maximum GLC from Line Source ($\mu g/m^3$)	Total NO_2 Concentrations ($\mu g/m^3$)
1	Panchotiya*	3.00	SE	38.88	9.50	7.59	55.97
2	Bada	0.34	NW	33.67			50.76
3	Bhinsara	2.28	E	31.81			48.9
4	Bhada*	5.68	SE	41.49			58.58
5	Mota Layja	7.00	NNE	22.71			39.8
6	Padampur	5.25	NNW	30.38			47.47
7	Mapar	5.09	NNW	33.62			50.71
8	Bambhadai	7.11	NW	28.45			45.54
9	Dedhiya	9.97	NNW	25.65			42.74
10	Nana Layja	7.25	ESE	36.43			53.52

After considering the worst case scenario the cumulative concentration of NO_2 remains well within the NAAQS

- In addition, Baseline concentration of **NH_3** found at all the locations are **B.D.L(D. L - 21)**, however **incremental concentration is found 2.39 $\mu g/m^3$** by using AERMOD software, considering worst case scenario cumulative ammonia concentration is **well within the stipulated norms of NAAQS, 2009.**

		➢ Baseline concentration of **CO** found at all the locations are **B.D.L(D. L - 0.5 mg/m^3),** however Maximum GLC from Line Source is found **4.81 µg/m^3** by using AERMOD software, considering worst case scenario cumulative CO concentration is **well within the stipulated norms of NAAQS, 2009.** ➢ Baseline concentration of **HC** (Benzene and Benzo alpha Pyrene) found at all the locations are **B.D.L(D. L - 1 mg/m^3 of Benzene and D. L - 1 ng/m^3 of Benzo alpha Pyrene),** however Maximum GLC from Line Source is found **0.31 µg/m^3** by using AERMOD software, considering worst case scenario cumulative HC concentration is **well within the stipulated norms of NAAQS, 2009.**
(	As per point source air quality modeling, incremental levels of SO2 and NOx have been estimated to be 10.98 µg/m^3 and 11.37 µg/m^3, which are in higher side. PP shall reduce the incremental values after taking suitable pollution control measures	PP reported the same reply as mentioned in the above row.
(	Villages are located 500-600 m away	➢ The **nearest village Janakpur is located at 0.55 km** and **project site village Bada is at 0.58 km** from the proposed project site boundary.

	from the project site. PP shall elaborate various measures to be taken for the surrounding villages	➢ Moreover, the unit will install **adequate Air pollution control equipment** to abate the air pollution arising from the manufacturing unit. ➢ Also, the effluent generating from the unit will be properly disposed into deep sea which will not impose any risk to soil/land/ground water pollution. ➢ The Solid/Hazardous waste will be efficiently collected, stored and disposed to TSDF/CHWIF site or sold to registered recyclers or reused within premises. ➢ Additionally, the **unit will develop dense greenbelt all around the periphery of the project site.** ➢ The unit will provide **acoustic hood** at highly noise generated equipment's as well as **acoustic building** to abate the noise pollution generating from the process and machineries. ➢ The unit will also carry out various CSR activities for the upliftment of the surrounding villagers
(	Details representations received by SPCB/MoEF&CC agains the project, if any. Action plan to address the issues raised in writted/represntations received by SPCB /MoEF&CC	➢ The Public Hearing was scheduled to be held on 16-04-2022 at 11:00 Hrs, Venue: Project Site, Survey no. 432, Village: Bada, Taluka: Mandvi, District: Kutch, Public hearing was then time being postponed due to unavoidable circumstances. After that public hearing was completed on **17-10-2022 at 11.00 Hrs.** Venue: Project Site, Survey no. 432, Village: Bada, Taluka: Mandvi, District: Kutch, Gujarat. Which was presided over by Shri Chetan Mishan (GAS), Sub Divisional Magistrate & Deputy Collector, Mundra- Kutch. ➢ The public hearing was attended by **106 people.** ➢ Total 1154 written questions (representation received by GPCB) and 1066 verbal questions were asked by people in public hearing that we have summarized in 94 Concerns and it will further identified in 26 different head to address Public Hearing Action Plan. ➢ **The Action Plan Addressing the Written & Verbal Questions Received During Public Hearing is Submitted**
(	Details of issues raised by local fishermen if any. Action plan to address the said issues.	The issues raised by local fishermen have been addressed in the Public Hearing Action Plan **CONCERN IN PH** | **ACTION PLAN** | **FUND REQUIRED** | **RESPONSIBILITY**

		Regarding details of Pagadia fisherman not mentioned and Marine EIA is misinterpreted Regarding disturbance to fishes due to presence of pipeline Regarding status of fishing near Bada and Mandvi Related to number of fishermen not incorporated in study Related to presence of dead fishes not reported in study, fishing carried out for commercial purpose Regarding presence of fisherman in study area Regarding the impact due to project activities on fishes Regarding chances of reduction in number of fishes	• Other than construction phase, there will be no any impact on Pagadiya fisher men. As shore line will remain undisturbed. • Details of Fishery and fishermen including their family and population are given in **Chapter-3 of Marine EIA report** is prepared by CSIR - NIO. • It is mentioned in marine EIA report that no large-scale commercial fishing operation prevail in the study area except for minor shore based and Gill net operations.	• Biodiversity management plan to be implemented in the project area during construction phase and operation phase which is included in **EMP cost.** • For periodic monitoring of the marine area environment during project Construction phase, a provision of **Rs. 0.5 crore** to earmarked. • For operation phase**, Rs. 0.5 crore** per year to be kept provision for the monitoring. • GHCL Ltd will spend approx. **Rs.**	**GHCL Limited**

			• Unit will also promote development Initiatives for Fishing Communities including Pagadiya under CER activities. For the Development Initiatives for Fishing Communities Unit will provide **1 Crore Rupees.**	**1.0 crore** towards Development Initiatives for Fishing Communities including Pagadiya under CER activities.	
	Copy of stage I forest Clearance and SCZMA recommendations	Copy of stage I forest Clearance and stage II and SCZMA recommendations has been obtained vide letter ENV/10/2021/184/T-cell dated 26.12.2023.			
	Commitment for Disaster Management Plan in case of Tsunami, earthquake and cyclone to be prepared and submitted to the respective authority.	• Detailed Disaster Management Plan has been submitted. Additional Studies of the Environment Impact Assessment Report prepared by CSIR-NEERI. • Disaster Management Plan of Tsunami, Earthquake and Cyclone has been prepared and will be submitted to Director Industrial Safety and Health (DISH) after getting EC from the Concerned authority. Report is also submitted to MOEF&CC. • Disaster management plan is submitted.			

22. **Deliberations by the EAC:**

After detailed deliberations, EAC desired the following additional information:

(i) The Committee was of the view that PP shall compare the baseline data collected during December -February 2020 and data collected during December 2022 -February 2023. Accordingly, PP shall also carry out trend analysis of previous baseline data by conducting latest additional one-month baseline data.

(ii) The Committee noted that several representations have been received from various level of public raising several issues. The Committee was of the view that representations shall be forwarded to the PP for their response. The Committee also recommended that in the next meeting they will go through the video of proceedings of public hearing. The Committee will go through the response of PP then decide further course of action accordingly.

Accordingly, proposal was deferred for want of above additional information. Above all additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

List of the Expert Appraisal Committee (Industry-3) members participated during Video Conferencing (VC) meeting held on 06.02.2024

S. No	Name of Member	Designation
1.	**Prof. (Dr.) A.B. Pandit**	Chairman
2.	**Dr. Suresh Panwar**	Member
3.	**Dr. (ER.) Dibakar Swain**	Member
4.	**Shri Dinabandhu Gouda**	Member
5.	**Dr. Kishore Malviya**	Member
6.	**Dr. P. Jagannadha Rao**	Member
7.	**Shri Dinesh Runiwal,**	Member
8.	**Prof. (Dr.) Suneet Dwivedi**	Member
9.	**A N Singh**	Member Secretary
MOEFCC		
1.	**Dr. Kanchan Puri**	Scientist-B
2.	**Dr. S. Pradeep kumar**	Scientist-B

***

MOM approved by

(Prof. Aniruddha B. Pandit)
Chairman
***

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)
*****

Dated: 6.4.2024

MINUTES OF THE 78th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON 30thAPRIL, 2024

Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003 through Video Conferencing (VC)

Time: 10:30 AM onwards

(i) Opening Remarks by the Chairman

Prof. (Dr.) A.B. Pandit, Chairman welcomed the Committee members and opened the EAC meeting for further deliberations.

(ii) Details of Agenda items by the Member Secretary

The Member Secretary then apprised the Committee about the details of Agenda items to be discussed during this Expert Appraisal Committee (EAC) meeting.

Agenda No. 78.11

Expansion of Specialty Chemicals in existing Vinyl Sulphone Ester and Blending & Mixing manufacturing plant located at Plot No.: 28, Phase No.; 1, GIDC estate Vatva, Tal.: Daskroi, Dist.: Ahmedabad, Gujarat by M/s. Matangi Industries Unit-1- Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/460280/2024, F. No IA-J-11011/60/2023-IA-II(I)]

1. The proposal is for Environmental Clearance to the Expansion of Specialty Chemicals in existing Vinyl Sulphone Ester and Blending & Mixing manufacturing plant located at Plot No.: 28, Phase No.; 1, GIDC estate Vatva, Tal.: Daskroi, Dist.: Ahmedabad, Gujarat by M/s. Matangi Industries Unit-1.

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) but due to applicability

of general condition i.e. project site is located in a critically polluted area, the proposal is treated as Category A and the proposal requires appraisal at central level by the sectoral EAC in the MOEF&CC.

3. The ToR was issued by the SEIAA, vide letter no. SIA/GJ/247612/2021 dated 22.12.2021. The PP applied for the Environment Clearance in the Common Application Form and submitted the EIA/EMP Report and other documents. The PP in the CAF reported that it is an **Expansion case. The proposal was placed in 77th EAC Meeting held on 14th March, 2024 wherein EAC deferred the proposal for want of requisite information now the proposal is placed in 78th EAC meeting held on 30.4.2024 wherein the PP and an accredited Consultant, Envicraft Environmental Services [NABET accreditation till NABET/EIA/22-24/SA 0210 valid up to 4th November, 2024**], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that total area of 7128.00 Sq. m land will be used for Manufacturing Activities will be used for the proposed expansion and no R& R is involved in the Project. The details of various products are as follows:

Sr. No.	Name of the Products	CAS / SI no.	Quantity TPM			End-use of the products *
			Existing	Proposed	Total	
Ethoxylate			-	1500	1500	Foaming Agents, Emulsifiers, Wetting agents, Dispersants, Detergents, Cohesive Agents
1	Card Phenol Ethoxylate	37330-39-5				
2	Nonyl Phenol Ethoxylate	9016-45-9				
3	Octyl Phenol Ethoxylate	9002 -93 – 1				
4	Styrenated Phenol Ethoxylate	61788-44-1				
5	Tri Methyl Propane Ethoxylate	50586-59-9				
6	Coco amine Ethoxylate	61791-14-8				Emulsifiers, Wetting agents, Dispersants, Polymer additives, Antistatic agents
7	Oleyl Amine Ethoxylate	26635-93-8				
8	Stearyl Amine Ethoxylate	26635-92-7				
9	Tallow Amine Ethoxylate	61791-26-2				
10	Tri Ethanol Amine Ethoxylate	73904-64-0				

11	Coconut Fatty Acid Ethoxylate	61791-29-5				Foaming Agents, Emulsifiers, Wetting agents, Dispersants, Detergents, Cohesive Agents
12	Lauric Acid Ethoxylate	9004-81-3				
13	Oleic Acid Ethoxylate	9006-28-4				
14	Stearic Acid Ethoxylate	9009-90-9				
15	C11 Alcohol Ethoxylate	34398-01-1				
16	C12-C13 Branched Alcohol Ethoxylate	66455-14-9				
17	C12-C15 Alcohol Ethoxylate	68131-39-5				
18	C18 Alcohol Ethoxylate	9005-00-9				
19	C9-C11 Alcohol Ethoxylate	34398-01-1				
20	Ceto Stearyl Alcohol Ethoxylate	68439-49-6				
21	Cetyl alcohol Ethoxylate	9004-95-9				
22	Decyl Alcohol Ethoxylate	26183-52-8				
23	Lauryl Alcohol Ethoxylate	9002-92-0				
24	Oleyl Cetyl Alcohol Ethoxylate	9004-98-2				
25	Stearyl Alcohol Ethoxylate	9005-00-9				
26	Tri Decyl Alcohol Ethoxylate	24938-91-8				
27	Castor Oil Ethoxylate	61791-12-6				Foaming Agents, Emulsifiers, Wetting agents, Dispersants
28	Hydrogenated Castor Oil Ethoxylate	61788-85-0				
29	N,N-Dihydroxyethyl-p-toluidine	878391-30-1				
30	Para Toluidine Ethoxylate	103671-44-9				
31	Polyethylene Glycol Ethoxylate	25322-68-3				Textile, Pharmaceutical, Emulsion Polymerization,

						Paint, Detergent, Automotive, Agrochemical
32	Sorbitan Ester Ethoxylate	9005-65-6				Detergent, Solubilizer, Foaming Agent, Dispersant & Emulsifier
Propoxylate						
33	Para Toluidine Propoxylate	38668-48-3				foaming agents, detergents, and wetting agents
EO PO Block Copolymer						
34	EO PO Block Copolymer	9003-11-6				Deforming Agents, Emulsifiers, Dispersants
Ester						
35	Cetyl Ricinoleate	10401-55-5				Emulsifiers, Wetting agents, Lubrication Agents, Dispersants
36	Sodium 2-Ethyl Hexyl Sulfate	126-92-1				
37	Tri Styrenated Phenol	61788-44-1				
38	Polyethylene Glycol Glyceryl Cocoate	68201-46-7				
39	Butyl Poly Oxy Propylene Glycol	9003-13-8				organic solvent and diluent
40	Polypropylene Glycol	25322-69-4				
41	Poly Ethylene Glycol Distearate	627-83-8				Surfactant, softener Agent
42	Polyethylene Glycol Stearate	9004-99-3				
43	Polyethylene Glycol Mono Oleate	9004-96-0				
44	Polyethylene Glycol Di Oleate	9005-07-6				
Sulphates			-	100	100	
45	Nonyl Phenol Ethoxylate Sulphate (NPS)	9014-90-8				Surfactants, Thickener, Foaming Agent
46	Octyl Phenol Ethoxylate Sulphate (OPS)	140-66-9				Additives
47	Sulphuricated Castor Oil	8002-33-3				Synthetic Detergent
48	Tri Decyl Alcohol Ethoxylate Sulphate	68131-39-5				Emulsifiers, Wetting agents, Dispersants
Phosphate Ester			-	100	100	

49	Nonyl Phenol Ethoxylate Phosphate ester	68909-65-9				Foaming Agents, Emulsifiers, Wetting agents, Dispersants
50	Styrenated Phenol Ethoxylate Phosphate Ester	68412-53-3				
51	Lauryl Alcohol Ethoxylate Phosphate Ester	9046-01-9				
52	Tri Decyl Alcohol Ethoxylate Phosphate Ester	105362-40-1				
Intermediates						
53	Vinyl Sulphone Ester	2494-89-5	100	100	100	Specialty Chemicals
54	Sulpho Para Vinyl Sulphone	42986-22-1	-			
55	Vinyl Sulphone ester para cresidine base	21635-69-8	-			
Sulphonic group						
56	Para Cresidine Ortho Sulphonic Acid	6471-78-9	-	75	75	Pharmaceutical, food processing
Speciality Chemicals						
57	4-chloro-2-hydroxybenzthiazole	39205-62-4	-	10	10	Pharmaceutical, food processing
Distillation Based Products						
58	N-Methyl-N-Hydroxyethyl-P-Toluidine	2842-44-6	-	30	30	Pharmaceutical, and chemical intermediate
Blending Products*						
59	Cleaning Agent	Mixture	50	-	50	--
60	Weting Agent	Mixture	50	-	50	
61	Washing Agent	Mixture	50	-	50	
62	Wetting & Dispersing Agent	Mixture	50	-	50	
	Total		300 TPM	1815 TPM	2115 TPM	

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and the following directions were issued under E(P) Act/Air Act/Water Act:

S. No.	SCN No. & date	Reply date	Reason	Reply
1	SCN-682731 dated: 09.09.2022	07.02.2023	At the time of inspection fugitive emission is observed during sulphonation process in manufacturing of Vinyl Sulphone.	There was a minor leakage in flange point due to which fugitive emission was observed during Sulphonation process in manufacturing of Vinyl Sulphone at the time of inspection. They immediately made corrective measures by replacing the joints & valves. There was No leakage observed from any of the points after corrective measures were taken. They are operating APCM regularly & adequately.
2	SCN-750002 dated: 05.08.2023	21.08.2023	Analysis report of sample collected from final outlet of ETP shows Sulphide 3.09 mg/L exceeding the norms prescribed in CCA.	They have 3 stage treatment plant for processing Effluent i.e Primary, Secondary and Tertairy. As soon as the deviation in the Sulphide content was found out, we immediately started taking overall system check and found out that there was chocking of sludge in aeration system in the 2nd stage of ETP System. Hence, they immediately started complete maintenance and clear out chocking & removing sludge from aeration tank. They have also made SOP for regular check and maintenance of our entire ETP system. We have also started following that SOP in our system since then. They have also conducted subsequent sampling and analysis, which have demonstrated that the effluent quality now fully complied with the Prescribed guidelines provided in the Consent.

6. The PP reported that Unit has obtained Consolidated Consent and Authorization (CCA) from Gujarat Pollution Control Board (GPCB), Gandhinagar vide Consent Order No.: 3866 Dated: 04/09/2004 for product Vinyl Sulphone Ester. Since the unit has obtained CC&A/CTO before EIA Notifications, 2006, Environment Clearance (EC) was not applicable.

7. The PP reported that According to *point no iv of Clause B of OM dated 8.6.2022* Industries LLP (Unit-1) has obtained renewal of CTO vide order no. AWH-127798 dated on *21/07/2023*, valid up to 31/03/2028 which is not older than one year. Self-certified compliance report of the existing CTO has bren submitted.

8. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, And Wildlife Corridors etc. within 10 km distance from the project site. Sabarmati River is flowing at a distance of 9.91 km in direction of W by N. There is one Schedule-I species i.e. *Pavo cristatus* and Conservation plan for Schedule-I species is prepared.

9. The PP reported that Ambient air quality monitoring was carried out at 8 locations during December-2021 to February-2022 and the baseline data indicates the ranges of concentrations as: PM10 (67.90-89.09 µg/m3), PM2.5 (26.10-49.40 µg/m^3), SO2 (12.90-28.30 µg/m^3) and NO2 (18.30-35.70µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.22629 µg/m^3, 0.46271 µg/m^3, 0.15701 µg/m^3 and 0.00083 µg/m^3 with respect to PM_{10}, SOx, NOx and HCl.

10. The PP reported that the total water requirement after expansion is 246.48 KLD, but due to Recycle/Reuse of 74.15 KLD, fresh water requirement is 172.33 KLD which will be met from Vatva Industrial Estate Infrastructure Development Ltd. of Vatva Industries Association 17.15 KLD Process Low COD Effluent combine with washing @ 47.85 KLD treated in Primary ETP &subjected to Secondary ETP along with Domestic Wastewater @7.00 KLD and Treated Effluent (63.5 KLD) sent to CETP of The Green Environmental Services Co-Op. Society. Ltd. & 30 KLD High COD Effluent will be sent to The Green Environment Services Co-Op. Society Ltd. and/or Society for clean Earth and/or Chhatral Environment Management System Pvt. Ltd. and/or In-house Spray Dryer. 4.8 KLD Boiler & Cooling Blowdown are reused in Scrubber after Neutralization. Scrubbing Solution (30% HCl) shall be sent to End User or to spray drying facility after In-house Neutralization for co processing and/or in-house spray drying.

11. Power requirement after expansion will be 1500 KW and existing 600 KW will be met from Torrent Power Limited. Unit has Standby DG sets of 125 KVA capacity. Stack (height) will be provided as per CPCB norms to the proposed DG sets.

12. Existing unit has IBR Boiler of 2.0 TPH; Thermopack Boiler of 6 Lac KCal/Hr., IBR Boiler 1.0 TPH, Hot Air Generator 30 Lac KCal/Hr. Additionally Thermopack Boiler 4 Lac KCal/Hr. will be installed. Multi cyclone separator/ bag filter with a stack/Scrubber of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 120 mg/Nm^3 for the proposed boilers.

13. **Details of fuel**: Existing: 2400 SCM/Day and Proposed: 11478 SCM/Day

14. **Details of process emissions generation and its management:**

Sr. No.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel	Type of emissions i.e., Air Pollutants	Air Pollution Control Measures (APCM)
1	IBR Boiler (2.0 TPH)	30	Natural Gas	72000 SCM/Month	PM < 150 mg/Nm3 SO2 < 100 ppm NOX < 50 ppm	--
2	Thermopack Boiler (6 Lac KCal/Hr.)	12	Natural Gas			--
3	Boiler (1 TPH)	11	Briquette solid fuel	850 Kg/Hr.		Multi Dust collector
4	Hot Air generator (30 Lac KCal/Hr.)	30	Briquette solid fuel			Multi Dust collector

Total After Expansion

Sr. No.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel	Type of emissions i.e., Air Pollutants	Air Pollution Control Measures (APCM)
1	IBR Boiler (2.0 TPH) (Existing)	32	Natural Gas	4520 SCM/Day	PM < 120 mg/Nm3 SO2 < 80 ppm NOX < 40 ppm	Adequate Stack height
2	Thermopack Boiler (6 Lac KCal/Hr.) (Existing)		Natural Gas	2300 SCM/Day		Adequate Stack height
3	IBR Boiler (1.0 TPH) (Existing)	30	Natural Gas OR Briquette solid fuel	2260 SCM/Day OR 5.0 MTD		MCS + Bag Filter + Scrubber & Adequate Stack height
4	Thermopack Boiler (4 Lac KCal/Hr.) (Additional)		Natural Gas OR Briquette solid fuel	1530 SCM/Day OR 3.0 MTD		MCS + Bag Filter + Scrubber & Adequate Stack height
5	Hot Air Generator (30 Lac KCal/Hr.) (Existing)	30	Natural Gas OR Briquette solid fuel	11480 SCM/Day OR 23.0 MTD		MCS + Bag Filter + Scrubber & Adequate Stack height
6	DG Set (125 KVA) (Standby)	11	Diesel	15 litre/hr.		Adequate Stack height

NOTE: Working Hours of Existing Utilities Will Be increased. Resulted to increase in Fuel Consumption

Existing as per CCA

Sr. No.	Specific Source of emission (Name of the Product & Process)	Type of emissions i.e., Air Pollutants (SO2, HCl, Cl etc.)	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1	Chlorosulphonator	SO2: 40 mg/Nm3	18/0.2	Water Scrubber & Packed Column Alkali Scrubber
2	Drawing vessel	HCl: 20 mg/Nm3	18/0.2	Venturi Scrubber + Two Stage water Scrubber & Single Stage Alkali Scrubber
3	Spray Dryer (4000Liter/Hr)	PM: 150 mg/Nm3	11/0.2	Two stage scrubbing system

S. No.	Emission (Name of the Product & Process)	i.e., Air Pollutants (SO2, HCl, Cl etc.)	Height (meter)	(APCM)
1	Chlorosulphonator	SO2: 32 mg/Nm3	18/0.2	Water Scrubber & Packed Column Alkali Scrubber
2	Drawing vessel	HCl: 16 mg/Nm3	18/0.2	Venturi Scrubber + Two Stage water Scrubber & Single Stage Alkali Scrubber
3	Spray Dryer (4000 Liter/Hr)	PM: 120 mg/Nm3	30/0.2	Two stage scrubbing system

15. **Details of Solid Waste/ Hazardous Waste Generation and its Management**:

Sr. No.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)			Management of HW
				Existing	Proposed	Total	
1	Gypsum sludge	ETP & Spray Dryer	35.3/SCH-I	5376	5179	10555	Collection, Storage, Transportation and disposal to authorized TSDF or Cement Industries for co processing.

Sr. No.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)			Management of HW
				Existing	Proposed	Total	
2	Process Waste (Inorganic)	Mfg. Process	28.1/SCH-I	14.4	-	*14.4	Collection, Storage, Transportation, disposal at TSDF site.
3	Used Oil/ Spent Oil	Maintenance Activities	5.1/SCH-I	10 lit.	40 lit.	50 lit.	Collection, Storage, Transportation; reuse as lubricant or by selling to Authorized re- refiners.
4	Discarded Containers/Barrels/Liners contaminated with hazardous Wastes/chemical	Raw Material Supplier	33.1/SCH-I	14400 Nos.	1712 MT (85600 Nos.)	2000MT (100000 Nos.)	Collection, Storage, Transportation. Disposal by Selling to Authorized recycler.
5	Spent Sulfuric Acid	Mfg. Process	15/SCH-II-B	6360	5958	*12318	Collection, Storage, Transportation and disposal to M/s. Novel Spent Acid Management, Vatva and/or M/s. Shree Cement Ltd and/or Send to Cement Industries

Sr. No.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)			Management of HW
				Existing	Proposed	Total	
							after converting in to gypsum by neutralizing.
6	Scrubbing Solution25-30% HCl (Spent HCl)	Chlorination	26.1/SCH-I	306	2500	2806	Collection, Storage, Transportation and disposal to Rule – 9 users and/or to spray drying facility after In-house Neutralization for co processing and/or in-house spray drying.
7	Sulphanilic Acid	Mfg. Process		420	-420	*0	-
8	Scrubbing Solution 18-20% NaHSO3	Sulphonation		182.5	-	182.5	Collection, Storage & Reuse within premises. (In the Mfg. Vinyl Sulphone Para Cresidine Base- 252 KL/Annum)

Non Hazardous waste

Sr. No.	Type/Name of Hazardous waste	Applicable rules	Specific Source of generation (Name of the Activity, Product etc.)	Quantity (MT/Annum)			Management
				Existing	Proposed	Total	
1	Fly ash	Fly ash Notification, 1999 & its subsequent Amendments	Briquette solid fuel	-	1200	1200	Collection, storage, transportation & send to Brick manufacturer OR farmer for agricultural purposes.
	E--WASTE	The e- waste (Management) Rules, 2016 & its subsequent Amendments.	Used Electric appliances	-	12 nos	12 nos	Collection, storage, transportation & send to manufacturer or registered refurbisher or recycler.
	Plastic waste	The Plastic Waste Management (Amendment) Rules, 2022	HDPE Materials	-	2.50	2.50	Collection, storage, transportation & sell to Plastic Waste Processor.
	Paper & cardboard waste	-	Regular Utility	-	0.024	0.024	Collection, storage, transportation & sell to recyclers.

Fly ash generated due to usage of coal in the proposed project shall be handled and disposed as per the following steps- The quantity of fly ash from the flue gases of the different zones viz furnace, bank tubes , Seconomizer & bag filters will be collected and conveyed to common bunker by Dense Phase conveying system;The fly ash from the common bunker will be conveyed to storage silo. The whole system is totally enclosed and no emission will be generated; Bag filter will be provided to the common silo having adequate

capacity (~135 CUM); The fly ash will be given to cement manufacturer, brick manufacturing unit and for road construction.

16. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ Rs.258.17 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 138.18 Lakhs per annum per Annum. Industry proposes to allocate ₹ 0.10 Crore towards CER.

17. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment officials for the functioning of EMC.

18. The PP reported that the Public hearing is exempted as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018 as the project site is located within GIDC Vatva which is declared as notified industrial area vide letter dated 5.2.1986.

19. Industry has already will develop greenbelt total 40.0% in that, an area of 2.11 % i.e., 150.00 m^2 within premises, 4.91% opposite of company gate & 32.98 % i.e. 2350.81 Sq. m outside company premises of total area of the project.

20. The PP submitted the Disaster and Onsite and Offsite Emergency Plans in the EIA report. Total Employment will be 121 persons as direct & 75 persons indirect after expansion.

21. The proposal was earlier considered in the 77th EAC meeting on 14th March, 2024 wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP on 1.4.2024, which is as follows:

S. No.	Queries Raised by EAC	Reply by PP
(i)	PP has not submitted ATR on SCN and copy of revocation order of GPCB for the same	PP reported that Industry had received 2 SCN from SPCB. Unit has submitted replies for both the SCN to SPCB. After that Unit has obtained CC&A Amendment as well on dated 26.12.2023 Screenshots of SPCB XGN regarding legals, Gen letters, closure Revocation has been submitted.

22. **Deliberations by the EAC:**

During deliberations, EAC discussed the following issues:

PP submitted pointwise action plan for Compliance of Mechanism for Environment Management of critically & Severely polluted Areas & consideration of Activities/projects in such areas in compliance to Hon'ble NGT order dated 23/08/2019 in the matter of O.A. No 1038/2018:

<table>
<tr><th>Environment</th><th>Mitigation Measures</th><th>Compliance</th></tr>
<tr><td rowspan="3">Air</td><td colspan="2">Stipulations of conditions such as:</td></tr>
<tr><td>i. Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants.</td><td><u>Total Proposed after Expansion:</u>
– After proposed expansion as well, unit has decided to give priority to utilize Natural Gas is provided with Briquette as an alternative. Thus, Emission, levels will be within the standard as per CEPI guidelines i.e., for PM: 120 mg/m3, SO2: 80 mg/m3 and NOx: 40 mg/m3.
– Unit has proposed to provide necessary Air Pollution Control Devices i.e., Adequate stack height already provided for natural gas based existing Boiler & Thermopack boiler. MCS + Bag Filter + Water Scrubber & Packed Column Alkali Scrubber for process gas emission of SO2, Venturi Scrubber proposed for Boiler, Thermopack Boiler & Hot Air generator with adequate stack height.
– Water Scrubber & Packed Column Alkali Scrubber for process gas emission from Chlorosulphonator. Venturi Scrubber + Two Stage water Scrubber & Single Stage Alkali Scrubber process gas emission from Drawing vessel along with 18 m stack height and two stage scrubbing system for process gas emission of PM for spry dryer along with 30 m stack height.</td></tr>
<tr><td colspan="2">Flue Gas Emission
<table>
<tr><th>Sr. No.</th><th>Source of emission With Capacity</th><th>Stack Height (meter)</th><th>Type of Fuel</th><th>Quantity of Fuel</th><th>Type of emissions i.e., Air Pollutants</th><th>Air Pollution Control Measures (APCM)</th></tr>
</table></td></tr>
</table>

1	IBR Boiler (2.0 TPH) (Existing)	32	Natural Gas	4520 SCM/Day	PM < 120 mg/Nm3 SO2 < 80 ppm NOX < 40 ppm	Adequate Stack height
2	Thermopack Boiler (6 Lac KCal/Hr.) (Existing)		Natural Gas	2300 SCM/Day		Adequate Stack height
3	IBR Boiler (1.0 TPH) (Existing)	30	Natural Gas **OR** Briquette solid fuel	2260 SCM/Day OR 5.0 MTD		MCS + Bag Filter + Scrubber & Adequate Stack height
4	Thermopack Boiler (4 Lac KCal/Hr.) (Additional)		Natural Gas **OR** Briquette solid fuel	1530 SCM/Day OR 3.0 MTD		MCS + Bag Filter + Scrubber & Adequate Stack height
5	Hot Air Generator (30 Lac KCal/Hr.) (Existing)	30	Natural Gas **OR** Briquette solid fuel	11480 SCM/Day OR 23.0 MTD		MCS + Bag Filter + Scrubber & Adequate Stack height
6	DG Set (125 KVA) (Standby)	11	Diesel	15 liter/hr.		Adequate Stack height

Process Gas Emission

Sr. No.	Specific Source of emission (Name of the Product & Process)	Type of emissions i.e., Air Pollutants (SO2, HCl, Cl etc.)	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1	Chlorosulphonator	SO_2: 32 mg/Nm3	18/0.2	Water Scrubber & Packed Column Alkali Scrubber
2	Drawing vessel	HCl: 16 mg/Nm3	18/0.2	Venturi Scrubber + Two Stage water Scrubber & Single Stage Alkali Scrubber
3	Spray Dryer (4000 Liter/Hr)	PM: 120 mg/Nm3	30/0.2	Two stage scrubbing system

Achieved air pollutants limit using appropriate Air Pollution Control Measures (APCM)

Sr. no.	Air Pollution Control Measures (APCM)	Technological advance	Efficiency	Permissible limits	*Stringent limit of Air Pollutants after using APCM
1	Multi cyclone separator	- Velocity for high separation efficiency.	96-98 %	PM < 150 mg/Nm3	PM < 120 mg/Nm3

		- Pressure drops for separation efficiency & energy efficiency. - Design (Size of Particles)		SO2 < 100 ppm NOX < 50 ppm	SO2 < 80 ppm NOX < 40 ppm
2	Bag Filter	- Filter media - Temperature - Air-to-cloth ratios - Design (Size of Particles)			
3	Water Scrubber	- Design (Size of droplets) - Average Flow requirement. - Range of liquid to gas absorption ration. - Concentration of Scrubbing media			

*__NOTE__: Maximum operational efficiency achieved through Advance technology met in processes and decreasing the emission limit of Air Pollutants.

Post Project Monitoring:

Additionally, unit has proposed to carry out post project environmental monitoring on regular basis for flue gas emission and process gas emissions through third party NABL/MoEF&CC approved laboratory.

ii. CEMS may be installed in all large/ medium red category industries (air polluting) and concerned to SPCB and CPCB server.	– Unit has fall in red category Industries. – Unit has Proposed to natural gas fired OR biocoal fired IBR Boiler (1.0 TPH), Thermopack Boiler(4 Lac KCal/Hr.), Hot Air Generator (30 Lac KCal/Hr.). – Unit has proposed CEMS (Continuous Emission Monitoring System) for air emission and Regular data reflecting the online monitoring results on the company's server, which can be assessable by the SPCB RO on real time basis. – As well as display shall be provided on front gate of the unit providing continuous data of emissions.
iii. Effective fugitive emission control measures should be imposed in the process,	**Fugitive Emission Details with its Mitigation Measures:** **Transportation System:** — Airborne dust at all transfers operations/ points will be controlled either by spraying water or providing enclosures. — Raw materials loading and unloading will be done in covered area with proper storage.

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<td>transportation, packing etc.</td>
<td>
Process System
— Manual handling of various chemical is/will be avoided. Care will be taken to store construction material properly to prevent fugitive emissions, if any. Provision of water sprinkler to control air borne dust.
— Internal roads are concreted or paved to reduce fugitive emission during vehicular movement. Greenbelt being done/will be proposed within premises to capture the fugitive emission.
— Regular maintenance of valves, pumps, flanges, joints and other equipment is/will be done to prevent leakages and thus minimizing the fugitive emissions of VOCs.
— Entire process is/will be carried out in the closed reactors with proper maintenance of pressure and temperature. Periodic monitoring of work area will be carried out to check the fugitive emission. Breather valves will be provided.
— To eliminate chances of leakages from glands of pumps, mechanical seal is/will be provided at all pumps. Close feeding system is/will be provided for centrifuges. Centrifuge and filtrate tank vents is/will be connected to vent chillers.
— Minimum number of flanges, joints and valves in pipelines.
— Periodic monitoring of work area is/will be carried out to check the fugitive emission as per the norms of Gujarat Factory Rules.
Packing System
— Enclosures to chemical storage area, collection of emission from loading of raw materials in particular through hoods and ducts by induced draft, and control by scrubber / dust collector to be ensured. Adequate ventilation is/will be provided.

All the Fugitive emission mitigation measures currently being done and will be continued after expansion.
LDAR Proposed:
<table>
<tr><th>Sr. No.</th><th>Component</th><th>Frequency of monitoring</th><th>Repair preventive maintenance schedule</th></tr>
<tr><td>1.</td><td>Valves / Flanges</td><td>Quarterly (semi-annual after two</td><td></td></tr>
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				consecutive period with < 2% leaks and annual after 5 periods with < 2% leaks)	Repair shall be started within 5 working days and shall be completed within 15 working days after detection of leak.
		2.	Pump Seal	Quarterly	
		3.	Compressor Seals	Quarterly	
		4.	Pressure Relief Devices	Quarterly	
		5.	Pressure Relief Devices (After Venting)	Within 24 hrs.	
		6.	Process Drains	Annually	Repair shall be started within 5 working days and shall be completed within 15 working days after detection of leak.
		7.	Components That Are Difficult to Monitor	Annually	
		8.	Pump Seals with Visible Liquid Dripping	Weekly	On immediate basis
		9.	Any Component with Visible Leaks	Weekly	On immediate basis
		10.	Any Component After Repair / Replacement	Within a week	-
		The Following methodology to be adopted during LDAR study: – Identify the Chemical streams that must be monitored. – Types of components (pumps, valves, connectors, etc.) to be monitored – Frequency of monitoring. – Actions to be taken if a leak is detected. – Length of time in which an attempt to repair the leak must be performed. – Actions that must be taken if a leak cannot be repaired within guidelines. – Record-keeping and reporting requirements.			
	iv. Transportation materials by rail/conveyer belt, wherever feasible.	Raw materials and finished goods will be transported to/from the premises through the road network considering distance of the supplier. It is proposed to utilize local suppliers for the utilization of regular raw materials. It is estimated that total 8 trucks/day will be required for movement of raw materials, finished goods and Hazardous Waste. This is considering worst case scenario of			

<table>
<tr><td></td><td></td><td>complete operation. However, transportation measures will be followed during this activity along with provision of TREM card for safety purpose.</td></tr>
<tr><td></td><td>v. Encourage use of cleaner fuels (pet coke/ furnace oil/ LSHS may be avoided).</td><td>Noted.

Unit has proposed to use natural gas of fuel with alternative of solid fuel (Briquette).
Unit give first priority of natural gas as fuel.</td></tr>
<tr><td></td><td>vi. Best Available Technology may be used. For example, usage of EAF/ SAF/ IF in place of cupola furnace. Usage of Supercritical technology in place of sub-critical technology.</td><td>Unit has proposed Specialty chemicals manufacturing.
Unit will adopt which adopt convention technology.

Justification:
Company’s manufacturing team always attempt to accept and adopt technology and innovation which helps to maintain balance between maximum yield production and minimum pollution load on environment.

Company’s management will focus on below mentioned things:
1. Environmental sustainability
2. Health and Safety
3. Cost-Effectiveness
4. Integrated Waste Management using 4-R principle (Refuse, Reduce, Reuse, Recycle)</td></tr>
<tr><td></td><td colspan="2">Further details regarding proposed technology and its alternatives are provided below:
<table>
<tr><th>Particulars</th><th>Proposed Technology</th><th>Remarks</th></tr>
<tr><td>Process Technology</td><td>– The company will try to use the Best Available Process Technology (BAT) for the production
– The proposed product is Specialty Chemicals and set in R&D. However, alternative technology will be explored which can reduce pollution and increase yield</td><td>– Product manufacturing process will implement the principles of sustainable development which emphasizes to:
– Minimize water consumption by recycling of water.
– Minimize air emissions by using Air Pollution Control devices.
– Handling, storage and usage of less hazardous chemicals.</td></tr>
</table></td></tr>
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			– Products are chosen based on RND which will provide the highest(maximum) yield.
	Water Supply	– The total Fresh Water Requirement after Expansion will be 176.63 KLD. – Freshwater will be soured through GIDC Water Supply Authority.	– However, Unit will **recycle 76.7 (30% of total water required)**. – Thus, fresh water demand will **reduce to 176.63 KLD from total water requirement 253.33 KLD.** – Rain water harvesting plan prepared.
	Wastewater Disposal	**ETP – 1:** – 17.15 KLD Process Low COD Effluent combine with 4.8 KLD Boiler & Cooling Blowdown, washing @ 70.00 KLD treated in Primary ETP & subjected to Secondary ETP and Treated Effluent (61.5 KLD) sent to CETP of The Green Environmental Services Co-Op. Society. Ltd. **ETP – 2:** – 30 KLD High COD Effluent will be sent to The Green Environment Services Co-Op. Society Ltd. and/or Society for Clean Earth-Vatva and/or Chhatral Environment Management System Pvt. Ltd. and/or In-house Spray Dryer. **Scrubbing Solution:** – Scrubbing Solution (30% HCl) shall be sent to End User or treated with high COD Effluent within premises. – Scrubbing Solution (18-20% $NaHSO_3$) Reuse within premises.	– Existing disposal will be continued in CETP of The Green Environmental Services Co-Op. Society. Ltd. – Additional High COD waste water will be subjected to in-house Spray Dryer or sent to The Green Environment Services Co-Op. Society Ltd. and/or Society for Clean Earth-Vatva and/or Chhatral Environment Management System Pvt. Ltd for Spray Drying.

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<td>Fuel Requirement / and Air Pollution Control</td>
<td>
– Natural gas already used in Existing Thermopack & boiler.
– Natural gas or Briquette will be used as a fuel for IBR Boiler, Thermopack Boiler & Hot Air Generator and Diesel as a fuel for stand by D.G. Set.
– Unit has proposed to provide necessary Air Pollution Control Devices
– Adequate stack height already provided for natural gas based existing Boiler & Thermopack boiler. MCS + Bag Filter + Water Scrubber & Packed Column Alkali Scrubber for process gas emission of SO2, Venturi Scrubber proposed for Boiler, Thermopack Boiler & Hot Air generator with adequate stack height.
– Water Scrubber & Packed Column Alkali Scrubber for process gas emission from Chlorosulphonator. Venturi Scrubber + Two Stage water Scrubber & Single Stage Alkali Scrubber process gas emission from Drawing vessel along with 18 m stack height and two stage scrubbing system for process gas emission of PM for spry dryer along with 30 m stack height.
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<tr><td>Thermopack Boiler (6 Lac KCal/Hr.) (Existing)</td><td>Natural Gas</td><td>2300 SCM/Day</td></tr>
<tr><td>IBR Boiler (1.0 TPH) (Existing)</td><td>Natural Gas OR Briquette solid fuel</td><td>2260 SCM/Day OR 5.0 MTD</td></tr>
<tr><td>Thermopack Boiler (4 Lac KCal/Hr.) (Additional)</td><td>Natural Gas OR Briquette solid fuel</td><td>1530 SCM/Day OR 3.0 MTD</td></tr>
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<tr><td>DG Set (125 KVA) (Standby)</td><td>Diesel</td><td>15 litre/hr.</td></tr>
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<tr>
<td></td>
<td>Hazardous Waste Disposal</td>
<td>– Gypsum sludge (ETP Sludge, Spray Dryer) send to TSDF site or Cement Industries for co processing.</td>
<td>– Priority given to pre/Co-Processing of waste to recycling of waste.</td>
</tr>
</table>

		– Discarded Containers /Barrels /Liners contaminated, Used Oil/ Spent Oil are reuse or send to authorize vendor – Process Waste (Organic), Spent carbon send to pre/Co processing unit (Cement industries) or Incinerator. – These wastes shall be properly collected and stored in a separated/designated storage area and safely disposed	– Unit has obtained membership of M/s. Ecocare Infrastructure Pvt. Ltd. for TSDF. – Unit has obtained membership of M/s. Maurya Enviro Project Pvt. Ltd. for CHWMF. – Unit has obtained membership of M/s. Novel Spent Acid for Spent Sulfuric Acid. – Unit has obtained membership for sell Gypsum to M/s. Shree Cement Ltd. and/or Send to Ambuja Cement Industries
	vii. Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible.	Total project area is 7128 sq. meter (0.7128 Ha), 0.285 Ha (40%) area shall be earmarked for the proposed greenbelt development within premises. Total 150 trees (considering 80% survival rate) shall be planted with the species given under greenbelt development plan.	
	viii. Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.	Total area of greenbelt is 2850 Sq.m. (150.00 Sq. meter 2.11 % (within plant premises), 350 sq m. i.e., 4.91% (opposite to plant), 2350.00 Sq. meter 32.98% of (greenbelt area will be develop in GIDC-Vatva Common area)	

Particulars	**Existing Greenbelt**	**Greenbelt recently developed**	**Proposed Greenbelt developed outside GIDC**	**Total Greenbelt Area**
Greenbelt area	150 Sq. m.	350 Sq. m.	2350.00 Sq. m.	2850.00 Sq. m.
% of Greenbelt area	2.11 % of existing plot area (7128.00 Sq. m.)	4.91 % of existing plot area (7128.00 Sq. m.)	32.98 % of existing plot area (7128.00 Sq. m.)	40.00 % existing plot area (7128.00 Sq. m.)
No. of trees considering 2500 trees per hector	38 Nos.	88 Nos.	588 Nos.	714 Nos.

Additional trees required considering 80% survival rate	8 Nos.	18 Nos.	118 Nos.	144 Nos.
Total Nos of Trees	**46 Nos.**	**106 Nos.**	**706 Nos.**	**858 Nos.**

Trees Proposed for Greenbelt Development

Sr. No.	Type	Species	Ht. (m)	Family	Local Name	Growth	Sensitive/ Tolerant (To air pollution)
1	A18	*Achras sapota*	7-10	Sapotaceae	Chiku	Slow growing	Tolerant
2	A22	*Aegle marmelos*	12-15	Rutaceae	Bel	Slow growing	Tolerant
3	A25	*Ailanthus excelsa*	20-22	Simaroubaceae	Mahanimb	Quick growing	Tolerant
4	A29	*Albizia lebbeck*	12-16	Mimosaceae	Safed Siris	Quick growing	Tolerant
5	A39	*Anogeissus latifolia*	20-25	Combretaceae	Dhaura	Slow growing	Tolerant
6	A40	*Anthocephalus chinensis*	25-30	Rubiaceae	Kadamb	Quick growing	Tolerant
7	A44	*Azadirachta indica*	12-15	Meliaceae	Neem	Quick growth after first season	Tolerant
8	B7	*Bauhinia purpurea*	5-7	Caesalpiniaceae	Kanchan	Quick growing	Tolerant
9	C7	*Cassia fistula*	12-14	Caesalpiniaceae	Amaltas	Quick growing	Tolerant
10	C11	*Cassia siamea*	10-12	Caesalpiniaceae	Kassod	Fast growing	Tolerant
11	D2	*Dalbergia sissoo*	25-28	Fabaceae	Shisham	Quick growth after first season	Tolerant
12	E1	*Emblica officinalis*	4-5	Euphorbiaceae	Amla	Quick growing	Tolerant
13	F1	*Ficus benghalensis*	05-20	Moraceae	Bargad	Quick growing	Tolerant

14	F7	*Ficus religiosa*	15-20	Moraceae	Peepal	Slow growing in early stages	Tolerant
15	F5	*Ficus glomerata*	05-15	Moraceae	Gular	Quick growing	Tolerant
16	F9	*Ficus virens*	05-10	Moraceae	Pilkhan	Quick growth after first season	Tolerant
17	L1	*Lagerstroemia parviflora*	05-25	Lythraceae	Phurush	Quick growing	Tolerant
18	M2	*Madhuca longifolia*	05-15	Sapotaceae	Mahua	Quick growing	Tolerant
19	M5	*Mangifera indica*	10-18	Anacardiaceae	Aam	Quick growing	Sensitive
20	M13	*Morus alba*	5-8	Moraceae	Shahtut	Quick growing	Tolerant
21	P9	*Polyalthia longifolia*	10-15	Annonaceae	Ashok	Quick growing	Tolerant
22	S15	*Spondias pinnata*	7-10	Anacardiaceae	Amra	Quick growing	Tolerant
23	S20	*Syzygium cumini*	15-20	Myrtaceae	Jamun	Quick growing	Tolerant
24	T2	*Tamarindus indica*	15-20	Caesalpiniaceae	Imli	Quick growing	Tolerant
25	T6	*Terminalia arjuna*	10-15	Combretaceae	Arjun	Quick growing	Tolerant
26	T9	*Terminalia chebula*	10-15	Combretaceae	Harad	Quick growing	Tolerant

Sr. No.	**Species**	**Family**	**Local Name**	**Growth**	**Sensitive/ Tolerant (To air pollution)**
1	*Annona squamosa*	Annonaceae	Sharifa	Quick growing	Tolerant
2	*Bauhinia racemose*	Caesalpiniaceae	Banraj/Katmauli	Quick growing	Tolerant
3	*Callistemon citrinus*	Myrtaceae	Lemon Bottle brush	Slow growing	Tolerant
4	*Carissa spinarum*	Apocynaceae	Karaunda	Quick growing	Tolerant
5	*Psidium guajava*	Myrtaceae	Amrood	Quick growing	Tolerant

6	*Moringa oleifera*	Moringaceae	Sehjan	Quick growing	Tolerant

Shrub proposed for green belt development.

Sr. No.	Species	Family	Local Name	Growth	Sensitive/ Tolerant (To air Pollution)
1	*Duranta repens*	Verbenaceae	Pigeon berry	Quick growing	Tolerant
2	*Bougainvillea spectabilis*	Nyctaginaceae	Booganbel	Quick growing	Tolerant
3	*Citrus limon*	Rutaceae	Nimbu	Quick growing	Tolerant
4	*Grewia subinaequalis*	Tiliaceae	Phalsa	Quick growing	Tolerant
5	*Hibiscus rosa-sinensis*	Malvaceae	Gudhal	Quick growing	Tolerant
6	*Lawsonia inermis*	Lythraceae	Mehandi	Quick growing	Tolerant
7	*Murraya paniculata*	Rutaceae	Marchula	Quick growing	Tolerant
8	*Nerium indicum*	Apocynaceae	Kaner	Quick growing	Tolerant
9	*Sesbania sesban*	Fabaceae	Jainti	Quick growing	Tolerant
10	*Thevetia peruviana*	Apocynaceae	Pila kaner	Quick growing	Tolerant

Medicinal uses of some plants selected for greenbelt development

Sr. No.	Botanical Name	Common Name	Part used	Medicinal use
1	*Ailanthus excelsa*	Ardu	Stem	Stem Juice mixed with sugar or honey is given orally to birth control
			Bark	Stem bark Decoction is given orally mixed with honey to treat Dysentery
2	*Aegle marmelos*	Bel	Ripe fruit	Ripe fruit is used to treat Dyspepsia, bacillary dysentery
			Roots and Bark	Roots and bark decoction is used to treat Fever
			Leaf	Leaf extract are helpful in treating Inflammation, asthma, hypoglycemia, hepatitis etc.
3	*Albizia lebbeck*	Safed Siris	Leaf	Leaf extract are helpful in Bites and stings from venomous animals, ear pain and coughing
			Bark	Bark extract is helpful in Blood purification.
			Seeds	Seeds extract are used in Diarrhoea and Dysentery
4	*Anthocephalus Chinensis*	Kadamb	Leaf	Hydrocoele and in Pyorrhea, ulcers and wounds, stomatitis
			Bark	Eye diseases
			Fruit	Gastric irritability
5	*Anogeissus Latifolia*	Dhaura	Bark	Bark extract is used in Diarrhoea, cough, liver diseases, snakebite and skin diseases

				Gum	Gum is used as Tonic and generally consumed after delivery of child.
				Leaf	Leaf extract is helpful in curing Purulent discharges from the ear
				Fruit	Fruit is taken for relief in Cough and biliousness
	6	*Azadirachta indica.*	Neem	Leaf	Leaf extract cures Leprosy, intestinal helminthiasis, respiratory disorders, constipation, rheumatism, chronic syphilitic sores and ulcer
				Flower	Flowers extracts are useful in Bile suppression, elimination of intestinal worms and phlegm
				Fruit	Fruit is taken for curing Piles, intestinal worms, urinary disorder, phlegm, eye problem, diabetes, wounds and leprosy
				Bark	Analgesic and antipyretic
	7	*Cassia fistula*	Amaltas	Seeds	Mild laxative
				Leaf	Insect bites, swelling, rheumatism and facial paralysis
				Roots	Tonic, an astringent, febrifuge and strong purgative, migraine and dysentery
	8	*Carissa carandas*	Kronda	Fruit	used as vegetable and medicine
	9	*Dalbergia sissoo*	Shisham	Leaf	Gonorrhoea
				Roots	Astringent
				Wood	Leprosy and to allay vomiting
	10	*Ficus benghalensis*	Bargad	Bark	Dysentery, diarrhoea, leucorrhoea, nervous disorders and reduces blood sugar in diabetes
				Leaf	Leaf extract is applied externally to abscesses and wounds to promote suppuration.
				Aerial Roots	Pimples, leucorrhoea and osteomalacia
				Twigs	Strengthen gums and teeth
				Latex	Rheumatism, haemorrhoids, gonorrhea, cracks of the sole and skin diseases
	11	*Ficus glomerata*	Gular	Bark	Diabetes, bronchitis, dry cough, dysentery, diarrhoea etc.
				Leaf	Diarrhoea, dyspepsia, haemorrhages and obesity
				Fruit	Leprosy, blood diseases, fatigue, leucoderma etc.
	12	*Lagerstroemia Parviflora*	Phurush	Leaf	Diabetes mellitus
				Roots	Mouth ulcers
				Bark	Febrifuge, and for relief of abdominal pains
	13	*Madhuca Longifolia*	Mahua	Bark	Leprosy and wounds
				Flower	Cough, biliousness and heart-trouble.
				Fruit	Blood diseases
	14	*Mangifera indica*	Aam	Roots and Bark	Anti-syphilitic, anti-inflammatory, leucorrhoea, wounds, ulcers and vomiting.

				Leaf	Cough, hiccup, burning sensation, hemorrhages, diarrhoea and dysentery
				Flower	Anorexia, dyspepsia, diarrhoea and aneamia etc
				Ripe Fruit	Anorexia, dyspepsia, cardiopathy, haemorrhages from uterus, lungs and intestine and aneamia.
				Unripe Fruit	Dysentery ophthalmia, and urethrorrhagia
	15	*Tamarindus indica*	Imli	Fruit	used as food
	16	*Terminalia arjuna*	Arjun	Leaf, Stem Bark	Medicinal use

Financial provisions for the proposed green belt development plan

Sr. No.	Particulars	Amount (Rs)
	PRIMARY STAGE (During first phase)	
1	Site preparation, Soil Testing, Conditioning & manuring of soil, Trenching, Pit digging, Protective fencing	2,75,000/-
	SECONDARY STAGE (During subsequent second phase)	
2	Procurement of tree seedling, sapling, Plantation of tree species, Weeding and clearing of plantation area, Replacement of dead plants, manuring, watering, and monitoring of growth of the plants during Second year.	1,17,150/-
	Total	**3,92,150/-**

	ix. Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to be widened, shall be prescribed as condition.	– Project location is in well-established GIDC of Vatva having adequate infrastructure facilities. – Unit has provided 6-meter-wide paved road inside premises which is quite adequate. – After proposed expansion, it is estimated project require approx. 55 no. of trucks will be required for raw material transportation, 105 no. for transportation of finished products and 90 no. of trucks for hazardous waste transportation per month. Thus, Total 8 no. of trucks per day will be arriving / leaving the project site.
Water	<u>Stipulations of conditions such as:</u>	
	i. Reuse/ recycle of treated wastewater, wherever feasible.	**Domestic Wastewater:** Domestic Waste water shall be subjected to Modular STP and reused in Gardening/Greenbelt. **Industrial Wastewater:** Low COD Effluent:

– 17.15 KLD Process Low COD Effluent combine with 4.8 KLD Boiler & Cooling Blowdown, washing @ 47.85 KLD treated in Primary ETP & subjected to Secondary ETP and Treated Effluent (61.5 KLD) sent to CETP of The Green Environmental Services Co-Op. Society. Ltd.

High COD Effluent:

– 30 KLD High COD Effluent will be sent to The Green Environment Services Co-Op. Society Ltd. and/or Society for Clean Earth-Vatva and/or Chhatral Environment Management System Pvt. Ltd. and/or In-house Spray Dryer.

Scrubbing Solution:

– Scrubbing Solution (30% HCl) shall be sent to End User or treated with high COD Effluent within premises.
– Scrubbing Solution (18-20% NaHSO3) Reuse within premises.

Wastewater	Qty. (KLD)	Reuse/Recycle
Domestic	7.0	Gardening purpose@7.0 KLD
Industrial- Boiler blowdown	67 KLD	Recirculate in boiler
Industrial- Distilled water	9.63 KLD	Reused in premises
Scrubbing Solution (30% HCl)	8.5 KLD	Reused in premises
Scrubbing Solution (18-20% NaHSO3)	0.5 KLD	Reused in premises

Total After Expansion

Achieved Wastewater Characteristics using appropriate ETP Treatment

Sr. no.	Unit	Technological advance	Efficiency	Characteristics (Before Treatment)	Characteristics (After Treatment)	CETP Norms
1	ETP (Primary, Secondary, Tertiary) & Spray Dryer	– The final effluent quality meets the meeting norms of CETP discharge. – Design (Volume or surface flow rate) – Average Flow requirement. – Adequate detention time. – Sludge handling.	96-98%	pH: 6.5-7.5 TSS: 290 TDS: 9215 BOD: 3337 COD: 13794	pH: 6.5-7.6 TSS: <90 TDS: 8813 BOD: <500 COD: <1504	pH: 6.5-8.5 TSS: 300 BOD: 500

			– Waste water quality. – Level of toxicity – Regular testing, Maintenance & keeping records. – Energy monitoring, measurement and verification programs. – Energy Audits. – Process Control sampling and testing schedule. – Emergency response procedure. – Emergency shutdow procedure				COD: 1500

*__NOTE__: Maximum operational efficiency achieved through Advance technological processes and decreasing the Characteristics of Wastewater.

ii. Continuous monitoring of effluent quality/ quantity in large and medium Red Category Industries (water polluting).	– Unit shall be installed as applicable. – Industry shall install CEMS, TOC meter camera and flow meter in the channel/drain provided for carrying the effluent from within the industry premises. – Unit has proposed CEMS (Continuous Emission Monitoring System) for Effluent and Regular data reflecting the online monitoring results on the company's server, which can be assessable by the SPCB-RO on real time basis. – As well as display shall be provided on front gate of the unit providing continuous data of effluent discharge.

<table>
<tr><td></td><td>iii. A detailed water harvesting plan may be submitted by the project proponent.</td><td>Detailed Rain water harvesting plan is enclosed;
Calculation of available Rain Water for Harvesting
<table>
<tr><th>Sr. No.</th><th>Particulars</th><th>Area (Sqm)</th><th>Rainfall (m)</th><th>Runoff Coefficient*</th><th>Quantum of Run off available (Cum/Year)</th></tr>
<tr><td>1</td><td>Roof Top of building/Shed</td><td>16.00</td><td>0.78</td><td>0.85</td><td>11.00</td></tr>
<tr><td>2</td><td>Road/Paved area</td><td>2126.00</td><td>0.78</td><td>0.65</td><td>1078.00</td></tr>
<tr><td>3</td><td>Open Land</td><td>0.00</td><td>0.78</td><td>0.20</td><td>00.00</td></tr>
<tr><td>4</td><td>Green Belt</td><td>150.00</td><td>0.78</td><td>0.15</td><td>18.00</td></tr>
<tr><td></td><td>Total (sqm)</td><td>2292.00</td><td>-</td><td>-</td><td>1106.00</td></tr>
</table>
* Ref: Manual of Artificial Recharge of Ground Water, (CGWB,2007)

Tank Detail
Moc — RCC tank
Nos & Size — 1 Nos. Tank & 100 KL
Dimensions — 7 m X 5 m X 3 m</td></tr>
<tr><td></td><td>iv. Zero liquid discharge wherever techno-economically feasible.</td><td>Existing disposal will be continued in CETP of The Green Environmental Services Co-Op. Society. Ltd Additional waste water will be subjected to in-house Spray Dryer or sent to The Green Environment Services Co-Op. Society Ltd. and/or Society for Clean Earth-Vatva and/or Chhatral Environment Management System Pvt. Ltd</td></tr>
<tr><td></td><td>v. In case, domestic waste water generation is more than 10 KLD, the industry may install STP.</td><td>Domestic Wastewater generation shall be 7.0 KLD and shall be subjected to STP and will be reused for gardening purpose.</td></tr>
<tr><td>Land</td><td colspan="2"><u>Stipulations of conditions such as:</u></td></tr>
<tr><td></td><td>i. Increase of green belt cover by 40% of the total land area beyond the</td><td>Unit shall provide 40% of greenbelt.
Unit has started developing green belt (150 Sq. m. i.e., 2.11% of total plot area) within premises and also Opposite to Plant Premises (350 Sq. m. i.e., 4.91% of total plot area). Plantation</td></tr>
</table>

<table>
<tr><td></td><td>permissible requirement of 33%, wherever, feasible for new projects.</td><td>shall be started in SIDC (Gujarat Industrial Development Corporation) Area (2350 Sq. m. i.e., 32.98% of total Plot area) after getting EC.
Permission obtained from Vatva Industrial Associations vides letter No.: VIA/2021-22/25-B/355 Dated: 18/03/2024.</td></tr>
<tr><td></td><td>ii. Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.</td><td>
<table>
<tr><th>Particulars</th><th>Existing Greenbelt</th><th>Greenbelt recently developed</th><th>Proposed Greenbelt developed outside GIDC</th><th>Total Greenbelt Area</th></tr>
<tr><td>Greenbelt area</td><td>150 Sq. m.</td><td>350 Sq. m.</td><td>2350.00 Sq. m.</td><td>2850.00 Sq. m.</td></tr>
<tr><td>% of Greenbelt area</td><td>2.11 % of existing plot area (7128.00 Sq. m.)</td><td>4.91 % of existing plot area (7128.00 Sq. m.)</td><td>32.98 % of existing plot area (7128.00 Sq. m.)</td><td>40.00 % existing plot area (7128.00 Sq. m.)</td></tr>
<tr><td>No. of trees considering 2500 trees per hector</td><td>38 Nos.</td><td>88 Nos.</td><td>588 Nos.</td><td>714 Nos.</td></tr>
<tr><td>Additional trees required considering 80% survival rate</td><td>8 Nos.</td><td>18 Nos.</td><td>118 Nos.</td><td>144 Nos.</td></tr>
<tr><td>Total Nos of Trees</td><td>46 Nos.</td><td>106 Nos.</td><td>706 Nos.</td><td>858 Nos.</td></tr>
</table>
</td></tr>
<tr><td></td><td>iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/ PCCs.</td><td>Unit shall handle & dispose Fly Ash according to the Fly Ash Notification.
The quantity of fly ash from the Boilers/Themopacks/HAG of the different zones viz bag filters will be collected and stored into silo. The fly ash will be given to cement manufacturer, brick manufacturer and road construction.

Detail of Non-Hazardous Waste & Its Management
<table>
<tr><th>Sr. no.</th><th>Type/Name of Other wastes</th><th>Specific Source of generation</th><th>Total Quantity (MT/Annum)</th><th>Management of Wastes</th></tr>
<tr><td>1</td><td>Fly ash</td><td>Bio Coal</td><td>1200</td><td>Collection, storage in silo, transportation & send to Brick manufacturer OR farmer for agricultural purposes.</td></tr>
</table>
</td></tr>
<tr><td></td><td>iv. More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in co-processing.</td><td>All the wastes will be disposed of as per Solid and hazardous waste management Rules.
We give priority to recycle/pre/Co-processing of waste to minimize waste disposal quantity to TSDF site</td></tr>
</table>

Sr. No.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)			Management of HW
				Existing	Proposed	Total	
1	Gypsum sludge	ETP & Spray Dryer	35.3/SCH-I	5376	5179	10555	Collection, Storage, Transportation and disposal to authorized TSDF or Cement Industries for co processing.
2	Process Waste (Inorganic)	Mfg. Process	28.1/SCH-I	14.4	-	*14.4	Collection, Storage, Transportation, disposal at TSDF site.
3	Used Oil/ Spent Oil	Maintenance Activities	5.1/SCH-I	10 lit.	40 lit.	50 lit.	Collection, Storage, Transportation; reuse as lubricant or by selling to Authorized re-refiners.
4	Discarded Containers/ Barrels/Liners contaminated with hazardous Wastes/ chemical	Raw Material Supplier	33.1/SCH-I	14400 Nos.	1712 MT (85600 Nos.)	2000MT (100000 Nos.)	Collection, Storage, Transportation. Disposal by Selling to Authorized recycler.
5	Spent Sulfuric Acid	Mfg. Process	15/SCH-II-B	6360 **and/or**	5958 **and/or**	*12318 **and/or**	Collection, Storage, Transportation and disposal to M/s. Novel Spent Acid Management, Vatva **and/or**

				3780	3705	7485	M/s. Shree Cement Ltd and/or Send to Cement Industries after converting in to gypsum by neutralizing.
6	Scrubbing Solution25-30% HCl (Spent HCl)	Chlorination	26.1/SCH -I	306	2500	2806	Collection, Storage, Transportation and disposal to Rule – 9 users and/or to spray drying facility after In-house Neutralization for co processing and/or in-house spray drying.
7	Scrubbing Solution 18-20% NaHSO3	Sulphonation		182.5	-	182.5	Collection, Storage & Reuse within premises. (In the Mfg. Vinyl Sulphone Para Cresidine Base- 252 KL/Annum)

Detail of Non-Hazardous Waste & Its Management

Sr. no.	Type/Name of Other wastes	Specific Source of generation	Total Quantity (MT/Annum)	Management of Wastes
1	Fly ash	Bio Coal	1200	Collection, storage in silo, transportation & send to Brick manufacturer OR farmer for agricultural purposes.
2	E- waste	Used Electric appliances/items	1.00	Collection, storage, transportation & send to E-waste waste recycler.
3	Plastic waste	Plastic Materials	2.50	Collection, storage, transportation & sell to Plastic Waste Processor.

	4	Paper & Cardboard waste	Regular Utility	0.024	Collection, storage, transportation & sell to recyclers.
	6	SWM – Non-Biodegradable waste	Regular Activity	26.46	The non-biodegradable wastes are segregated and are being sent to Authorize vendor.
		SWM – Biodegradable waste		61.74	Biodegradable will be converted in fertilizer by putting organic waste converter/compost machine with in premises. Fertilizer will be reuse with in the premises.

Other condition (Additional):	i. Monitoring of compliance of EC conditions may be submitted with third party audit every year.	Noted & shall be complied Unit has applied for EC.
	ii. The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance.	**Budget for CER as per Ministry's Circular along with Activities and its timeline for Commitments** As per the ministry's O.M No 22-65/2017-IA.II (M) dated 1st May-2018, CPCB file No.CPCB/IPC-VII/CEPI/NGT/2019 dated 25th September-2019, Rs. 10.90 lakhs which is 2% of the total project Investment (Rs.5.43 Cr.) has been earmarked for Corporate Environmental Responsibility (CER) Activities

Activities (On basis of Need Assessment)	**Phase Wise Budget**		
	1st Year	**2nd Year**	**Total**
Tree Plantation will be done on side of the approach road to villages. Cost of 1 pant- 550/- with tree Guard & maintenance of water. (250 Plants). Proposed tree guards for surviving of plants & trees. village- **Bibipur**)	**0.70**	**0.70**	**1.40**
Rain Water Recharging Structure 2.0 Lakh /One Recharge well- **Memadpur, Gatrad**	**2.25**	**2.25**	**4.50**
Solar Panel & Solar Street Light • Provide solar panel for primary school: 4 KW X 1 Nos (1.50 lakh each) Village: **Bibipur,**	**2.50**	**2.50**	**5.00**

• Provide solar Street Light: 12W X 35 Nos. (10,000 rupees) Village: **Bibipur** (10 Nos.)**, Memadpur**(25Nos.)				
Total	**Approx. INR 10.90 Lakhs**			

Details of Budget for Environmental Management

Sr. No.	Unit	Detail	Capital Cost (Rs. In Lakhs)		Operating Cost/ Month (Rs. In Lakhs)		Maintenance Cost / Month (Rs. In Lakhs)		Total Recurring Cost / Month (Rs. In Lakhs)	
			Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed
1	Waste Water	STP	0.00	5.00	0.00	0.00	0.00	0.07	0.00	0.07
		Primary, Secondary & Tertiary ETP & Spry Dryer	100.00	13.00	19.05	2.60	1.91	0.29	20.96	2.89
		Membership	2.00	1.00	9.53	0.00	0.00	0.00	9.53	0.00
2	Air	3 No. Scrubber (Two stage), 3 No. MCS & Bag Filter & 6 No. Water & Alkali Scrubber	25.40	17.00	0.42	0.46	0.32	0.22	0.74	0.68
3	Hazardous Management	Membership & Disposal	1.00	3.00	0.03	0.00	0.00	8.00	0.03	8.00
		Transportation	0.00	0.00	0.10	0.00	0.00	5.00	0.10	5.00
		Spent acid Neutralization process& Gypsum Disposal **OR**	0.00	9.00	0.00	15.00	0.00	9.50	0.00	24.50
		Spent acid disposal	0.00	0.00	0.00	0.00	0.00	18.00	0.00	18.00
4	Fire & Safety	Fire Hydrant & pipeline System	23.30	6.00	0.23	0.06	0.12	0.03	0.35	0.09
		Safety equipment/ PPES	7.00	4.10	0.07	0.04	0.04	0.02	0.11	0.06
		Fire Extinguisher	3.85	1.60	0.04	0.02	0.02	0.01	0.06	0.03

		& Foam Trolley								
		Foam Flooding System	0.00	6.00	0.00	0.20	0.00	0.10	0.00	0.30
		Flame proof electric fitting	0.00	5.00	0.00	0.25	0.00	0.10	0.00	0.35
		Trailer Driven Pump	0.00	6.00	0.00	0.05	0.00	0.05	0.00	0.10
5	Green Belt Development	Trees	0.00	3.92	0.00	0.39	0.00	0.20	0.00	0.59
6	Occupational Health	OHC, Training & Medical Checkup	1.00	1.00	0.10	0.10	0.05	0.05	0.15	0.15
7	Noise Control	Acoustic enclosure & mufflers, silencers at the air inlet/outlet & Anti-Vibration pads & Noise PPEs	1.00	1.00	0.10	0.10	0.05	0.05	0.15	0.15
8	VOC Control & LDAR	Mechanical seal Pump, Flange Guard, Close charging System	6.00	0.00	0.15	0.00	0.08	0.00	0.23	0.00
9	Environment Monitoring Program/ CEMS	In House Monitoring	6.50	26.50	0.04	0.30	0.00	0.20	0.04	0.50
10	CER Activities	1 % as per OM dated 01/05/2018	0.00	10.90	0.00	0.06	0.00	0.04	0.00	0.10
11	Other Activity	Wildlife Conservation Plan of	0.00	5.00	0.00	0.04	0.00	0.06	0.00	0.10

			Schedule I fauna							
	Sub-Total			**177.05**	**125.02**	**29.86**	**19.67**	**2.59**	**23.99**	**32.45**	**43.66**
	Total			**302.07**		**49.53**		**26.58**		**76.11**	

1. CCA obtained after SCN, Copy of CCA amendment 26.12.2023 need to submit.
2. Letter from GIDC stating the they have authorised Industrial Association to allocate plot area for green belt development by the PP
3. Details of method for disposal of ETP's sludge.
4. PP need to instal STP for treatment of sewage.
5. PP need to submit action plan for development of Greenbelt.
6. Revised details of Carbon footprint and its mitigation measures.
7. Details of chronology of revocation of SCN in terms of issuance/renewal of consents and documentary evidence.

Accordingly, proposal was deferred for want of above additional information. Above all additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Agenda No. 78.12

Proposed Expansion of Synthetic Organic Chemical Industry 5(f) (Dyes & Dye Intermediates, Bulk Drugs and intermediates excluding drug formulation, synthetic rubbers, basic organic chemicals, other synthetic organic chemicals and chemical intermediates) at Plot No. 1430/1, NH No. 8A, Taluka Bhachau, District Kutch, State Gujarat by Aarti Industries Limited (ANUSHAKTI DIVISION)- Corrigendum in EC.

[Proposal No. IA/GJ/IND3/465278/2024; File No. IA-J-11011/293/2020-IA-II(I)

1. The proposal is for Corrigendum in EC for .EC vide letter A-J-11011/293/2020-IA-II(I) dated 17/06/2023 for Proposed Expansion of Synthetic Organic Chemical Industry 5(f) (Dyes & Dye Intermediates, Bulk Drugs and intermediates excluding drug formulation, synthetic rubbers, basic organic chemicals, other synthetic organic chemicals and chemical intermediates) at Plot No. 1430/1, NH No. 8A, Taluka Bhachau, District Kutch, State Gujarat by Aarti Industries Limited (ANUSHAKTI DIVISION)

2. The project proponent has requested for Corrigendum in the EC with the details are as under:

<table>
<tr><th>S. No.</th><th>Para of EC issued by MoEF&CC</th><th>Details as per the EC</th><th>To be revised/ read as</th></tr>
<tr><td>1</td><td>13</td><td>
Details of Process Emissions Generation and its Management:
<table>
<tr><th>S. No.</th><th>Stack Attached to</th><th>Nos. of Stacks</th><th>Stack Height in m</th><th>Pollutants Emitted & Limits</th><th>Air Pollution Control Measures Attached</th><th>Location</th></tr>
<tr><td colspan="7">Existing</td></tr>
<tr><td>1</td><td>Incinerator</td><td>1</td><td>30</td><td>PM: 150 mg/Nm^3, SO_2: 100 ppm, NOx: 50 ppm</td><td>Scrubber</td><td>Removed</td></tr>
<tr><td>2</td><td>HCl Stack</td><td>1</td><td>30</td><td>HCl : 20</td><td>Two Stage</td><td>Chlorinati</td></tr>
</table>
</td><td>
Details of Fuel Consumption and Flue Gas Emissions Generation and its Management:
<table>
<tr><th>S. No.</th><th>Stack Attached to</th><th>Capacity</th><th>Stack Height in m</th><th>Type of Fuel used</th><th>Fuel consumption</th><th>APCM Details</th><th>Parameter with limits</th><th>Remarks</th></tr>
<tr><td colspan="9">Existing</td></tr>
<tr><td>1</td><td>Boiler</td><td>12 TPH-Standby</td><td>30</td><td>Coal</td><td rowspan="3">220 MT/ Day</td><td>ESP + Dry Scrubber</td><td rowspan="3">PM: 150 mg/Nm^3
SO_2: 100 ppm
NOx : 50 ppm</td><td>Standby</td></tr>
<tr><td>2</td><td>Boiler</td><td>15 TPH-Standby</td><td>30</td><td>Coal</td><td>Bag Filter + Dry Scrubber</td><td>Standby</td></tr>
<tr><td>3</td><td>Thermic Fluid Heater</td><td>20 Lac Kcal/Hr</td><td>30</td><td>Coal</td><td>Multi Cyclone with Dust Collector +</td><td>Working</td></tr>
</table>
</td></tr>
</table>

S. No.	Para of EC issued by MoEF&CC	Details as per the EC							To be revised/ read as								
						mg/ Nm^3	water & Alkali Scrubber	on Plant							Dry Scrubber		
									4	Thermic Fluid Heater	20 Lac Kcal/Hr	30	Coal		Bag Filter + Dry Scrubber		Working
		3	Nitrator	1	30	NOx: 100 mg/ Nm^3	Two Stage water & Alkali Scrubber	Nitration Plant	5	Hot Air Generator	-	10	Coal		Alkali Scrubber		Working
									6	Boiler	36 TPH	30	Coal		ESP + Dry Scrubber		Working
		4	Mixing Tank of $CaCl_2$	1	25	PM: 150 mg/ Nm^3, HCl : 20 mg/ Nm^3	Alkali Scrubber	CaCl2 plant	7	DG Sets	1000 kVA x 2 nos.	15	Diesel	650 litres/ hr	Adequate stack height		used when power from grid is not available
		5	$CaCl_2$ Dryer Vents	1	20	PM: 150 mg/ Nm^3	Two Stage Wet Scr	CaCl2 plant	**Proposed**								

S. No.	Para of EC issued by MoEF&CC	Details as per the EC						To be revised/ read as								
						ubber (Venturi Scrubber)		1	Boiler	12 TPH	30	Coal/ Coal + Biomass	75 MT/ Day	ESP + Dry Scrubber	PM: 150 mg/ Nm^3 SO_2: 100 ppm NOx : 50 ppm	Existing standby converted to running
		Proposed						2	Boiler	15 TPH	30	Coal/ Coal + Biomass	100 T/Day	ESP + Dry Scrubber		Existing standby converted to running
		1	$CaCl_2$ mixing Plant-1	1	15	HCl : 20 mg/ Nm^3	Alkali scrubber	3	Boiler	36 TPH	65	Coal/ Coal + Biomass	220 MT/ Day	ESP + Dry Scrubber		Additional + Working
		2	Chlorine Shed	1	15	Cl_2: 9 mg/ Nm^3	Chlorine shed scrubber (Alkali Scrubber)	4	Thermic Fluid Heater	30 Lac Kcal/Hr	30	Coal/ Coal + Biomass	26 MT/ Day	Bag Filter + Dry Scrubber		Existing replaced by higher capacity
		3	HCL Tank farm - (Additional preca	1	11	HCl : 20 mg/ Nm^3	Two stage (water + caus									

S. No.	Para of EC issued by MoEF&CC	Details as per the EC						To be revised/ read as								
			utionary)				tic) scrubber		5	Thermic Fluid Heater	40 Lac Kcal/Hr	30	Coal/ Coal + Biomass	36 MT/ Day	ESP + Dry Scrubber		Additional + Continuous Working
		4	2,4 Dichloro-3,5 Dinitro Benzo Tri Fluoride (DCDNBTF) scrubber	1	11	NOx: 100 mg/ Nm^3	two stage H_2SO_4 scrubber followed by Caustic scrubber	Nitro toluene mixture	6	Thermic Fluid Heater	20 Lac Kcal/Hr	30	LSHS	6.25 MT/day	Stack with adequate height		Additional + Continuous Working
		Total After Proposed Expansion							7	Thermic Fluid Heater	20 Lac Kcal/Hr	30	Coal/ Coal + Biomass	14.4 MT/ Day	Stack with adequate height		Existing + Continuous Working
		1	Chlorination plant (HCl stack)	1	30	HCl: 20 mg/ Nm^3	Two stage water & alkali scrubber	Chlorination Plant	8	Thermic Fluid Heater	0.5 Lac KCal/ Hr	15	Diesel	0.15 MT/day	Stack with adequate height		Additional + Working
		2	Nitration plant	1	30	NOx: 100	two stage H_2S	Nitration Plant									

S. No.	Para of EC issued by MoE F&C C	Details as per the EC						To be revised/ read as								
			(Nitrator, Nitration plant Loading area)			mg/ Nm^3	O_4 scrubber followed by Caustic scrubber		9	Hot Air Generator	-	10	Coal/ Coal + Biomass	48 MT/ Day	Alkali Scrubber		Existing + Continuous Working
		3	Alkali scrubber of $CaCl_2$ plant	1	25	PM: 150 mg/ Nm^3	Alkali Scrubber	$CaCl_2$ plant	10	DG sets	2000 KVA x 2 nos.	11	Diesel	1300 litres/ hr	Stack with adequate height		Additional Used when power from grid is not available
		4	$CaCl_2$ Dryer vents	1	20	PM: 150 mg/ Nm^3	Two stage wet Scrubber (Venturi Scrubber)	$CaCl_2$ plant	11	Thermal Oxidizer / Waste heat boiler for	90 lakh kcal/hr / 12.66 TPH	30	Off-gases (Process Gases)	62 MT/ Day	Selective Catalytic Reduction (SCR)		Additional + Continuous Working
		5	$CaCl_2$ mixing	1	15	HCl : 20 mg/ Nm^3	Alkali scrubber	$CaCl_2$ plant (Old										

S. No.	Para of EC issued by MoEF&CC	Details as per the EC						To be revised/ read as								
			plant - 1					Plant)		off gases								
		6	Chlorine Shed	1	15	Cl_2: 9 mg/ Nm^3	Chlorine shed scrubber (Alkali Scrubber)	Chlorine Shed	**Total After Proposed Expansion**									
		7	HCl Tank farm - (Additional precautionary)	1	11	HCl : 20 mg/ Nm^3	Two stage (water + caustic) scrubber	HCl Tank farm	1	Boiler	12 TPH	30	Coal/ Coal + Biomass	75 MT/ Day	ESP + Dry Scrubber	PM: 150 mg/ Nm^3 SO_2: 100 ppm NOx : 50 ppm	Existing + Working
		8	2,4 Dichloro-3,5 Dinitro Benzo Tri	1	11	HCl : 20 mg/ Nm^3, Cl_2 : 9 mg/ Nm^3	Two stage water followed by	DCD NBTF	2	Boiler	15 TPH	30	Coal/ Coal + Biomass	100 T/Day	ESP + Dry Scrubber		Existing + Working
									3	Boiler	36 TPH	30	Coal/ Coal + Biomass	220 MT/ Day	ESP + Dry Scrubber		Exiting + Working
									4	Boiler	36 TPH	65	Coal/ Coal	220 MT/ Day	ESP + Dry Scr		Additional +

S. No.	Para of EC issued by MoE F&C C	Details as per the EC						To be revised/ read as								
			Fluoride (DCDNBTF) scrubber				caustic scrubber						+ Biomass		ubber		Working
								5	Thermic Fluid Heater	20 Lac Kcal/Hr	30	Coal/ Coal + Biomass	14.4 MT/ Day	Multi Cyclone with Dust Collector + Dry Scrubber		Existing + Working
								6	Thermic Fluid Heater	30 Lac Kcal/Hr	30	Coal/ Coal + Biomass	26 MT/ Day	Bag Filter + Dry Scrubber		Existing replaced by higher capacity
								7	Thermic Fluid Heater	40 Lac Kcal/Hr	30	Coal/ Coal + Bio	36 MT/ Day	ESP + Dry Scrubber		Additional + Working

S. No.	Para of EC issued by MoE F&C C	Details as per the EC	To be revised/ read as							
							mass				
			8	Thermic Fluid Heater	20 Lac Kcal/Hr	30	LSHS	6.25 MT/day	Adequate stack height		Additional + Working
			9	Thermic Fluid Heater	0.5 Lac Kcal/Hr	30	Diesel	0.15 MT/day	Adequate stack height		Additional + Working
			10	Hot Air Generator	-	30	Coal/ Coal + Biomass	48 MT/ Day	Alkali Scrubber		Existing + Working
			11	DG Set	1000 KVA x 2 nos.	11	Diesel	650 lit/hr	Adequate stack height		Existing + Working
			12	DG set	2000 KV	11	Diesel	1300 lit/hr	Adequate		Additional +

S. No.	Para of EC issued by MoE F&C C	Details as per the EC	To be revised/ read as

		A x 2 nos.				stack height		Working
13	Thermal Oxidizer / Waste heat boiler for off gases	90 lakh kcal/hr / 12.66 TPH	30	Off-gases	62 MT/day	Selective Catalytic Reduction (SCR)		Additional + Working

Details of Process Emissions Generation and its Management:

S. No.	Stack Attached to	Nos. of Stacks	Stack Height in m	Pollutants Emitted & Limits	Air Pollution Control Measures Attached	Location
Existing						
1	Incinerator	1	30	PM: 150 mg/N	Scrubber	Removed

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as						
							m^3, SO_2: 100 ppm, NOx: 50 ppm		
			2	HCl Stack	1	30	HCl: 20 mg/N m^3	Two Stage water & Alkali Scrubber	Chlorination Plant
			3	Nitrator	1	30	NOx: 100 mg/N m^3	Two Stage water & Alkali Scrubber	Nitration Plant
			4	Mixing Tank of $CaCl_2$	1	25	PM: 150 mg/N m^3, HCl: 20 mg/N m^3	Alkali Scrubber	CaCl2 plant
			5	$CaCl_2$ Dryer Vents	1	20	PM: 150 mg/N m^3	Two Stage Wet Scrub	CaCl2 plant

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as						
								ber (Venturi Scrubber)	
			Proposed						
			1	$CaCl_2$ mixing Plant-1	1	15	HCl: 20 mg/N m^3	Alkali scrubber	CaCl2 (Old Plant)
			2	Chlorine Shed	1	15	Cl_2: 9 mg/N m^3	Chlorine shed scrubber (Alkali Scrubber)	Chlorine Shed
			3	HCL Tank farm - (Additional precautionary)	1	11	HCl: 20 mg/N m^3	Two stage (water + caustic) scrubber	HCl Tank farm
			4	2,4 Dichloro - 3,5 Dinitro Benzo	1	11	NOx: 100 mg/N m^3	two stage H_2SO_4 scrubber follow	Nitro toluene mixture

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as						
				Tri Fluoride (DCDNBTF) scrubber				ed by Caustic scrubber	
			Total After Proposed Expansion						
			1	Chlorination plant (HCl stack)	1	30	HCl: 20 mg/Nm^3	Two stage water & alkali scrubber	Chlorination Plant
			2	Nitration plant (Nitrator, Nitration plant Loading area)	1	30	NOx: 100 mg/Nm^3	two stage H_2SO_4 scrubber followed by Caustic scrubber	Nitration Plant
			3	Alkali scrubber of $CaCl_2$ plant	1	25	PM: 150 mg/Nm^3	Alkali Scrubber	$CaCl_2$ plant
			4	$CaCl_2$ Dryer vents	1	20	PM: 150 mg/Nm^3	Two stage wet Scrubber	$CaCl_2$ plant

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as						
								(Venturi Scrubber)	
			5	$CaCl_2$ mixing plant -1	1	15	HCl: 20 mg/N m^3	Alkali scrubber	$CaCl_2$ plant (Old Plant)
			6	Chlorine Shed	1	15	Cl_2: 9 mg/N m^3	Chlorine shed scrubber (Alkali Scrubber)	Chlorine Shed
			7	HCl Tank farm - (Additional precautionary)	1	11	HCl: 20 mg/N m^3	Two stage (water + caustic) scrubber	HCl Tank farm
			8	2,4 Dichloro - 3,5 Dinitro Benzo Tri Fluoride	1	11	HCl: 20 mg/N m^3, Cl_2 : 9 mg/N m^3	Two stage water followed by caustic	DCDNBTF

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as
			(DCDNBTF) scrubber scrubber

3. **Deliberations by the EAC:**

EAC noted that the Corrigendum desired by the PP is mentioned in the EIA/EMP report on pg.no 193-195 and the same is factual corrections.

After detailed deliberation, the Committee recommended the proposal for grant of corrigendum in Environmental Clearance.

Agenda No. 78.13

Modernization of Nano Fertilizer Plant, Phulpur Unit at IFFCO Phulpur, P.O. Ghiyanagar, Phulpur, District-Prayagraj, Uttar Pradesh by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO). - Consideration of Environmental Clearance

[Proposal No: IA/UP/IND3/464423/2024; F. No. J-11011/150/2006-IA. II(I)]

1. The proposal is for the Environmental Clearance to the Modernization of Nano Fertilizer Plant, Phulpur Unit at IFFCO Phulpur, P.O. Ghiyanagar, Phulpur, District-Prayagraj, Uttar Pradesh by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO).

2. The main product of unit is Urea and Ammonia is its intermediate product. Now, unit has proposed to change the product formulation and nitrogen content of Nano Urea. The concentration of Nitrogen content in Nano Urea will change to “4 to 20%” of nitrogen content.

3. The project/activity is covered under Category ‘A’ of item 5(a), Chemical Fertilizer industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended).

4. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is modernisation case **under 7(ii) of** OM

dated 11.04.2022**.** The proposal is placed in this 78h EAC meeting on 30th April, 2024, wherein the PP along with accredited Consultant, M/s EQMS Global Pvt. Ltd, (NABET Accreditation No.: NABET/EIA/2225/RA 0303 Valid Upto- 23.11.2025] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

5. PP has submitted the compliance of the project condition for consideration under 7 (ii) clause as per OM dated 11th April, 2022. PP informed that existing public hearing was conducted on 4th January 2022. Proposed modernisation and change in product mix /raw material mix is proposed within the existing plant premises. There is no increase in production capacity for modernisation. There is no increase in gaseous emissions. No change in the layout of the project is envisaged. A certified compliance report has been issued by IRO, MoEF&CC Lucknow on 31.01.2024.

6. The PP reported that the Existing land area is **776.52 Acres**. No additional land will be required for proposed modernization and no R& R is involved in the Project. The details of products to be manufactured are as follows:

S. No.	**As per EC/CTO**			**After Modernization**			**Remarks**
	Product	**Unit**	**Capacity**	**Product**	**Unit**	**Capacity**	
1	Urea	MTPD	5790	Urea	MTPD	5790	No Change
2	Ammonia (Intermediate Product)	MTPD	3300	Ammonia (Intermediate Product)	MTPD	3300	No Change
3	Captive Power	MW	53.5	Captive Power	MW	53.5	No Change
4	Nano-Urea/Nano-Sulphur / Nano-Micronutrients	KL/Annum	36,500	Nano-Urea (4 to 20% nitrogen content/ Nano-Sulphur / Nano Micronutrients	KL/Annum	36,500	Only change in Specification of Nano Urea Product (Change in product formulation from 4% to 4-20%

							nitrogen content).
5	Plastic Bottles (500 ml)	Lakh /year	570	Plastic Bottles (500 ml)	Lakh /year	570	No Change
6	Plastic Cap (for 500 ml bottles)	Lakh /year	570	Plastic Cap (for 500 ml bottles)	Lakh /year	570	No Change

6. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under the E(P) Act/Air Act/Water Act.

7. Ministry had issued EC earlier vide letter no **J-11011/150/2006-IA II (I) dated 14.03.2022.** for project "Modernization of Nano Fertilizer Plant, Phulpur Unit at IFFCO Phulpur, P.O. Ghiyanagar, Phulpur, District-Prayagraj, Uttar Pradesh-212404 by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO).

8. The PP reported that Certified compliance (letter dated14.3.2022) was issued by IRO, MoEF&CC, Lucknow vide letter dated 31.01.2024. As per the report, all the conditions are complied.

9. The PP reported that There is no Wildlife sanctuary and no reserve forests within 10 km distance from the project site. No, national parks, Biosphere Reserves, Tiger/Elephant Reserves, etc. is present within 10 km distance from the project site. Varuna River is the nearest river flowing at 7.38 km (NE) from the project site. *Pavo cristatus* (Indian Peafowl) which is Schedule-I species have been identified in the study area. Conservation plan for the same has been prepared and submitted to CWW for approval in 26.11.2021

10. The PP reported that Ambient air quality monitoring was carried out at 7 locations during 1st October 2023 to 31st December 2023 and the baseline data indicates the range of concentrations as PM_{10} (43 – 93 µg/m^3), $PM_{2.5}$ (20 – 41 µg/m^3), SO_2 (6 – 13 µg/m^3) and NO_2 (9 –26 µg/m^3), NH_3 (<20 – 31.7 µg/m^3) and CO (0.4 – 0.9 mg/m^3). All parameters are within the National Ambient Air Quality Standards (NAAQS).

11. After modernization, there will be requirement of additional 14 KLD of freshwater which will be suffice by existing supply. The total freshwater requirement will increase from 35,290 KLD to 35,304 KLD. The water will be met through existing supply i.e., groundwater. There is no generation of effluent from manufacturing process of Nano-fertilizer. However, there is generation of 1 KLD wastewater from washing and operation of cooling tower in the plant along with 9 KLD domestic sewage generated. After proposed modernization, no additional wastewater generation is anticipated. In existing, total wastewater is 9733 KLD (Industrial waste water generation 7243 KLD and domestic sewage generation 2490 KLD) Industrial wastewater generation shall be limited within the existing sanctioned quantity i.e., 9733 KLD. ETP cum neutralization tank for industrial effluent and 10 KLD of STP for domestic effluent has been provided in the nano plant. Treated water is being reused in the internal Horticulture proposed to be provided in the Nano Plant boundary. In ammonia and urea plant, wastewater streams are collected in

Guard Pond-1 & 2 and segregated into two categories i.e., Weak effluent containing – Low TDS and Strong effluent containing - High TDS. High TDS stream is being sent to the RO based ETP for treatment and treated water is used in Cooling Tower. Low TDS stream is being sent for Horticulture, Irrigation, coal yard spraying in power plant, de-ashing operation in Power plant. The wastewater generated from Urea plant containing Ammonia and urea is being treated in urea Hydrolyser to recover CO2 and ammonia from wastewater. Recovered Ammonia and CO2 is being reused in the process. In Ammonia plant, a process condensate stripper has been provided to strip off CO2, H2, N2 etc., and recycled back to the process. Stripped condensate is being used as Boiler feed water make-up after polishing. The sewerage generated from the Plant and Township is being treated in the existing STP and treated water is being reused in the Cooling Tower. Plant is maintaining Zero liquid discharge scheme in the plant and same shall be followed further.

12. There shall be no change in the power requirement. In existing, the power requirement of the plant & township is 53.5 MW. Same is being met by Captive power and Grid Supply. The electrical power generated in CPP is used to fulfill the requirement of entire plant. Plant has 2 nos. of steam turbine driven through Turbogenerator viz. TG-1 (Rating 15.625 MVA), TG-2 (Rating-22.5 MVA) and one Gas Turbine Generator (GTG) (Rating-28.125 MVA) in captive power plant. For Power backup, DG having capacity of 2 x 2700 KVA are already installed in existing unit. No additional DG set is proposed. Power requirement for the Nano plant is ~2.0 MW. Existing power consumption after energy saving scheme is ~30 MW. After proposed Modernization, there will be no change in the power requirement. No additional DG set is proposed in the modernization.

13. Existing unit has Natural gas & Coal based 3 x 125 TPH steam boiler with 100 m stack and 1 x 60 TPH HRSG with 30 m stack. No additional Boiler is proposed. Particulate emission is within the statutory limit given by CPCB & UPPCB.

14. **Details of Fuels:** The fuel requirement of the project involves Natural Gas, Coal & HSD for boilers and DG set operations. Natural Gas is being sourced from GAIL station available within the plant area and indigenous coal is used. HSD is being sourced through local suppliers. After proposed modernization, there will be no change in the fuel requirement of the complex.

Type of Fuel	Quantity of Fuel	Source
Natural Gas as Fuel (Nm3/hr)	11668	GAIL
HSD (litre/hr)(Run during power failure only)	-	Local Suppliers
Coal (MT/hr)	15	Indigenous

15. **Details of Process Emissions Generation and its Management:**

S. No.	Stack Attached	Fuel Used	Stack Height	Diameter	APCM	Expected Pollutants	Emission Norms
1	Boiler-1 (125 TPH)	Natural gas + Coal	100 m	3 m	ESP	PM, SO_2 & NO_x	PM < 100 mg/Nm^3, SOx < 600 mg/Nm^3, NOx< 400 mg/Nm^3
2	Boiler-2 (125 TPH)						
3	Boiler-3 (125 TPH)						
4	HRSG (Ammonia-I Plant)	Natural gas	30 m	2.8 m	-	PM, SO_2 & NO_x	
5	HRU (Ammonia-II Plant)	Natural gas	37 m	2.3 m	-	PM, SO_2 & NO_x	
6	DG Sets (2 x 2700 KVA)	HSD	30 m	1.0 m	-	PM, SO_2 & NO_x	-
Process Stacks / Vents							
1	Primary Reformer- I	Natural Gas	33 m	3.6 m	Low NOx Burner	NOx, SO2	NOx < 400 mg/Nm^3
2	Primary Reformer- II	Natural Gas	30 m	2.9 m	Low NOx Burner	NOx, SO2	NOx < 400 mg/Nm^3
3	Prilling Tower-I	-	96 m	22 m	-	PM, NH3	PM < 150 mg/Nm^3
4	Prilling Tower-II	-	104 m	26 m	-	PM, NH3	PM < 50 mg/Nm^3

16. **Details of Solid waste/ Hazardous waste generation and its management**.

Sr. No	Name of Waste	Source of Generation	Category No. (As per Sch-I&II 2016)	Quantity (MTPA)	Mode of Treatment & Disposal Method

1	Discarded Containers/Bags /Liners	Storage & Handling of Raw Materials	Sch-I/33.3	2000 Nos/ year	All the discarded drums / containers / bags shall be collected and stored in Scrap yard. From scrapyard, these shall be sold to authorized recycler.
2	Used/Spent Oil	Used/Spent Oil	Sch-I/5.1	205.6 KLPA	Used/spent oil shall be collected, stored at well identified scrapyard and then will be disposed by selling to Registered recycler.
3	ETP Sludge	In-house ETP	Sch-I/34.3	0.06	The sludge generated from the Effluent collection pits will be collected, dried and stored within the plant premises in HDPE bags and then disposed-off to TSDF Site through registered transporter
Process Waste					
4	Spent Catalyst	Process	Sch –I/ 18.1	197.6 MTPA	Collected and stored in MS drum / HDPE drums, Sold to UPPCB/CPCB approved registered recyclers.
5	Plastic Waste**	Bottling Manufacturing plant of Nano Fertilizer	-	20 MTPA	Recyclable waste will be sold off to different authorized Recyclers.
6	Fly Ash (Solid Waste)	Boiler	-	75000	Sent to Brick/Cement Manufacturer.

18. The capital cost and recurring cost earmarked towards the existing Environmental Management Plan (EMP) is ₹ 309 Lakhs (capital) and about ₹ 17 Lakhs per annum (Recurring). Industry proposes to allocate Rs. 1 Crores towards Corporate Environment Responsibility.

19. Industry has already developed greenbelt in an area of 35.2% i.e., **272.95 Acres** out of total area of the project.

20. The PP reported that the Project being applied under para 7(ii) of EIA Notification, 2006, public consultation is exempted for the project.

21. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment officials for the functioning of EMC.

22. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

23. No major additional cost under proposed modernization is envisaged as the change in raw material mix for Nano urea with change in product profile of Nano urea is proposed without any change in capacity or plant configuration Total Employment in the plant is approx. 1830 persons during operation phase. No further increase in employment is proposed.

24. **Deliberations by the EAC**

During deliberations, EAC discussed the following issues:

(i) PP submitted latest water audit report, 2023. The Committee noted that as per audit report, average water consumption for last 3 FY 2020-21, 2021-22 and 2022-23 are 31449 KLD, 30025 KLD and 31820 KLD. The Committee suggested to restrict fresh water requirement upto 31850 KLD instead of 35304 KLD for the entire plant. Committee felt that there is scope for optimise the recycling and reuse of effluent. It was suggested that PP shall explore use of surface water supply to reduce the burden on ground water. PP shall carry out rainwater harvesting for the equivalent quantity of ground water being extracted within 10 km radius. PP shall submit status of implementation of water conservation measures taken in six monthly basis to respective IRO.

(ii) PP submitted the water balance for pre monsoon and non-monsoon season along with the water conservation plan.

(iii) PP submitted the fly ash utilization. PP informed that during 2023-24, fly ash generation was 46202 MT and disposal was 91830 MT. The Committee suggested that flyash shall be collected in silo and handover to brick manufacturers and cement plant.

(iv) PP submitted the undertaking that no effluent/treated water shall be discharged outside the plant.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members /domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance with the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during the implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The expert members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its

subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

25. **The EAC, after detailed deliberations, recommended the project for the grant of environmental clearance under 7 (ii) , subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I:**

(i) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii) ESP alongwith Stack height of 100 m has been provided to the existing Natural gas and coal fired boilers (3 x 125 TPH) to control particulate matter as per CPCB norms; Stack height of 30 m has been provided to gas fired HRSG Ammonia plant-1; Stack height of 37 m has been provided to gas fired HRU Ammonia plant-2; Stack height of 30 m has been provided to DG sets (2*2700 KvA).

(iii) Fresh water requirement after modernisation shall not exceed 31850 KLD from groundwater source.

(iv) NOC from the Central Ground Water Authority shall be obtained before start of the construction of plant and drawing water from ground water source. State Pollution Control Board shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

(v) The industrial wastewater generated shall not exceed 9733 m^3/day. Industrial effluent shall be treated in the ETP followed by RO. Sewage shall be treated in the STP. Treated effluent shall be recycled for cooling tower make up. As proposed, the remaining treated effluent shall be reused for irrigation inside the CORDET and township areas and ash quenching & coal yard dust suppression etc. inside the plant premises after meeting the water quality for specific purposes.

(vi) Online pH, flow, Ammoniacal Nitrogen, etc should be installed and monitored for the said parameters. PP shall explore recycling/reuse of water in phase manner to reduce the discharge of treated water for horticulture. PP shall use 100 % recycled water for cooling make up water in order to reduce the dependence of fresh water from ground water source. PP shall explore to carry out

rain water harvesting within the 10 km study area equivalent to quantity of ground water extraction. PP shall submit status of implementation of water conservation measures taken in six monthly basis to respective IRO.

(vii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB.

(viii) The green belt has been developed in 272.95 acre (35.2% of the total plot area with tree density @ 2500 trees per hectares), mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(ix) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions by engaging Environment Officials. In addition to this, one safety & health officer as per the qualification given in Factories Act, 1948 shall be engaged within a month of grant of EC. The PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(x) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under existing EMP Rs. 309 Lakhs (Capital cost) and ₹ 17 Lakhs per Annum (Recurring cost)] shall be kept in a separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(xi) The total area of rooftop in IFFCO premises shall be 1097573.44 m^2. PP proposed to develop recharging facilities of approximately 88.9 lakhs m^3 per annum in the natural bodies situated in nearby areas of IFFCO Phulpur premise.

(xii) All the hazardous waste shall be managed and disposed as per Hazardous and other Waste (Management and Transboundary Movement) 2016. Hazardous waste such as ETP sludge shall be sent to TSDF. Spent catalyst shall be sent to Authorized recyclers. Municipal solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development. Generated Fly Ash shall be collected stored in silo and sold to cement industries and brick manufacturers.

(xiii) The PP shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(xiv) The project proponent shall comply with the environment norms for 'Fertilizer Industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 1607 (E), dated 29th December, 2017under the provisions of the Environment (Protection) Rules, 1986.

(xv) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.

(xvi) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xvii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xviii) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xix) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xx) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xxi) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

(xxii) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places.

(xxiii) Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Chemicals shall be stored in covered sheds and wind breaking walls/curtains shall be provided around coal storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xxiv) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 78.14

Proposed Expansion of Synthetic Organic Chemicals (3 MT/Month to 97 MT/Month) in Existing Manufacturing Unit of M/s. Kopran Research Laboratories Limited located at Plot No. 663, GIDC

Panoli, Taluka: Ankleshwar, District: Bharuch, Gujarat by M/s. Kopran Research Laboratories Limited –Consideration of EC

[Proposal No.: IA/GJ/IND3/460849/2024, File No.: IA-J-11011/369/2023-IA-II(I)]

1. The proposal is for the grant of Environmental Clearance to the Proposed Expansion of Synthetic Organic Chemicals (3 MT/Month to 97 MT/Month) in Existing Manufacturing Unit of M/s. Kopran Research Laboratories Limited located at Plot No. 663, GIDC Panoli, Taluka: Ankleshwar, District: Bharuch, Gujarat by M/s. Kopran Research Laboratories Limited

2. The project/activity is covered under Category 'B' of item 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, due to the applicability of general conditions i.e. project site is located within CPA, it requires appraisal at Central Level by the Expert Appraisal Committee (EAC).

3. The ToR was issued by the Ministry, vide letter no. IA-J-11011/369/2023-IA-II(I) dated 20.10.2023. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is an Expansion case. **The proposal is placed in 78th EAC meeting on 30th April, 2024, wherein, PP along with accredited Consultant, M/s. Aqua-Air Environmental Engineers Pvt. Ltd. (NABET/EIA/2023/SA 0196 Valid up to 08 April, 2024 (Extension of Validity of Accreditation till July 11, 2024)** made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that the Existing Land area is 8442 m^2. No additional land will be used for proposed expansion and no R& R is involved in the Project. The details of products to be manufactured are as follows:

Sr. No.	Name of Product	CAS No.	Existing	Proposed	Total	End Use
			MT/ Month			
1.	Ciprofloxacin	85721-33-1	3	0	3	Antibiotics
2.	Pregabalin	148553-50-8	0	8	8	Anti-Epilepsy drugs
3.	CMMHA	181289-33-8	0	30	30	Intermediate of Pregabalin

4.	CMMHA-R	148553-51-9	0	15	15	Intermediate of Pregabalin
5.	Ticagrelor	274693-27-5	0	2	2	Antibiotics drugs
6.	Canagliflozin	842133-18-0	0	1	1	Anti-diabetic drugs
7.	Dapagliflozin	461432-26-8	0	1	1	Anti-diabetic drugs
8.	Empagliflozin	864070-44-0	0	1	1	Anti-diabetic drugs
9.	Rivaroxaban	366789-02-8	0	1	1	Anti-platelets
10.	Apixaban	503612-47-3	0	1	1	Anti-Coagulant
10.1	Apixaban-KSM-I	503612-47-3	0			Anti-Coagulant
10.2	Apixaban KSM-II	503612-47-3	0			Anti-Coagulant
11.	Montelukast	158966-92-8	0	5	5	Anti-asthma drugs
12.	Clopidogrel Bisulphate	20202-66-6	0	7	7	Antiplatelet Drug
13.	Rosuvastatin Calcium	147098-20-2	0	2	2	Reduce the risk of heart attack
14.	Atenolol	29122-68-7	0	20	20	Hypertension
	Total		**3**	**94**	**97**	--

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under the E(P) Act/Air Act/Water Act.

6. The Unit has CTO before EIA Notification 2006. CTO vide order no. 537, date of issue 21/10/2003 on the name of M/s. Hiren Orgochem Limited. Later M/s. Maxheal Pharmaceuticals (India) Limited had purchased this plot in auction. Now the Maxheal Pharmaceuticals (India) Limited (Assignor) has transfer the said property to M/s. Kopran Research Laboratories Limited.

7. The unit had obtained Certified CCA Compliance Report from RO – GPCB, Gandhinagar has been obtained vide order no. GPCB/ANK-CCA-227(5)/ID-15184/781581 Dated 19/01/2024. Out of total 69 conditions, it may be seen that 61 are complied, 6 are not-applicable to the unit whereas 2 non-compliance has been observed. Action Taken Report has been submitted to RO - Gandhinagar, dated 26/02/2024

8. The PP reported that there are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger / Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance from the project site. River /water body Narmada is flowing at a distance of 18 km in North Direction. Total 5 numbers of the Schedule-1 Species found within 10 km distance from the project site. Names of Schedule-1 Species are Grey Mongoose, Shikra, Indian Peafowl, Indian Ratsnake, Indian Cobra. Conservation plan is submitted to the District Forest Officer Dated 16/12/2023.

9. The PP reported that the Ambient air quality monitoring was carried out at 9 locations during 1st October, 2022 to 31st December, 2022 and the baseline data indicates the ranges of concentrations as: PM_{10} (71.02 – 95.02 µg/m^3), $PM_{2.5}$ (40.12 – 47.24 µg/m^3), SO_2 (14.33 – 19.96 µg/m^3) and NO_2 (16.59 – 23.2 µg/m^3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.105 µg/m^3, 0.309 µg/m^3, 0.110 µg/m^3 with respect to PM_{10}, SO_2 and NO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

10. The PP reported that the Total water requirement is 299.2 m^3/day of which fresh water requirement of 83.53 m^3/day will be met from Panoli GIDC water supply. Industrial Effluent of 195.2 m^3/day quantity will be treated in ETP through Primary, Secondary, Tertiary Treatment followed by Solvent Stripper column, MEE and ATFD. **High COD Stream:** 71 m^3/day High COD effluent from process will be subjected to ETP followed by Solvent stripper column, MEE and ATFD. MEE condensate 85.67 m^3/day will be reused for Industrial Purpose. **Low COD Stream:** 96 m^3/day Low COD waste water from process along with 20.2 m^3/day Utility Waste Water will be treated in ETP and out of it 16.2 m^3/day treated effluent will be send to CETP of M/s. PETL as per existing discharge permission. Remaining 100 m^3/day will be send to RO. RO Permeate 79 m^3/day will be reuse for Industrial Purpose and 21 m^3/day of RO Reject will be send to In-house MEE. **Domestic Stream** 8 KL/Day Domestic Waste Water will be treated in STP and then reuse for gardening. The plant will not be based on Zero Liquid discharge system.

11. Power requirement after expansion will be 1000 KVA including existing KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has not any DG set. additionally, 1 No.

of 750 KVA DG set will be used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets.

12. Existing unit has 1 No. of 3 TPH Boiler. Additionally, 2 Nos. of 5 TPH Boiler will be installed. Adequate stack height and MCS + Water Scrubber with bag filter and stack height of 20 m and 30 m will be installed for controlling the particulate emissions within the statutory limit of 120 mg/Nm^3 for the proposed boilers.

13. **Details of fuel:**

Sr. No.	Name of Fuel	Existing Requirement	Proposed Requirement	Total Requirement
1	Natural Gas	27 m^3/hr = 270 m^3/day	400 m^3/day	670 m^3/day
2	Briquettes	--	30 MT/Day	30 MT/Day
3	HSD (In case of Emergency)	--	180 Lit/hr	180 Lit/hr

14. **Details of Process emissions generation and its management**

Flue Gas Stack

No.	Stack Attached to	Type of Fuel	Fuel Quantity	APCM	Height (Meter)	Pollutant
Existing						
1.	Boiler (3 TPH)	Natural Gas	27 m^3/hr = 270 m^3/day	Adequate Stack Height	20	PM – 120 mg/Nm^3 SO_2 - 80 ppm NO_x – 40 ppm
Proposed						

1.	Boiler (5 TPH)	Natural Gas	400 m^3/day	Adequate Stack Height	30	PM – 120 mg/Nm^3 SO_2 - 80 ppm NO_x – 40 ppm
2.	Boiler (5 TPH)	Briquette	30 MT/Day	MCS + Water Scrubber with Bag Filter	30	PM – 120 mg/Nm^3 SO_2 - 80 ppm NO_x – 40 ppm
3.	D.G. Set (750 kVA) * 1 Nos.	HSD	180 Lit/Hr	Adequate Stack Height	11	PM – 120 mg/Nm^3 SO_2 - 80 ppm NO_x – 40 ppm

Process Gas Stack

Sr. No.	**Vent Attached to**	**Vent Height (Meter)**	**APCM**	**Parameter**
Existing				
In Existing Scenario, there is no process gas emission from the manufacturing process and other ancillary industrial operations.				
Proposed				
1.	Reaction Vessel – 1	11	Two-stage water scrubber	NH_3
2.	Reaction Vessel – 2	11	Two-stage Water Scrubber	Thionyl Chloride / HCl

15. **Details of Solid waste/ Hazardous waste generation and its management.**

Details of Hazardous Waste and its Disposal

				Existing	**Proposed**	**Total**	**Disposal method**

Sr. No.	Type/Name of Hazardous waste	Specific Source of generation	Category and Schedule as per HW Rules.	Quantity (MT/Annum)			
1.	ETP sludge	ETP	Sch-I/ 35.3	10.8	182	192.8	Collection, Storage, Transportation and disposal at common TSDF
2.	Discarded drums	Storage & Handling of Raw Material	Sch-I/ 33.1	792	0	792	Collection, Storage, Transportation and selling to authorized recyclers.
	Liners/ HDPE Bags			2232	0	2232	
3.	Spent Carbon with Hyflow	Process	Sch-I-(28.3)	3.6	0	3.6	Collection, Storage, Transportation and send for co-processing in cement industry or sent to nearest common incineration site.
4.	Spent Mother Liquor	Process	Sch-I-(28.5)	432 KL	0	432 KL	Collection, Storage, Transportation and send for co-processing in cement industry or sent to nearest common incineration site.

5.	Date Expired Drugs / Medicine	Process	Sch-I-(28.4)	0.599	0	0.599	Collection, Storage, Transportation and send to nearest common incineration site.
6.	Organic Residue	Process	Sch-I-(28.1)	0	206.4	206.4	Collection, Storage, Transportation and send for co-processing in cement industry or sent to nearest common incineration site.
7.	Inorganic Waste	Process	Sch-I-(28.1)	0	4.8	4.8	Collection, storage, within factory premises and transportation and disposal at common TSDF
8.	Sodium Sulphate	Process	Sch-I-(28.1)	0	4	4	Collection, Storage, Transportation & Disposal by selling to authorized end users having Rule 9 Permission.
9.	Stripper Residue	Solvent Stripper	Sch-I-(28.1)	0	255.6	255.6	Collection, Storage, Transportation and send for co-

							processing in cement industry or sent to nearest common incineration site.
10.	MEE Salt	MEE	Sch-I/ 35.3	0	1090.8	1090.8	Collection, storage, within factory premises and transportation and disposal at common TSDF
11.	Used Or Spent Oil	Equipment & Machineries	Sch-I/ 33.1	--	0.5	0.5	Collection, Storage, Transportation & Sale to Register Re-Processors.

Details of Non-Hazardous Waste

Sr. No.	Name of Non-Hazardous Waste	Specific Source of Generation	Quantity (MT/Annum)			Disposal Method
			Existing	Proposed	Total	
1.	Fly Ash	Utility	0	495	495	Collection, Storage, Transportation and sell to Brick Manufacturer.
2.	STP Sludge	STP	0	3	3	Collection, Storage, Transportation and disposal at common TSDF.
3.	Plastic waste	RM Packing material	0	3.6	3.6	Collection, Storage, Transportation and

						disposal to authorized vendor.
4.	E-Waste	Electrical maintenance/ Replacement	0	1	1	Collection, storage, transportation and disposal by sell it to approved/registered E-waste recycler.
5.	Bio-Medical Waste	OHC	0	0.2	0.2	Collection, storage, transportation and sent to authorized bio-medical waste treatment facility.
6.	Used Batteries	After discharging	0	5	5	Collection, Storage and sold to approved Recyclers
7.	Municipal Solid Waste (Dry Waste)	Canteen, Stationary, Pantry, etc.	0	1	1	Collection, Storage, Transportation and send to municipal solid waste site.
	Municipal Solid Waste (Wet Waste)					Collection, Storage, Transportation and compost in-house and used as Organic Manure for green belt development.

16. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 4.32 Crores (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 2.02 Crores per annum. Industry proposes to allocate ₹ 65.30 Lakhs towards CER.

17. Industry has already developed greenbelt in an area of 27.7% i.e. 2338.7 m^2 out of total area of the project. Additionally, 29.6% i.e. 2500 m^2 area is also developed at the GIDC allotted place. Total 57.3% i.e 4835.7 Sq. Meter area is developed as Greenbelt.

18. The PP reported that the project, being located within a notified industrial area i.e., GIDC Industrial Area, Panoli (**Notification no. GHU-98-GID-1098-2094-G: dated 18.11.1998**), is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

19. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment officials mentioned in the EIA/EMP for the functioning of EMC.

20. The PP submitted the Onsite and Offsite disaster management plans in the EIA report.

21. The estimated project cost is Rs. 43.65 Crores including additional investment of Rs. 32.65 Crores. Total employment will be 125 persons as direct and indirect after expansion.

22. **Deliberations by the EAC:**

During deliberations, EAC discussed the following issues:

(i) PP submitted the action plan to comply with the following mitigation measures as Per Ministry's Office Memorandum 31st October, 2019 regarding Projects located in Critically Polluted Area

<table>
<tr><th>Sr. No.</th><th>Conditions</th><th>Existing Compliance Status</th><th>After Expansion Compliance Status</th></tr>
<tr><td></td><td>Air</td><td></td><td></td></tr>
<tr><td>i.</td><td>Stack emission levels should be stringent that the existing standards in terms of the identified critical pollutants.</td><td>As per GPCB consent vide order no. AWH-124281 Date of Issue 08/02/2023 and valid up to 09/07/2026.
<table>
<tr><th>Sr. No.</th><th>Stack Attached to</th><th>Stack Height</th><th>Fuel & Quantity</th><th>APCM</th><th>Limit</th></tr>
<tr><td>1</td><td>Boiler (3 TPH)</td><td>20 Meter</td><td>Natural Gas – 27 m^3/hr.</td><td>Adequate Stack height</td><td>PM – 150 mg/nm^3 SO_2 – 100 ppm</td></tr>
</table></td><td>As per GPCB consent vide order no. AWH-124281 Date of Issue 08/02/2023 and valid up to 09/07/2026.
<table>
<tr><th>Sr. No.</th><th>Stack Attached to</th><th>Stack Height</th><th>Fuel & Quantity</th><th>APCM</th><th>Limit</th></tr>
<tr><td colspan="6">Existing</td></tr>
<tr><td>1</td><td>Boiler (3 TPH)</td><td>20 Meter</td><td>Natural Gas – 27 m^3/hr.</td><td>Adequate Stack height</td><td>PM – 120 mg/nm^3 SO_2 – 80 ppm</td></tr>
</table></td></tr>
</table>

						NO_x – 50 ppm

Note: - Unit is not in operation so monitoring reports are not available.

Process Gas Emission

In Existing Plant, there is no process gas emission from the manufacturing process and any other ancillary industrial operation through various stacks/ vent of reactors, process, vessel from plant premises.

					NO_x – 40 ppm
Proposed					
1	Boiler (5 TPH)	20 Meter	Natural Gas - 400 m^3/Hr	Adequate Stack height	PM – 120 mg/nm^3 SO_2 – 80 ppm NO_x – 40 ppm
2	Boiler (5 TPH)	30 Meter	Briquette - 30 MT/Day	MCS + Water scrubber with Bag filter	PM – 120 mg/nm^3 SO_2 – 80 ppm NO_x – 40 ppm
3	D.G Set (750 KVA) * 1 Nos.	11 Meter	HSD - 180 Lit/Hr	Adequate Stack height	PM – 120 mg/nm^3 SO_2 – 80 ppm NO_x – 40 ppm

Unit will achieve 80% of the flue gas emission standard as per the CEPI guidelines.

Process Gas Emission

Sr. No.	Vent Attached to	Vent Height	APCM	Type of Emission	Limit

			1	Reaction Vessel – 1	11	Two-Stage Water Scrubber	NH_3	140 - mg/nm^3
			2	Reaction Vessel - 2	11	Two-Stage Alkali Scrubber	Thionyl Chloride/ HCl	16 - mg/nm^3
			--						
ii.	CEMS may be installed in all large/ medium red category industries (air pollutin g) and connected to SPCB and CPCB server	Unit is not in operation.	After Expansion, CEMS will be installed.						
iii.	Effective fugitive emission control	Unit is not in operation.	1. Airborne dust at all transfers operations/ points will be controlled either by spraying water or providing enclosures. 2. Adequate ventilation will be provided.						

	measures should be imposed in the process, transportation, packing, etc.		3. Regular maintenance of valves, pumps, flanges, joints and other equipment will be done to prevent leakages and thus minimizing the fugitive emissions of VOCs. 4. Entire process will be carried out in the closed reactors with proper maintenance of pressure and temperature. 5. Periodic monitoring of work area will be carried out to check the fugitive emission. 6. To eliminate chances of leakages from glands of pumps, mechanical seal will be provided at all solvent pumps. 7. Stand by pumps will be provided for better operational control. 8. Close feeding system will be provided for centrifuges. 9. Minimum number of flanges, joints and valves in pipelines. 10. Regular inspection of floating roof seals and proper preventive maintenance of roofs and seals for tanks. 11. Fugitive emission over reactors, formulation areas, centrifuges, chemical loading, transfer area will be collected through hoods and ducts by induced draft and controlled by dust collector. 12. Dedicated scrubber system will be provided for fugitive emissions to control. 13. Enclosures to chemical storage area, collection of emission from loading of raw materials in particular solvents through hoods and ducts by induced draft, and control by scrubber / dust collector to be ensured.
iv.	Transportation of materials by rail/ convey	Unit is not in operation.	After Proposed Expansion, ▪ Local Raw materials will be transported by road. (covered with tarpaulin) ▪ Transportation of raw materials by only authorized vehicles.

<table>
<tr><td></td><td>or belt, wherever feasible.</td><td></td><td>▪ Vehicles having PUC certificates will be allowed to transport.
▪ Materials will be closed/ covered with a tarpaulin sheet to avoid dust dispersion at road & site.
▪ Regular training will be conducted for drivers
▪ Awareness program will be Organized
▪ MSDS and TREM card will be Implemented.</td></tr>
<tr><td>v.</td><td>Encourage use of cleaner fuels (pet coke/ furnace oil / LSHS may be avoided).</td><td>Type of fuel as per GPCB consent vide order no. AWH-124281 Date of Issue 08/02/2023 and valid up to 09/07/2026.<table><tr><td>Sr. No.</td><td>Stack Attached to</td><td>Fuel</td></tr><tr><td>1</td><td>Boiler (3 TPH)</td><td>Natural Gas – 27 m^3/hr.</td></tr></table>Unit is not using pet coke / furnace oil / LSHS as fuel as Unit is not in operation</td><td>Fuel Consumption (After Expansion)<table><tr><td>Sr. No.</td><td>Stack Attached to</td><td>Fuel</td></tr><tr><td>1</td><td>Boiler (3 TPH)</td><td>Natural Gas – 27 m^3/hr.</td></tr><tr><td>2</td><td>Boiler (5 TPH)</td><td>Natural Gas - 400 m^3/day.</td></tr><tr><td>3</td><td>Boiler (5 TPH)</td><td>Briquette - 30 MT/Day</td></tr><tr><td>4</td><td>D.G Set (750 KVA) * 1 Nos.</td><td>HSD - 180 Lit/hr.</td></tr></table>Unit will not use pet coke / furnace oil / LSHS as fuel.</td></tr>
<tr><td>vi.</td><td>Best available technology may be used. For example, usage of EAF / SAF / IF in place of Cupola furnace. Usage of supercri</td><td>Unit is not in operation.</td><td>After Proposed expansion, Unit will adopt the latest and best technology for additional production with automated machinery over manual machinery available so far in the market to achieve maximum yield with minimum pollution generation and fugitive emissions.

Energy-Efficient Manufacturing: Implementing energy-efficient technologies, like LED lighting, advanced HVAC systems, and efficient machinery, can significantly reduce energy consumption in production facilities.
▪ Solar Energy: Integrating renewable energy sources, like solar panels, into manufacturing facilities can help reduce reliance on fossil fuels and decrease greenhouse gas emissions.</td></tr>
</table>

<table>
<tr>
<td></td>
<td>tical technology in place of sub-critical technology.</td>
<td></td>
<td>

Lean Manufacturing: Implementing lean principles can minimize waste in the production process by optimizing workflows, reducing overproduction, and using resources more efficiently.
Water Recycling: Reusing and recycling water in manufacturing processes can conserve this precious resource and reduce wastewater disposal.
Sustainable Packaging: Choosing eco-friendly packaging materials and designs, such as biodegradable or recyclable options, can reduce the environmental impact of a product's entire lifecycle.
Closed-Loop Systems: Implementing closed-loop manufacturing processes, where waste is minimized, and materials are continuously recycled, can significantly reduce resource consumption and waste.
Product Design for Sustainability: Integrating eco-friendly features into product design, such as modular components for easier repair, can extend the product's lifespan and reduce waste.
Recycling and Waste Management: Properly managing and recycling waste generated during production can reduce the environmental impact of manufacturing operations.

</td>
</tr>
<tr>
<td>vii.</td>
<td>Increase of green belt cover by 40 % of the total land area beyond the</td>
<td>Total 8442 Sq. Meter Land area is available at site and out of which 2338.7 Sq. Meter (27.7%) area is already developed as Greenbelt.
Type and Nos. of Trees within Premises
<table>
<tr><th>Scientific Name</th><th>Common Name</th><th>Total Nos.</th></tr>
<tr><td>Pongamia Pinnata</td><td>Karanj</td><td>100</td></tr>
<tr><td>Delonix Regia</td><td>Gulmohar</td><td>100</td></tr>
</table>
</td>
<td>Total 8442 Sq. Meter Land area is available at site and out of which 2338.7 Sq. Meter (27.7%) area is already developed as Greenbelt and 2500 Sq. meter i.e. 29.6% in the GIDC allotted place. Unit has developed Greenbelt in an area of 57.3%. i.e. 4835.7 Sq. Meter.
Type and Nos. of Trees outside Premises (GIDC Allotted Place)
<table>
<tr><th>Scientific Name</th><th>Common Name</th><th>Total Nos.</th></tr>
</table>
</td>
</tr>
</table>

	permissible requirement of 33% wherever feasible	Pelataphorum Pterocarpum – Yellow Flame - tree – 100 Vachellia Nilotica – Babul – 79 Samanea Saman – Rain Tree – 105 Azadirachta Indica – Neem – 100 **584**	Pongamia Pinnata – Karanj – 100 Delonix Regia – Gulmohar – 100 Pelataphorum Pterocarpum – Yellow Flame-tree – 100 Vachellia Nilotica – Babul – 100 Samanea Saman – Rain Tree – 105 Azadirachta Indica – Neem – 45 Bauhinia variegate – Kanchan – 30 Dalbergia sissoo – Shisham – 35 Terminalia bellirica – Baheda – 10
viii.	Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.	2500 Sq. Meter area is developed as Greenbelt at GIDC allotted place.	2500 Sq. Meter area will be maintained as Greenbelt at GIDC allotted place.
ix.	Assessment of carrying	Unit is not in operation.	Project site is located within GIDC Panoli. The GIDC has provided roads with 12 m width and sufficient carrying capacity.

<table>
<tr><td></td><td>capacity of transportation load on roads inside the industrial premises. If the roads required to be widened, shall be prescribed as a condition.</td><td></td><td>Unit will follow the guideline for transporting industrial products / raw materials.</td></tr>
<tr><td></td><td>Water</td><td></td><td></td></tr>
<tr><td>i.</td><td>Reuse/ recycle of treated wastewater, wherever feasible</td><td>Details of Water Consumption and Waste Water Generation as per GPCB consent vide order no. AWH-124281 Date of Issue 08/02/2023 and valid up to 09/07/2026.
<table>
<tr><th rowspan="2">Sr. No.</th><th rowspan="2">Particulars</th><th>Water Consumption (KL/Day)</th><th>Waste Water Generation (KL/Day)</th></tr>
<tr><th>Existing</th><th>Existing</th></tr>
<tr><td>1</td><td>Domestic</td><td>6.6</td><td>1.8</td></tr>
<tr><td>2</td><td>Gardening</td><td>9</td><td>--</td></tr>
<tr><td>3</td><td>Industrial</td><td></td><td></td></tr>
<tr><td></td><td>a) Process</td><td>5</td><td>13</td></tr>
<tr><td></td><td>b) Washing</td><td>3</td><td>1.2</td></tr>
<tr><td></td><td>c) Cooling</td><td>6.2</td><td>1</td></tr>
<tr><td></td><td>d) Boiler</td><td>8</td><td>1</td></tr>
<tr><td></td><td>Sub Total (a + b + c + d)</td><td>22.2</td><td>16.2</td></tr>
<tr><td></td><td>Grand Total (1+2+3)</td><td>37.8</td><td>18</td></tr>
</table></td><td>Details of Water Consumption and Waste Water Generation as per GPCB consent vide order no. AWH-124281 Date of Issue 08/02/2023 and valid up to 09/07/2026.
<table>
<tr><th>Sr. No.</th><th>Particulars</th><th>Water Consumption (KL/Day)</th><th>Waste Water Generation (KL/Day)</th></tr>
<tr><td>1</td><td>Domestic</td><td>10 F</td><td>8</td></tr>
<tr><td>2</td><td>Gardening</td><td>9
(1 F + 8 R)</td><td>--</td></tr>
<tr><td>3</td><td>Industrial</td><td></td><td></td></tr>
<tr><td></td><td>a) Process</td><td>147
(37.33 F + 109.67 R)</td><td>167</td></tr>
<tr><td></td><td>b) Washing</td><td>9
(4 F + 5 R)</td><td>7.2</td></tr>
<tr><td></td><td>c) Cooling</td><td>56.2
(6.2 F + 50 R)</td><td>6</td></tr>
</table></td></tr>
</table>

		In Existing, there is no water consumption and waste water generation because unit is not in operation.	<table><tr><td></td><td>d) Boiler</td><td>68 (25 F + 43 R)</td><td>7</td></tr><tr><td></td><td>**Sub Total (a + b + c + d)**</td><td>**280.2**</td><td>**187.2**</td></tr><tr><td></td><td>**Grand Total (1+2+3)**</td><td>**299.2** (83.53 F + 215.67 R)</td><td>**195.2**</td></tr></table> Hence, 215.67 KL/Day Water will be recycled after proposed expansion. *Note: R: Recycle water, F: Fresh Water*
ii.	Continuous monitoring of effluent quality / quantity in large and medium red category industries (water pollutin g).	Unit is not in operation.	After Expansion, CEMS will be installed.
iii.	A detailed water-harvesting plan may be submitted by the project proponent.	In Existing Scenario, Rainwater harvesting system is not envisaged as unit is not in operation.	▪ Due to critical zone Rainwater harvesting system is not envisaged. However, we are assured that we will built rain water harvesting system in nearby village as part of CER activity. ▪ Additionally, Rainwater from the rooftop will be collected and tested, if the parameters of the rainwater will be as per the standards, the water from rooftop will be used for utilities purpose otherwise it will be sent for further treatment.

<table>
<tr>
<td>iv.</td>
<td>Zero liquid discharge wherever techno economically feasible.</td>
<td>Details of Waste Water Generation as per GPCB consent vide order no. AWH-124281 Date of Issue 08/02/2023 and valid up to 09/07/2026.
<table>
<tr><th>Sr. No.</th><th>Particulars</th><th>Waste Water Generation (KL/Day)</th></tr>
<tr><th></th><th></th><th>Existing</th></tr>
<tr><td>1</td><td>Domestic</td><td>1.8</td></tr>
<tr><td>2</td><td>Gardening</td><td>--</td></tr>
<tr><td>3</td><td>Industrial</td><td></td></tr>
<tr><td></td><td>a) Process</td><td>13</td></tr>
<tr><td></td><td>b) Washing</td><td>1.2</td></tr>
<tr><td></td><td>c) Cooling</td><td>1</td></tr>
<tr><td></td><td>d) Boiler</td><td>1</td></tr>
<tr><td></td><td>Sub Total (a + b + c + d)</td><td>16.2</td></tr>
<tr><td></td><td>Grand Total (1+2+3)</td><td>18</td></tr>
</table>
In Existing, there is no waste water generation because unit is not in operation.</td>
<td>After Expansion, Total waste water generation will be 195.2 KL/Day (Industrial: 187.2 KL/Day + Domestic: 8 KL/Day).

High COD Stream:
71 KL/Day High COD effluent from process will be subjected to ETP followed by Solvent stripper column, MEE and ATFD. MEE condensate 85.67 KL/Day will be reused for Industrial Purpose.

Low COD Stream:
96 KL/Day Low COD waste water from process along with 20.2 KL/Day Utility Waste Water will be treated in ETP and out of it 16.2 KL/Day treated effluent will be send to CETP of M/s. PETL as per existing discharge permission. Remaining 100 KL/Day will be send to RO. RO Permeate 79 KL/Day will be reuse for Industrial Purpose and 21 KL/Day of RO Reject will be send to In-house MEE.

Domestic Stream
8 KL/Day Domestic Waste Water will be treated in STP and then reuse for gardening.
<table>
<tr><th>Sr. No.</th><th>Particulars</th><th>Water Consumption (KL/Day)</th><th>Waste Water Generation (KL/Day)</th></tr>
<tr><td>1</td><td>Domestic</td><td>10 F</td><td>8</td></tr>
<tr><td>2</td><td>Gardening</td><td>9
(1 F + 8 R)</td><td>--</td></tr>
<tr><td>3</td><td>Industrial</td><td></td><td></td></tr>
<tr><td></td><td>a) Process</td><td>147
(37.33 F + 109.67 R)</td><td>167</td></tr>
<tr><td></td><td>b) Washing</td><td>9
(4 F + 5 R)</td><td>7.2</td></tr>
<tr><td></td><td>c) Cooling</td><td>56.2
(6.2 F + 50 R)</td><td>6</td></tr>
<tr><td></td><td>d) Boiler</td><td>68
(25 F + 43 R)</td><td>7</td></tr>
</table>
</td>
</tr>
</table>

			Sub Total (a + b + c + d) | **280.2** | **187.2** **Grand Total (1+2+3)** | **299.2** (83.53 F + 215.67 R) | **195.2** Hence, 215.67 KL/Day Water will be recycled after proposed expansion. *Note: R: Recycle water, F: Fresh Water*
v.	In case, domestic wastewater generation is more than 10 KLD, the industry may install STP.	Domestic Waste Water is 1.8 KL/Day and it is disposed off through septic tank / soak pit system.	Domestic Waste Water will be 8 KL/Day and it is subjected to STP and after treatment it will be reused in greenbelt.
	Land		
i.	Increase of green belt cover by 40 % of the total land area beyond the permiss	Total 8442 Sq. Meter Land area is available at site and out of which 2338.7 Sq. Meter (27.7%) area is already developed as Greenbelt. **Type and Nos. of Trees within Premises** **Scientific Name** | **Common Name** | **Total Nos.** Pongamia Pinnata | Karanj | 100 Delonix Regia | Gulmohar | 100	Total 8442 Sq. Meter Land area is available at site and out of which 2338.7 Sq. Meter (27.7%) area is already developed as Greenbelt and 2500 Sq. meter i.e. 29.6% in the GIDC allotted place. Unit has developed Greenbelt in an area of 57.3%. i.e. 4835.7 Sq. Meter. Type and Nos. of Trees outside Premises (GIDC Allotted Place) **Scientific Name** | **Common Name** | **Total Nos.** Pongamia Pinnata | Karanj | 100

<table>
<tr>
<td></td>
<td>ible requirement of 33%, wherever, feasible for new projects.</td>
<td>
<table>
<tr><td>Pelataphorum Pterocarpum</td><td>Yellow Flame - tree</td><td>100</td></tr>
<tr><td>Vachellia Nilotica</td><td>Babul</td><td>79</td></tr>
<tr><td>Samanea Saman</td><td>Rain Tree</td><td>105</td></tr>
<tr><td>Azadirachta Indica</td><td>Neem</td><td>100</td></tr>
<tr><td></td><td></td><td>584</td></tr>
</table>
</td>
<td>
<table>
<tr><td>Delonix Regia</td><td>Gulmohar</td><td>100</td></tr>
<tr><td>Pelataphorum Pterocarpum</td><td>Yellow Flame-tree</td><td>100</td></tr>
<tr><td>Vachellia Nilotica</td><td>Babul</td><td>100</td></tr>
<tr><td>Samanea Saman</td><td>Rain Tree</td><td>105</td></tr>
<tr><td>Azadirachta Indica</td><td>Neem</td><td>45</td></tr>
<tr><td>Bauhinia variegate</td><td>Kanchan</td><td>30</td></tr>
<tr><td>Dalbergia sissoo</td><td>Shisham</td><td>35</td></tr>
<tr><td>Terminalia bellirica</td><td>Baheda</td><td>10</td></tr>
</table>
</td>
</tr>
<tr>
<td>ii.</td>
<td>Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.</td>
<td>2500 Sq. Meter area is developed as Greenbelt at GIDC allotted place.</td>
<td>2500 Sq. Meter area will be maintained as Greenbelt at GIDC allotted place.</td>
</tr>
<tr>
<td>iii.</td>
<td>Dumping of waste (fly ash slag, red mud, etc.)</td>
<td>In Existing Scenario, No Fly Ash is generated.</td>
<td>Fly Ash will be collected, stored, transported and sell to Brick Manufacturer
<table>
<tr><th>Sr. No.</th><th>Name of Waste</th><th>Source of Generation</th><th>Quantity MT/ Year</th><th>Disposal Method</th></tr>
</table>
</td>
</tr>
</table>

<table>
<tr>
<td></td>
<td>may be permitted only at designated location approved by SPCBs / PCCs.</td>
<td></td>
<td>
<table>
<tr><td>1.</td><td>Fly Ash</td><td>Utility</td><td>495</td><td>Collection, Storage, transportation and sell to Brick Manufacturer.</td></tr>
</table>
</td>
</tr>
<tr>
<td>iv.</td>
<td>More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in co-processing.</td>
<td>Details of Hazardous Waste generation as per GPCB consent vide order no. AWH-124281 Date of Issue 08/02/2023 and valid up to 09/07/2026.
<table>
<tr><th>Sr. No.</th><th>Name of Hazardous waste</th><th>Specific Source of generation</th><th>Category and Schedule as per HW Rules.</th><th>Quantity (MT/ Annum)</th><th>Disposal method</th></tr>
<tr><td>1.</td><td>ETP sludge</td><td>ETP</td><td>Sch-I/ 35.3</td><td>10.8</td><td>Collection, Storage, Transportation and disposal at common TSDF</td></tr>
<tr><td rowspan="2">2</td><td>Discarded drums</td><td rowspan="2">Storage & Handling of Raw Material</td><td rowspan="2">Sch-I/ 33.1</td><td>792</td><td rowspan="2">Collection, Storage, Transportation and selling</td></tr>
<tr><td>Liners/ HDP</td><td>2232</td></tr>
</table>
</td>
<td>The Unit will follow HWR, 2016 for Waste generation, collection, storage, transportation and disposal.

Hazardous Waste will be dispose as per the Hazardous and other Wastes (Management and Transboundary Movement) Rules 2016.
<table>
<tr><th>Sr. No.</th><th>Type/ Name of Hazardous waste</th><th>Specific Source of generation</th><th>Category and Schedule as per HW Rules.</th><th>Quantity (MT/Annum)</th><th>Disposal method</th></tr>
<tr><td>1.</td><td>ETP sludge</td><td>ETP</td><td>Sch-I/ 35.3</td><td>192.8</td><td rowspan="4">Collection, Storage, Transportation and disposal at common TSDF</td></tr>
<tr><td>2.</td><td>MEE Salt</td><td>MEE</td><td>Sch-I/ 35.3</td><td>1090.8</td></tr>
<tr><td>3.</td><td>Inorganic Waste</td><td>Process</td><td>Sch-I-(28.1)</td><td>4.8</td></tr>
<tr><td rowspan="2">4.</td><td>Discarded drums</td><td rowspan="2">Storage & Handling of Raw</td><td rowspan="2">Sch-I/ 33.1</td><td>792</td></tr>
<tr><td>Liners/</td><td>2232</td><td>Collection, Storage, Transp</td></tr>
</table>
</td>
</tr>
</table>

			E Bags				to authorized recyclers.		HDPE Bags	Material			ortation and selling to authorized recyclers.
		3.	Spent Carbon with Hyflow	Process	Sch-I-28.3	3.6	Collection, Storage, Transportation and send for co-processing in cement industry or sent to nearest common incineration site.	5.	Spent Carbon with Hyflow	Process	Sch-I-(28.3)	3.6	Collection, Storage, Transportation and send for co-processing in cement industry or sent to nearest common incineration site.
								6.	Spent Mother Liquor	Process	Sch-I-(28.5)	432 KL	
								7.	Organic Residue	Process	Sch-I-(28.1)	206.4	
		4.	Spent Mother Liquor	Process	Sch-I-28.5	432 KL	Collection, Storage, Transportation and send for co-processing in cement industry or sent to nearest common	8.	Stripper Residue	Solvent Stripper	Sch-I-(28.1)	255.6	
								9.	Date Expired Drugs / Medicine	Process	Sch-I-(28.4)	0.599	Collection, Storage, Transportation and send to nearest common incineration site.

							incineration site.	10.	Sodium Sulphate	Process	Sch-I-(28.1)	4	Collection, Storage, Transportation & Disposal by selling to authorized end users having Rule 9 Permission.
			5.	Date Expired Drugs / Medicine	Process	Sch-I-28.4	0.599	Collection, Storage, Transportation and send to nearest common incineration site.	11.	Used Or Spent Oil	Equipment & Machineries	Sch-I/ 33.1	0.5	Collection, Storage, Transportation & Sale to Register Re-Processors.
	Others													
i.	Monitoring of compliance of EC conditions may be submitted with third party	Not Applicable.						After the proposed expansion / receipt of EC, monitoring compliance with the EC conditions will be carried out, and compliance reports will be submitted regularly to the respective authorities.						

<table>
<tr><td></td><td>audit every year.</td><td></td><td></td></tr>
<tr><td>ii.</td><td>The % of the CER may be at least 1.5 times the slabs given in the OM dated 01. 05. 2018 for SPA and 2 times for CPA in case of Environmental Clearance. 1.5 times the slabs in far Severely Polluted Area</td><td>At present no any kind of CER applicable to this unit. for the proposed expansion, unit will allot the CER cost as per applicable rules.</td><td>As per OM dated 1/5/2018, fund allotted for CER activity will be 1% of additional capital investment (Brown Field Project).

As project falls under CEPI area, unit will allot additional 1% fund towards CER activity. Therefore, total fund allotted will be 2% of investment, which will be Rs. 65.3 Lakhs.

A budget of Rs. 65.3 lakhs would be utilized for CER programs
<table>
<tr><th>Sr. No.</th><th>Activity</th><th>Cost (In Lakhs)</th></tr>
<tr><td>1.</td><td>625 Nos. of Tree Plantated in GIDC</td><td>4.3</td></tr>
<tr><td>2.</td><td>2000 Nos. of Tree Plantation in nearby Village</td><td>14</td></tr>
<tr><td>3.</td><td>Installation of RO Plant in nearby village</td><td>15</td></tr>
<tr><td>4.</td><td>Provision of Solar Photovoltaic electricity generation system in schools of nearby villages (66 kW)</td><td>32</td></tr>
<tr><td></td><td>Total</td><td>65.30akhs</td></tr>
</table></td></tr>
</table>

	2 times for Criticall y polluted area		

Further, the Committee noted that PP has not elaborated EMP in chapter 10 of the EIA report. Accordingly, the Committee suggested that Consultant shall provide quantified measures to be taken for air pollution control (utilities & process & fugitive emission); Wastewater management; Greenbelt Development; solid waste management; Noise Environment; capital and recurring cost earmarked for EMP including CER; Post monitoring plan in Environment Management Plan chapter 10 of EIA report.

In view of the above, proposal was deferred for incorporation of above information in the EIA report. Accordingly, Proposal was deferred.

Agenda No. 78.15

Proposed Nano Fertilizer (Nano DAP/Nano Urea (4 to 20% of Nitrogen content) Manufacturing Plant" at L-3, L-2 (a), L-2 (b) & L-2 (c), Industrial Area Jasidih, Deoghar, Jharkhand-814142 by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO). - Consideration of Environmental Clearance

[Proposal No: IA/JH/IND3/463596/2024; F. No. IA-J-11011/366/2023-IA-II(I)]

1. The proposal is for the Environmental Clearance to the Proposed Nano Fertilizer (Nano DAP/Nano Urea (4 to 20% of Nitrogen content) Manufacturing Plant" at L-3, L-2 (a), L-2 (b) & L-2 (c), Industrial Area Jasidih, Deoghar, Jharkhand-814142 by Indian Farmers Fertiliser Cooperative Limited (IFFCO).

2. The project/activity is covered under Category 'A' of item 5(a), Chemical Fertilizer industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended).

3. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The TOR has been issued by Ministry vide letter No. IA-J-11011/366/2023-IA-II(I) dated 10.11.2023. Thereafter, amendment in TOR was taken from MoEF&CC The amendment has been issued by Ministry vide letter No. IA-J-11011/366/2023-IA-II(I) dated 18.02.2024 The PP in the Form reported that it is a Fresh EC case**.** The proposal is placed in this 78^{h} EAC meeting on 30th April, 2024, wherein the PP along with accredited Consultant, M/s EQMS Global Pvt. Ltd, (NABET Accreditation No.: NABET/EIA/2225/RA 0303 Valid Upto- 23.11.2025] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that the total plot area of the proposed plant is 80937 sq.m (20 Acres) and has been allotted by Jharkhand Industrial Area Development Authority and no R& R is involved in the Project.The details of products to be manufactured are as follows:

Product	Unit	Details
Nano-Urea (4 to 20% of nitrogen content)/ Nano-DAP	KL per Annum	36,500

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under the E(P) Act/Air Act/Water Act.

6. The PP reported that There are no ecologically sensitive areas or protected areas located around the project site. The nearest wildlife sanctuary/protected area from the project site is Topichanchi Wildlife Sanctuary located 84.17 km, SW from the project site. However, there are several protected forests located in the 10 km study area of the project. The nearest protected forest to the project site is located 2.13 km SW. Forest Divison Deogahr vide letter dated 15.3.2024 clarifies that there is no notified forest land related to 292, 283, 294,284,285,286,287,288,289,290,291,292. Additionally, there are several rivers flowing nearby the proposed project site like Kutbia River (0.71 km, W), Darwah River (4.14 km, SE), Ajay River (5.13 km, SSE), Chhiurinah River (7.00 Km, N), and Chhatmi River (8.67 Km, NE). Jungle Cat, Prcupine, Sloth Bear, Russel's Viperwhich is Schedule-I species have been identified in the study area. PP has submitted the copy of letter no 402 dated 15.03.2024 issued by Division Forest Officer, Forest Division, Deoghar stating that plot No L-2 (a), L-2 (b), L-2 (c) & L-3 located at Industrial Area -II, Deoghar is not falling under forest area.

7. The PP reported that Ambient air quality monitoring was carried out at nine locations during 1st December 2022 to 28th February 2023. The baseline data indicates that ranges of concentrations as: PM_{10} (42 µg/m^3 to 89 µg/m^3), $PM_{2.5}$ (18 µg/m^3 to 47 µg/m^3), SO_2 (5.10 µg/m^3 to 8.2 µg/m^3), NO_2 (7.80 µg/m^3 to 16.3 µg/m^3), CO (0.21 mg/m^3 to 0.42 mg/m^3). The 98%tile of all pollutant parameters are observed to be within the limits of standards prescribed by NAAQS, 2009. The manufacturing process of Nano fertilizer is a closed loop reactor vessel setup with regulated control. Hence, Nano plants will not contribute to air emissions. No process stack is proposed in the project. There shall be no process gaseous emission from Nano Plant. To meet LP steam requirement of plant, it is proposed to install HSD based boiler of 3.5 TPH with 30m stack height. All measures shall be adopted during transportation and handling of Raw Material and Product to reduce fugitive emissions. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.910 µg/m3, 1.81 µg/m3 and 1.8 µg/m3 with respect to PM10, NOx and SOx, respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

8. The total water requirement of the plant will be 419 KLD. Out of total, 304 KLD will be sourced from surface water Punashi dam and rest of the water requirement will be sufficed by reusing 115 KLD treated water within the premises. Executive Engineer, Punashi Dam, Deogarh vide letter no 10 dated 08.01.2024 has issued approval for water supply of 4 lakh litre per day for the proposed project. Use of recycled water will reduce freshwater demand. The total wastewater generation from the project will be 128.4 KLD {Domestic Sewage- 70 KLD; Industrial Effluent- 58.4 KLD}. Industrial effluent will include DMF & UF reject, RO reject, EDI reject, washing water, Cooling Tower blow down and Boiler blow down. Approx. 58.4 KLD of process effluent shall be treated in ETP/UF/RO/MEE plant and reused within the plant for horticulture. The project will be based on "Zero Liquid Discharge (ZLD)" concept. All the standards of SPCB and MoEF&CC shall be maintained.

9. The total power requirement of the proposed plant will be 5000 kVA which shall be sourced through JBVNL (Jharkhand Bijli Vitran Nigam Limited). 2 no. of DG sets of capacity 750 kVA each will be installed within the plant exclusively for backup purposes.

10. **Details of Process Emissions Generation and its Management**: The manufacturing process of Nano fertilizer is a closed loop reactor vessel setup with regulated control. Hence, nano plants will not contribute to air emissions. No process stack is proposed in the project. There shall be no process gaseous emission from Nano Plant. To meet LP steam requirement of plant, it is proposed to install HSD based boiler of 3.5 TPH with 30m stack height. All measures shall be adopted during transportation and handling of Raw Material and Product to reduce fugitive emissions.

11. **Details of Solid waste/ Hazardous waste generation and its management**: There will be no generation of hazardous waste from the manufacturing process during its operation. However, there will be generation of hazardous wastes from associated activities i.e., Bottling plant, offsite facilities etc. which will be disposed of as per applicable laws. There will be generation of different kind of industrial hazardous waste such as Discarded Containers/Bags/Liners, Used/Spent Oil, Wastewater treatment scheme Sludge that will be disposed of as per Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2023. The municipal solid waste generation at the project site will be 196 kg/day that will be segregated in biodegradable waste and recyclable waste. Biodegradable waste will be disposed of at treated in Organic waste converter and recyclable waste will be sold off to authorized recyclers. Solid Waste Management Rules, 2016 will be followed at site.

S. no	Name of waste	Source of Generation	Category no asper Sch. II &2016	Quantity	Mode of treatment and disposal
HAZARDOUS WASTE					
1.	Discarded	Storage &	Sch-I/33.1	10000	Collection,

	Barrels/Containers /HDPE Drums	Handling of Raw Materials		Nos/annum HDPE Drums	Storage, Decontamination and sale to authorized decontamination facility/ authorized recycler.
2.	Used / spent oil	Machineries	Sch-I/5.1	800 Lt/Annum	Collection, storage in MS drum, transportation and disposal by selling to registered Re-refiners.
3.	Chemical Sludge From wastewater Treatment	In house ETP, MEE	Sch-I/35.3	350 Lt/Annum	Collected in Drying Pits, stored in HDPE bags, Transported and disposed off to approved TSDF site
4.	Bags contaminated With hazardous chemicals	Raw Material Packings	Sch –I/33.1	50MT/Year HDPE bags	Collection, Storage, and sale to authorized recycler
INDUSTRIAL WASTE					
5.	Plastic	Bottle Manufacturing Plant	-	80 kg/day	Will be Sold/Disposed off to Registered Recycler

Plastic Waste: All the plastic waste generated from Bottle and Cap manufacturing unit will be recycled after grinding and reused in bottle and cap manufacturing process. However, around 80 Kg/Day of plastic waste will be generated from Bottle Manufacturing Unit and same cannot be used as raw material. All plastic waste materials will be sold / disposed-off to Registered recycler. Also, Extended Producer Responsibility (EPR) guidelines as per Plastic waste Management Rules 2016 shall be followed. Also, PWM Rules 2022 shall be followed.

Municipal Waste: The municipal solid waste generation at the project site will be 196 kg/day that will be segregated in biodegradable waste and recyclable waste. Biodegradable waste will be disposed of at treated in Organic waste converter and recyclable waste will be sold off to authorized recyclers. Solid Waste Management Rules, 2016 will be followed at site

13. HSD based Boiler of capacity 3.5 MT/hr will be installed for the project. Suitable arrangement for storing HSD (20 KL) underground as per CCOE norms will be planned. A proper steam network shall be erected to provide steam to the Production Unit. 2 no. of DG sets of capacity 750 kVA each will be installed within the plant exclusively for backup purposes. 30 m stack height will be installed for the proposed boiler

14. The capital cost and recurring cost earmarked towards the existing Environmental Management Plan (EMP) is ₹ 531 Lakhs (capital) and about ₹ 84 Lakhs per annum. Industry proposes to allocate Rs. 1 Crores towards Corporate Environment Responsibility.

15. The industry will develop approx. 32,992.17 m2 i.e., 40.76% of total plant area will as green area. The industry shall plant 8225 (considering 20% mortality rate) no. of trees and contribute Rs. 90.8 Lakhs in 5 years for the same.

16. The PP reported that the project, being located within a notified industrial area i.e., Industrial Area, (**Notification no 6013 dated 22.12.1973**), is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

17. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment officials for the functioning of EMC.

18. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

19. Total cost for proposed Nano Urea Plant is Rs 365 Crores Total employment will be 320 no. persons as direct & indirect.

20. **Deliberations by the EAC**

During deliberations, EAC discussed the following issues:

(i) PP submitted commitment for installation of filter press instead of sludge drying bed.
(ii) PP submitted the break of proposed CER :

Proposed CER Plan

S. No.	Activity	1st Year (Lacs)	2nd Year (Lacs)	3rd Year (Lacs)	4th Year (Lacs)	5th Year (Lacs)	Total Cost (Lacs)
1	Landscaping development and improvement in the government schools and library and the roads outside the project	10	10	20	20	20	**80**
2	Provision of solar streetlights on roads outside the project sites and in Government schools, parks, and library	10	10	20	20	20	**80**
3	Adoption of Ponds in nearby area for Ground water recharge	20	10	10	10	20	**70**
4	Rainwater Harvesting in government schools and library	5	5	10	10	5	**35**
5	Road Development in nearby area	0	30	20	20	30	**100**
	Total (Rs)	**45**	**65**	**80**	**80**	**95**	**365**

(iii) PP submitted the details of bio-medical waste. (There will be no generation of 2MT/Year of Bio medical waste which will be disposed through approved biomedical waste agencies available in nearby areas)

(iv) PP submitted the revised EMP along with budgetary provision.

S. No.	Particulars	Proposed Capital Cost (Rs in Lakhs)	Proposed Recurring cost (Rs in Lakhs)
1	Air pollution control schemes (Ambient Air Monitoring Instruments, DG set & Boiler stack)	35	10
2	Water pollution control schemes (STP, ETP & MEE etc.)	225	50
3	Solid Waste Management (Filter Press, etc.)	50	22
4	Rainwater Harvesting (Rainwater Tank, Pumping & Filtration etc.)	85	2
5	Occupational Health	50	7

	(Occupational Health Centre, Infrastructure & Ambulance etc.)		
6	Greenbelt development	91	10
7	Solar Panels	80	5
Total		**616 Lakhs**	**106 Lakhs/year**

(v) PP submitted 30 m stack height to be provided to DG set.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members /domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance with the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during the implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The expert members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

23. **The EAC, after detailed deliberations, <u>recommended</u> the project for the grant of environmental clearance under 7 (ii), <u>subject to the compliance of the terms and conditions</u> as under, and general terms and conditions in Annexure-I:**

(i) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii) Stack height of 30m shall be provided to HSD based boiler(3.5 TPH). Stack height of 30 m shall be provided to DG set (2 x 750 KVA) as per CPCB norms.

(iii) Fresh water requirement from surface water source shall not exceed 304 KLD.

(iv) NOC from the Central Ground Water Authority shall be obtained before start of the construction of plant and drawing water from surface water source. State Pollution Control Board shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

(v) The total wastewater generation from the project shall not exceed 129KLD {Domestic Sewage: 70 KLD; Industrial Effluent: 58.4 KLD}. Industrial effluent shall be segregated into low COD/TDS and high COD/TDS effluent streams. Hight TDS/COD effluent stream shall be treated in MEE. LDS/COD effluent stream shall be treated in ETP followed by UF/RO. Treated effluent shall be recycled/reused for cooling tower make up and process. 70 KLD of sewage will be treated in Sewage Treatment Plant. Treated water generated from STP shall be reused within the plant for horticultural purposes. The project shall maintain "Zero Liquid Discharge (ZLD)"

(vi) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB.

(vii) As proposed PP shall spend Rs. 365 lakhs towards CER.

(viii) The green belt has been developed in 32992.17 Sq.m i.e., (40.76% of total plant areaw ith tree density @ 2500 trees per hectares), mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(vi) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions by engaging Environment Officials. In addition to this, one safety & health officer as per the qualification given in Factories Act, 1948 shall be engaged within a month of grant of EC. The PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(vii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under existing EMP Rs. 616 lakhs (Capital cost) and ₹ 106 Lakhs per Annum (Recurring cost)] shall be kept in a separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(viii) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as ETP sludge shall be either sent to TSDF. Spent catalyst shall be sent to Authorized recycelers. Municipal solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development. Bio medical waste shall be disposed through approved biomedical waste agencies available in nearby areas

(ix) The PP shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(x) The project proponent shall comply with the environment norms for 'Fertilizer Industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 1607 (E), dated 29th December, 2017under the provisions of the Environment (Protection) Rules, 1986.

(xi) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.

(xii) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xiii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xiv) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xv) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xvi) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xvii) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials

or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

(xviii) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places.

(xix) Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Chemicals shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xx) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority

Agenda No. 78.16

Amendment in existing Environmental Clearance for Synthetic Organic Chemical manufacturing unit at plot no. 22, Phase-I, notified IDA jeedimetla, quthubullapur(m), medchal-malkajgiri district, Telangana state by M/s. Deepak Nitrite Limited, Hyderabad Specialities Division, unit-III - by M/s. Deepak Nitrite Ltd.

[Proposal No. IA/TG/IND3/464827/2024, F. No. J-11011/203/2019-IA-II(I)]

1. The proposal is for amendment in the Environmental Clearance granted by MoEFCC, India vide letter no - **J-11011/203/2019-IA-II(I),** dated: **18.09.2019** for the project of "Expansion of Synthetic Organic Chemical manufacturing unit by M/s Deepak Nitrite Limited, Hyderabad Specialties Division, Unit-Ill at Plot No.22, Phase-I, IDA, Jeedimetla, Mandal Quthbullapur, District Medchal-Malkajgiri (Telangana)**.**

2. The project proponent has requested for amendment in the EC with the details are as under;

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons

1	Condition No.: 6, Paragraph No.: 1, Page No.: 2 of Environmental Clearance	Total water requirement is 275 cum/day including fresh water requirement of 255 cum/day proposed to be met from Hyderabad Metropolitan Water Supply & Sewage Board (HMWS&SB) supplied in industrial area. Total water requirement is 275 cum/day including fresh water requirement of 255 cum/day proposed to be met from Hyderabad Metropolitan Water Supply & Sewerage Board (HMWS&SB) supplied in industrial area.	Total water requirement is 275 cum/day including fresh water requirement of 269 cum/day proposed to be met from Hyderabad Metropolitan Water Supply & Sewage Board (HMWS&SB) supplied in industrial area. Total water requirement is 275 cum/day including fresh water requirement of 255 cum/day proposed to be met from Hyderabad Metropolitan Water Supply & Sewerage Board (HMWS&SB) supplied in industrial area.	They have obtained **EC Vide F. No. J-11011/203/2019-IA-II(I), Dated: 18th September 2019**. According to this EC, Zero Liquid Discharge shall be ensured by the project proponent and no waste/ treated water shall be discharged outside the premises. **Till date, unit has not implemented this EC.** As per obtained **EC Vide F. No. J-11011/203/2019-IA-II(I), Dated: 18th September 2019**: • **LTDS effluent @ 21 KLD from equipment washing, QC, Softener regeneration Colling & Boiler shall be sent to Primary ETP followed by RO & Evaporator to achieve ZLD.** • Domestic sewage @ 12 KLD shall be sent to CETP, M/s. JETL. • ML @ 169 KL/day from process & scrubber shall be sent to M/s. Deepak Nitrite Limited (Hyderabad Specialities Division), Unit-II for recovery of sodium sulphate in MEE followed by fluidized bed incineration.
2	Condition No.: 6, Paragraph No.: 2, Page No.: 2 of Environmental Clearance	Effluent of 21 m^3/ day will be treated through Effluent Treatment Plant. Treated effluent of 20 cum/day will be recycled/reused within the premises. Domestic effluent of 12 m^3/ day will be sent to CETP of M/s. JETL, Jeedimetla to support the Biological Treatment	21 m^3/day effluent will be generated. Out of which, 15 KLD effluent from equipment Washing, QC & Softener regeneration will be sent to CETP, M/s. JETL after pre-treatment and Boiler & Cooling blow down @ 6 KLD will be reused in washing within the premises.	

		at CETP. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.	Domestic effluent of 12 m^3/day will be sent to CETP of M/s. JETL, Jeedimetla to support the biological treatment at CETP.	**<u>As per current valid CTO/CC&A:</u>** • **LTDS effluent @ 19 KLD from Colling & Boiler is being send to CETP, M/s. JETL after pre-treatment.** • Domestic sewage @ 12 KLD is being send to CETP, M/s. JETL. • ML @ 138 KL/day from process & washing is being send to M/s. Deepak Nitrite Limited (Hyderabad Specialities Division), Unit-II for recovery of sodium sulphate in MEE followed by fluidized bed incineration. For that, unit have also obtained membership of CETP for effluent discharge. Unit have also obtained **CC&A/CTO consent order no: TSPCB/10079/CFO/RR-II/HO/2021/508, Dated: 13/07/2021 and valid up to 31/07/2026**. However**, LTDS (Non-Process) stream @ 21 KLD will have**
3	Condition No.: 10, Sub condition.: (b), Page No.: 3 of Environmental Clearance	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.		
4	Condition No.: 10, Sub condition.: (h), Page No.: 3 of Environmental Clearance	Total fresh water requirement shall not exceed 255 cum/day, proposed to be met from Hyderabad Metropolitan Water Supply & Sewage Board (HMWS&SB). Prior permission in this regard shall be obtained from the concerned regulatory authority.	Total freshwater requirement shall not exceed 269 m3/day, proposed to be met from Hyderabad Metropolitan Water Supply & Sewerage Board (HMWS & SB). Prior permission in this regard shall be obtained from the concerned regulatory authority.	

				very less TDS & COD (Low Concentrated). Hence, ZLD will be very high operative in CAPEX and OPEX for treatment LTDS (Non-Process) stream. Also, ZLD (Zero Liquid Discharge) involves high capital expenditures and operation & maintenance cost for treatment of LTDS **(Non-Process)** stream. Hence forth, **ZLD (Zero Liquid Discharge) option for LTDS (Non-Process) Stream is not economically viable for our unit with compared to CETP discharge.** Also, MOEF&CC has published **advisory vide no. 28-58/1/2022-IFC-CPC, Dated: 29th July 2022**, **regarding Zero liquid discharge (ZLD). In which mentioned that, ZLD Condition is not compulsory condition, if it is not feasible for the PP**. **Henceforth, with reference to above said MOEF & CC Advisory and Techno Economic Feasibility of unit we want to go ahead with discharge (CETP).**

				• **LTDS (Non-Process) effluent @ 21 KLD will be generated from equipment Washing, QC, Softener regeneration, Colling & Boiler. Out of which 15 KLD effluent generated from equipment Washing, QC & Softener regeneration will be sent to CETP, M/s. JETL after primary pre-treatment and Boiler & Cooling blow down @ 6 KLD will be reused on washing within the premises. (EC Amendment Required)** • Domestic sewage @ 12 KLD shall be sent to CETP, M/s. JETL. (No Change) • ML @ 169 KL/day from process & scrubber shall be sent to M/s. Deepak Nitrite Limited (Hyderabad Specialities Division), Unit-II for recovery of sodium sulphate in MEE followed by fluidized bed incineration. (No Change) **<u>Stream Wise Industrial Effluent Treatment Scheme:</u>** **Stream 1: LTDS (Non-Process) effluent @ 21 KLD will be generated from equipment Washing, QC, Softener**

				regeneration, Colling & Boiler. Out of which 15 KLD effluent generated from equipment Washing, QC & Softener regeneration will be sent to CETP, M/s. JETL after primary pre-treatment and Boiler & Cooling blow down @ 6 KLD will be reused on washing within the premises. (EC Amendment Required) **Stream 2:** Domestic sewage @ 12 KLD shall be sent to CETP, M/s. JETL. **Stream 3:** ML @ 169 KL/day from process & scrubber shall be sent to M/s. Deepak Nitrite Limited (Hyderabad Specialities Division), Unit-II for recovery of sodium sulphate in MEE followed by fluidized bed incineration. **Hence, They have amendment in Water consumption/wastewater disposal and hazardous waste generation details of obtained EC Vide F. No. J-11011/203/2019-IA-II(I), Dated: 18th September 2019.**
5.	Sub Condition (K) of Condition No. 10 of	• Process organic residue and spent carbon, if any shall be sent to cement industries. ETP	Process organic residue and spent carbon, if any shall be sent to cement industries. ETP	They have proposed to change the disposal mode i.e. ZLD (ETP + RO + Evaporator) to CETP discharge (ETP + CETP) of

	Environmental Clearance	Sludge, Process inorganic & evaporation salt shall be disposed off to the TSDF.	Sludge & Process inorganic shall be disposed off to the TSDF.	LTDS (Non-Process) effluent in this EC Amendment. Henceforth, evaporation salt will be removed after proposed EC Amendment. **Hence, They have amendment in hazardous waste generation details of obtained EC Vide F. No. J-11011/203/2019-IA-II(I), Dated: 18th September 2019.**

During deliberations, EAC suggested that sewage can not be discharged into CETP as the same is designed to treat industrial effluent. The Committee desired that PP shall submit the correct treatment process for sewage.

Further, DGM-Environment, M/s Deepak Nitrate vide email dated 3.05.2024 has requested to withdraw the EC amendment application.

Accordingly, the proposal was returned at present stage.

Any other item:

(A) Proposal for exemption under Environment Clearance for manufacturing the products of Valproic Acid and Sodium Acetate by M/s Shreeji Intermediates

1. Ministry e-mail dated 20.03.2024 received from Jyoti Om Chemical Research Center Pvt. Ltd., seeking exemption under environment clearance in favour of M/s Shreeji Intermediates for manufacturing the products of Valproic Acid and Sodium Acetate

2. Jyoti Om Chemical Research Center Pvt. Ltd mentioned that M/s. Shreeji Intermediate is located on Plot No. 47/1/25, GIDC, Nandesari, Vadodara, Gujarat. The unit wants to manufacture valproic acid and sodium acetate.

3. Further M/s Jyoti Om Chemical Research Center Pvt. Ltd informed that they had applied for Terms of Reference. Therefore, a Standard ToR has been given vide file. No. J-11011/459/2023-IA-II (I) dated 10.01.2024. They mentioned that in the cover letter of the Terms of Reference, they had asked for an exemption of Environment Clearance.

4. M/s Jyoti Om Chemical Research Center Pvt. Ltd. has explained the chemical process for manufacturing of sodium acetate and Valproic acid.

5. Further, Jyoti Om Chemical Research Center Pvt. Ltd, also stated that the Valproic Acid and Sodium Acetate are synthetic organic chemicals but have low pollution potential as compared to LABSA and ASA.

6. The Committee noted that as per EIA Notification, 2006 as amended from time to time, 5(f) synthetic organic chemicals activity provides one more category i.e. small unit under category B. Small units define as industrial unit having water consumption <25 m^3/day, fuel consumption <25 TPD and not covered in the category of MAH units as per the Management, Storage and Import of Hazardous Chemical Rules, 1989. Accordingly, the Committee asked Jyoti Om Chemical Research Center Pvt. Ltd to confirm whether manufacturing unit of Valproic Acid and Sodium Acetate falls under small units category. Subsequently, the Environmental Consultant confirmed that the category of proposed manufacturing unit may be treated as small units under 5(f). Further, the Committee suggested the Consultant should submit an undertaking that the proposed manufacturing unit meets the criteria of small units under 5(f) category.

In view of the above, the Committee recommended that proposal for manufacturing of sodium acetate and Valproic acid can not be considered for exemption under EIA Notification 2006. PP shall apply under small unts category under 5 (f) activity.

(B) Proposal for clarification on non-applicability of Environmental Clearance for manufacturing of paper sizing chemicals by M/s Ivax Paper Chemicals Pvt Ltd.

PP did not attend the meeting.

Parivesh 1.0

Agenda No. 78.1

Proposed project to produce Light Soda Ash (LSA) of 11,00,000 TPA capacity, 5,00,000 TPA of Dense Soda Ash (DSA) and 2,00,000 TPA Sodium Bicarbonate (SBC) located at near village Bada, Taluka - Mandvi, District - Kutch in the Gujarat by "Greenfield Chemical Complex" of GHCL Ltd- Reconsideration of Environmental Clearance

[Proposal no: IA/GJ/IND3/408164/2022, File No. IA-J-11011/293/2021-IA-II(I)]

1. The proposal is for Environmental Clearance to the Proposed project to produce Light Soda Ash (LSA) of 11,00,000 TPA capacity, 5,00,000 TPA of Dense Soda Ash (DSA) and 2,00,000 TPA Sodium

Bicarbonate (SBC) located at near village Bada, Taluka - Mandvi, District - Kutch in the Gujarat state by "Greenfield Chemical Complex" of GHCL Ltd

2. The project/activity is covered under Category 'A' of Item 4 (e) soda ash industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) as the project is located outside the notified industrial area.

3. The ToR was issued by the Ministry, vide letter no. IA-J-11011/293/2021-IA-II(I) dated 10th August, 2021. The PP applied for the Environment Clearance in the Common Application Form and submitted the EIA/EMP Report and other documents. The PP in the CAF reported that it is a **Fresh EC case. The proposal was placed in 72nd EAC Meeting held on 2nd January, 2024**, **74th EAC meeting held on 6th Februay,2024 wherein the proposal was deferred for want of requisite information now the proposal is placed in this 78th EAC meeting ng held on 30th April,2024** where project was wherein the PP and an accredited Consultant, M/s. T. R Associates [NABET accreditation till **NABET Accreditation Number: NABET/EIA/2326/RA 0293 valid till 8th April, 2026**], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the Total land area is **5463200 m^2;** no additional land will be used **for proposed project** and no R& R is involved in the Project. The details of various products are as follows:

Sr. No.	**Name of the Product**	**Production Capacity (MT/Month)**	**CAS Number**	**End use**
1	Light Soda Ash	11,00,000 TPA	497-19-8	Manufacturing of glass, usage in chemical industry, paper and detergent manufacturing, and food industry
2	Dense Soda Ash	5,00,000 TPA	497-19-8	
3	Sodium bicarbonate	2,00,000 TPA	144-55-8	
Captive Co-generation Power plant Steam (CFBC boilers)			120 MW	
Emergency DG Set			5 MVA	
Note- The production capacities are planned in phased manner and for Phase 1 production capacity for LSA: 5,50,000 TPA, Dense Soda Ash: 2,50,000 TPA, SBC: 1,00,000 TPA and 60 MW for Captive Co-generation Power plant.				

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that there is no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. **Marine National Park and Sanctuary, Jamnagar are located at 75 km aerial distance in South direction and Narayan Sarovar Sanctuary is located at more than 100 km aerial distance in North-West directions**. Flap shell turtle, Green Sea turtle, Indian monitor lizard, Olive Ridley Sea turtle, Black shoulder kite, Eurasian Spoonbill, Indian Peafowl, Marsh Harrier, Oriental Honey Buzzard, Gugal Schedule-I species were found in the study area for which conservation plan has been prepared and submitted to PCCF and Chief wildlife warden dated 9.11.2023.

7. The PP reported that the diversion of 0.9689 ha un-class forest for laying part of sea water intake and effluent disposal pipeline and passage for related construction equipment movement in Kachchh has been obtained vide letter dated 18. 7.2023.

8. The PP reported the Unit has received the Final recommendation letter from GZMA vide file no ENV/ 10/ 2021/184/ T- cell dated 26.12.2023. CRZ details are as:

Activities	**Zone**
Construction of process plant and utilities etc.	Outside CRZ area
Effluent collection	Outside CRZ area
Seawater Intake system i.e. sump and pump house	CRZ III
Intake Pipeline	CRZ IA, CRZ IB and CRZ IV
Outfall Pipeline	CRZ IA, CRZ IB and CRZ IV

Laying of Seawater Intake and effluent disposal underground pipeline through tunnel from unclassified Forest area, Sand dune area, intertidal area outside project boundary.

9. The PP reported that Ambient air quality monitoring was carried out at 10 locations during December 2019 – February 2020. The baseline data indicates the ranges of concentrations as: PM_{10} (19 µg/m^3 to 53 µg/m^3), $PM_{2.5}$ (8 µg/ m3 to 17 µg/ m3), SO_2 (1 µg/m^3 to 14 µg/m^3), NOx (5 µg/m^3 to 16 µg/m^3), Ammonia (6 µg/m^3 to 19 µg/m^3), Ozone (2 µg/m^3 to 8 µg/m^3), Carbon Monoxide (0.09 mg/m^3 to 0.21 mg/m^3), Hydrocarbons [Methane hydrocarbons (0.23 µg/m^3 to 1.27 µg/m^3) and Non-Methane hydrocarbons (0.11 µg/m^3 to 0.19 µg/m^3)], Lead (Pb) (0.05 µg/m^3 to 0.27 µg/m^3), Arsenic (As) (0.02 ng/m^3 to 0.11 ng/m^3), Nickel (Ni) (0.11 ng/m^3 to 0.18 ng/m^3), Benzo(α)pyrene(B[a]P) (ND to 0.03 ng/m^3) and Benzene (ND to 0.16 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.05 µg/m^3 in case of Lignite, Coal and Petcoke with respect to PM_{10}, 10.98 µg/m^3 in case of Lignite, 2.55 µg/m^3 in case of Coal and 13.26 µg/m^3 in case of Petcoke with respect to SO_2 and 11.37 µg/m^3 in case of lignite, 7.3 µg/m^3 in case of coal and 5.62 µg/m^3 in case of Petcoke with respect to NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

10. The PP reported that the total water requirement for project will be 15,20,060 m^3/day in case of Dry Lime process or 13,63,878 m^3/day in case of Wet Lime process which will be met from Sea water. Total Effluent of 15,88,570 m^3/day (Domestic - 160 m^3/day + Industrial – 15,88,410 m^3/day) in case of Dry Lime process or 14,48,818 m^3/day (Domestic - 160 m^3/day + Industrial – 14,48,658 m^3/day) in case of Wet Lime process. The Process effluent generated i.e. from distiller waste, brine purification reject, RO/DM rejects will be disposed off along with once through return cooling water/fresh seawater into Arabian Sea as per recommendation of NIO. The characteristics of the discharge water are within the norms prescribed by CPCB.

11. The PP reported that the Power requirement for proposed project will be 120 MW and will be met from Captive Co-generation Power plant. D. G. Set (5 MVA X 1) [Fuel: HSD (60 KL)] shall be provided and used only in case of power failure. Stack (30 meter) and Retrofit shall provide as per CPCB norms to the DG sets. Industry will provide six Steam Boiler (150 TPH) for captive power plant, six lime kilns and D G sets

12. **Details of process emissions generation and its management:**

SR.NO.	Stack attached to	Capacity	Height of the stack (m)	Fuel & its Consumption	Expected Pollutant	APC System	GPCB Limit
1	CPP with flue gas desulphurization CFBC Boiler (6 Nos.)	150 TPH	130 m	Imported Coal/Lignite/ Pet coke (Imported Coal: 13,14,000 TPA, Lignite :19,71,000 TPA, Pet coke: 9,12,500 TPA)	SPM SO_2 NO_2 Hg	Individual ESP with each Boiler	PM ≤ 30 mg/Nm^3 $SO_2 \leq 100$ mg/Nm^3 $NO_2 \leq 100$ mg/Nm^3 Hg ≤ 0.03 mg/Nm^3
2	D G Set (2/3 Nos.)	5 MVA	30 m	HSD (60 KL)	HC CO PM NO_x	Retrofitting	NOx 710 ppmv NMHC 100 mg/Nm3

							PM 75 mg/Nm3 CO 150 mg/Nm3
3	Lime Kiln 1		68 m	Coke or Briquette or Anthracite (Coke - 1,30,000 TPA, Briquette- 1,55,000 TPA, Anthracite - 1,10,000 TPA)	SPM SO_2 NO_2	Scrubber and Dust Collector system	SPM ≤ 150 mg/Nm^3 SO_2 ≤ 100 ppm NO_2 ≤ 50 ppm
4	Lime Kiln 2		68 m			Scrubber and Dust Collector system	
5	Lime Kiln 3		68 m			Scrubber and Dust Collector system	
6	Lime Kiln 4		68 m			Scrubber and Dust Collector system	
7	Lime Kiln 5		68 m			Scrubber and Dust Collector system	
8	Lime Kiln 6		68 m			Scrubber and Dust Collector system	

SR.NO.	**Stack attached to**	**Height of the stack (m)**	**Expected Pollutant**	**APC System**
1	Ammonia Recovery system	42 m	Ammonia	Water scrubber
2	Lime grinding system / Slaker	65 / 20 m	PM / Water vapor	Bag filter / Adequate stack height

3	Calciner unit	37 m	PM	Scrubber, Bag filter
4	Densification	43 m	PM	Scrubber
5	Sodium Bi-Carbonate Unit	30 m	PM	Bag filter
6	Lime Kiln	Closed system	PM	Scrubber and Wet ESP

13. **Details of Solid Waste/ Hazardous Waste Generation and Its Management**:

Sr. No.	Type of Waste	Mode of Disposal
1	ETP Sludge from treatment of effluent generated from captive power plant & RO/DM Plant	The effluent from power plant, RO/DM plant will require only neutralization & it will have negligible BOD/COD. Sludge will be disposed off in nearby landfill site.
2	Used Oil / Used Cotton	It will be sold to MoEF&CC/CPCB registered recyclers only. Approx. 12 KL
3	Discarded Drums	It will be sold to approve traders. Approx. 5 MT/yr
	Discarded Bags	It will be sent back to supplier for reuse.
4	Spent Ion exchange resin	To be sold to authorized recyclers or will be incinerated at MoEF&CC/CPCB approved TSDF for which plant will obtain membership. Approx. 3000 l/yr
5	Lead acid Batteries	It will be sold to authorized agency through auction.
6	Ash (Fly ash & Bottom Ash) from Boiler	The Boiler ash will be used for cement Manufacturing/ Brick Manufacturing. Approx. 750 TPD
7	Limestone rejects	It can be used in Boiler for desulphurization and as a sweetener in cement industry, road making, pavement etc. 5% of lime stone consumption.
8	Settled sludge	Since settled sludge, non-hazardous in nature, it is proposed to be disposed off in Nearby landfill site.

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ **205.07 crore** (capital) and the Recurring Cost (operation and maintenance) will be about ₹ **6.98 Crore** per Annum. Industry proposes to allocate ₹ **18.04 Crore** towards CER.

15. The PP reported that Public Hearing for the Proposed project has been conducted by the State Pollution Control Board at the project site on **17.10.2022**. The main issues raised during the public hearing are related to the air pollutants, water pollutants, schedule 1 conservation plan, fishing, traffic etc.

16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment officals for the functioning of EMC.

17. The PP submitted the Disaster and Onsite and Offsite Emergency Plans in the EIA report.

18. The estimated total project cost is **Rs. 3550 Crores**. Total Employment will be **1200** persons as direct.

19. Intake pipeline and outfall pipeline fall in CRZ 1A, 1B and IV area as per demarcation. It was reported that construction of process plant and utilities fall outside the CRZ area. SCZMA recommendation has been obtained for Laying of Seawater Intake and effluent disposal underground pipeline through tunnel from unclassified Forest area, Sand dune area, intertidal area outside project boundary.

20. The Public Hearing earlier was scheduled to be held on 16-04-2022 at 11:00 Hrs, Venue: Project Site, Survey no. 432, Village: Bada, Taluka: Mandvi, District: Kutch, Public hearing was then time being postponed due to unavoidable circumstances. After that public hearing was completed on **17-10-2022 at 11.00 Hrs.** Venue: Project Site, Survey no. 432, Village: Bada, Taluka: Mandvi, District: Kutch, Gujarat. Which was presided over by Shri Chetan Mishan(GAS), Sub Divisonal Magistrate & Deputy Collector, Mundra- Kutch. Public hearing Details as given below:

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
1	CSR – Fodder	4	Steps to be taken for cattle Care about Maldhari community Security regarding fodder supply for livestock.	Fodder will be provided as well as provision for veterinary doctor will be carried out by GHCL foundation under CSR activity.	• Activities for fodder supply will be carried out under CSR and CER activities for strengthening the bond between the project authorities and the local population. (refer Ch-8 and Table 10.4 in Ch-10). Fodder field will be developed on the Government/allocate land to nearby villages. • Unit will do promotion through providing support for breed improvement, animal health care, fodder improvement and providing veterinary doctor in nearby villages under CER and CSR activities for communities. • During year 2020-2021, GHCL foundation has spent INR 9.03 Crores towards CSR activities. CSR projects/activities worth INR 19.09 Cr. were implemented. GHCL wide range of CSR projects have touched and benefitted more than 90,200 lives over the years. Promoting	• As per MoEF&CC Office Memorandum F.NO. 22-67/2017-IAIII, MoEF&CC, New Delhi, dated on 1st May 2018 GHCL Ltd has earmarked 0.5 % of capital investment (appro. Rs. 18.04 crore), towards the Corporate Environment Responsibility in 5 years • GHCL Ltd will spend approx. **4.35 crore*** towards Animal husbandry promotion through providing support for breed improvement, animal health care, Veterinary doctor and others as well as provides Fodder for cattle feeding nearby villages as per requirement under CER activities (* value may defer as per actual requirement)	5 years	GHCL Limited
2	Employment	5	For employment of local villagers Number of employment opportunities to be Priority must be given to nearby 10 villages Regarding priority to nearby villages	Information on employment opportunities has given by Project Proponent that there are different types of employment opportunities in the two phase of the projects i.e. construction	• The proposed project has a potential for employment of skilled, semiskilled and unskilled employees during	• GHCL Ltd will spend approx. 2.25 crore towards Promoting activities for skill building to improve	During construction and Operation phase	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			for labor work Regarding employment for local communities.	phase and operational phase of the project. GHCL will strive to provide these employment opportunities to the local people, for which work will be done for their skill development and employment opportunities will be provided to the local people. As per requirement, training will be given to local people in coordination with HR department. Priority will be given for employment of local people. In nearby villages a group of women can be formed so that they can work in Gruhudhyogs (Home- based business). M/s. GHCL shall provide employment to women as per their skills and qualification.	operational phase. The plant will create direct employment in phased manner for about 1200 (operational phase) skilled as well as semi-skilled staff and indirectly large number ofunskilled manpower will be engaged for the project. For Employment, local people will get first priority as per suitability and requirement. People will also get employed by the contractors for various project related activities. (Refer Ch-8 of EIA report) • GHCL foundation will carry out skill development Programme for local youth to improve their employment opportunities, women empowerment under CSR and CER activities.	employment opportunities and women empowerment in nearby villages under CER activities.		
3	CSR - Health	1	Regarding health facilities under CSR activities	Will provide mobile health van facility and upgradation of existing healthcare infrastructure	• Industry will provide Mobile Health Care, Health Camps, and Specialized Check Up Camps in nearby villages. Necessary support and help will be extended for advanced diagnosis and treatment wherever identified, Free medical health checkup under CSR and CER activities.(Refer Ch-8 of EIA report). We have already initiated mobile health van facility for nearby affected villages of project site.	• GHCL Ltd will spend approx.. 1.12 crore towards Infrastructure development Such as primary healthcare units and the fulfilment of the basic amenities in PHCs including mobile medical van and Provide Bala-Rasayana to Malnutrition Children in Aanganwadi and PHC of nearby Villages under CER activities. • GHCL Foundation will spend approx..	5 years	GHCL Limited
4	CSR - Education	3	Regarding scholarship under CSR activity Regarding skill development of youth and improvement of	Will build school in future as per requirement and will also upgrade the existing school infrastructure and will carry out	• Unit will be directed at two levels viz. school and skill building to improve employment opportunities. At		5 years	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			Conditions To provide educational facilities	skill development activities	school level we intend to promote quality of education and learnability, develop infrastructure of Government schools, provide vocational training as per the requirement under CSR and CER activities. • GHCL foundation will support local government and NGO to make that program more effective. • GHCL foundation will carry out skill development Programme for local youth to improve their employment opportunities, women empowerment under CSR and CER activities. • During year 2020-2021, GHCL Foundation has spent INR 9.03 Crores towards CSR activities. CSR projects/activities worth INR 19.09 Cr. were implemented. GHCL wide range of CSR projects have touched and benefitted more than 90,200 lives over the years. Promoting such activities like water conservation, Animal husbandry, health care, SHG, Infrastructure development etc.	towards Infrastructure development for quality of education, which will ultimately upgrade schools in nearby villages under CER activities.		
5	Air Pollutants (SOx, NOx, Dust)	6	Height of chimney to be installed Levels of Sox and NOx Regarding acid rain cause by Sox Emission of PM during transportation and Emission of heavy metal such as	For minimizing Air Pollution, requisite height of the stacks will be provided as per the NAAQS norms. Besides this, Modern technology equipment's like Dust collector, Electrostatic Precipitator, Scrubber, will	• The best available technology-based pollution prevention and control shall used to meet the regulatory standards and these pollution control systems will be commissioned before	• Air pollution • Capital cost would include air pollution control devices like ESPs, Scrubbers, Dust extraction	During operation phase	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			mercury. Regarding once through cooling for 120 MW. Regarding linkage of fuel and how they are going to use it	installed. As a result, the pollution level will be within standard limits. GHCL will continue to support development of green belt in the surrounding villages through various agencies including GHCL Foundation (AF). GHCL shall endorses AF tree plantation movement of planting trees in entire Mandvi Taluka and 50,000 trees that mentioned, GHCL shall surely nurture those plants for five years.	commencement of operation of the project. Wherever possible, the control systems shall be interlinked with the operational units, so that failure of the control system shall shut down the respective operational unit. • High efficiency ESPs shall be provided in the flue gas path of the CFBC boilers for control of particulate matter. • Finely ground limestone will be added to the boiler combustion zone • together with coal/lignite to arrest the SO2 formed during combustion. • Lime stone dozing system to the furnace to be designed to achieve higher than 90% capture of SO2. Monitoring system(CEMS) of air pollutants SO2, NOx, NH3, PM10 and PM2.5 will be implemented. • So, the expected pollutants will be well within standard norms. • The air quality monitoring will be carried out on regular basis by approved agencies by CPCB/GSPCB. (refer Ch-6 and Ch-10 of EIA report) • GHCL will implement greenbelt /plantation program to ameliorate the pollutants and improve the aesthetics and ambient air quality. (refer Ch-10 of EIA report) • There is negligible cooling water requirement for power generation. There is no any alternative effective system is available for soda ash plant.	Stacks, Dry Fog system, Wind screen etc- 89.28 crore • recurring cost would include operation and maintenance of pollution control devices- 1.50 crore • **Environmental monitoring Programme** capital cost include OCEMS, online weather station etc- 3.4 crore • Recurring cost – 0.95 crore • Greenbelt • Capital Cost- 20 Crore • Recurring Cost- 0.5 crore		

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					• There is no readily available infrastructure for transportation of fuel i.e. rail or water way. So, we have to transport through road. Traffic study are shown in section 3.2.3 of chapter-3 and impact due to transportation is show in 4.1.4.3 and 4.2.3 of Chapter-4 in EIA report. In future, any alternative option available will explore. • GHCL Foundation will also promoting plantation activities in nearby villages under CSR and CER activities			
6	Water pollutants (BOD,COD,Ammonia, Mercury, Sea Weed, Mangroves)	7	Regarding water related question by Koli society Regarding decrease in number of phytoplanktons and disruption of food chain Regarding temperature and presence of ammonia in waste water Regarding presence of mangroves Regarding setup of tunnel for intake of sea water, seismic zone in which company falls, liquification of land due to heat Regarding discharge of effluents into sea containing ammonia and high temperature and death of fishes at Sutrapada plant Regarding quality of effluent in terms of BOD and COD	Effluent will be highly alkaline so it will be mixed with HCL and then it will be disposed off in sea. Design of structure will have done according to seismic zone V. In soda ash industry impact of ammonia is very low.	• Industry will provide adequate effluent management and monitoring system for disposal of treated water • Proper seawater intake and treated effluent disposal (ensure maximum dilution) shall be done as per recommendation Marine EIA report. • The water monitoring results of (surface and groundwater and marine) should be carefully evaluated to identify significant changes, if any, adverse change from the baseline accordingly, corrective measures will be taken to ensure the sustenance of water quality. However, there is no ground water pollution is envisage in such soda ash plant, • The ammonia concentration in treated waste water well	• Capital cost would include cost of ETP, STP etc- 14 crore • recurring cost would include operation and maintenance of pollution control	During operation phase	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					within the limit specified by CPCB for soda ash industry. • There is no such fish kill cases due to treated effluent in existing plant. There are independent studies available which indicates there is no significant adverse impact on marine environment but there will be positive impact on environment. • During studies, there is no such mangroves identified in sea water intake and outfall line area. • Design of pipeline/tunnel will be done according to seismic zone V. In case of catastrophic failure/ liquification on land, there are no chances of flooding as water transport through gravity.			
7	Marine Life	1	Effect on marine life due to proposed project	No adverse impact on fish or marine animals and sea weed observed.	• Industry should be ensured that the effluent released to the sea meets the prescribed GPCB/ CPCB norms at all times. This should be verified through tracer studies after the outfall becomes operational. The effluent release scheme can then be adequately modified to ascertain necessary dilution, if required. The efficiency of the diffuser must be checked periodically and if necessary, it should be cleaned to revert back to the dilution ascertained through initial tracer studies. • There are independent studies available which indicates there is no significant adverse	• A provision of Rs. 1 crore to be earmarked for the biodiversity management plan to be implemented in the project area during construction phase and operation phase. • For periodic monitoring of the marine area environment during project • construction phase, a provision of Rs. 0.5 crore to earmarked. • For operation phase, Rs. 0.3 crore per year to be kept provision	During constructio n and Operation phase	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					impact on environment but there will be positive impact on environment. • Design of pipeline/tunnel will be done according to seismic zone V. In case of catastrophic failure/ liquification on land, there are no chances of flooding as water transport through gravity.			
8	Health & Hygiene(Ammonia Leakge)	2	Skin diseases due to Soda Ash Regarding the leakage of ammonia.	GHCL will take care of any such issues related to Health of local peoples and workers. All the necessary measures for handling of chemicals will be implemented to reduce its impact on health of peoples. This information is also provided in the EIA report. All the pockets will have leak detection and repair system technology. Moreover, periodical maintenance will also be carried out. GHCL will ensure that there will be no leakage and therefore, there will not be occupational health issues for workers or villagers working in the plant. Moreover, GHCL will also provide PPE kits to workers for their safety.	• Ammonia tanks should have latest instrumentation provision for pressure indication, temperature indication and level indication. The provision of instrumentation should be within 100 percent redundancy. Continues recording of major parameters pertaining to the storages shall be maintained in the control room. • Unit will provide all the safety measure for ammonia storage as well as also prepare onsite and offsite emergency plan and all the APCM with respective units to mitigate the air pollution. The best available technology-based pollution prevention and control shall used to meet the regulatory standards and these pollution control systems will be	• Capital cost would include cost of OHS center, PPEs, fire & safety instruments, automation system for ammonia storage – 3.4 crore • Recurring cost would include maintenance charges and training, audit & health check-up etc.- 0.35 crore	During operation phase	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					commissioned before commencement of operation of the project. Wherever possible, the control systems shall be interlinked with the operational units, so that failure of the control system shall shut down the respective operational unit. There is no significant impact observed in the existing soda ash plants in Gujarat.. • There are rare possibilities of ammonia leakage observed in soda ash plant however, recommendation of Disaster management plan and risk assessment will be followed.			
9	CSR - Farmers	3	Facilities to be provided to nearby How hygenic the plant will be? How hygenic will be bada plant and what facility will be provided to the farmer.	GHCL Foundation is already providing subsidy for drip irrigation and GHCL will also consider to support this scheme further out of the CSR funds proposed for this project. To help agriculture, GHCL will help farmers as part of our CSR activity in consultation with villagers. The details and type of developmental work will be decided in consultation with villagers. GHCL foundation has been working for farmers through its different schemes like ground water recharge, water harvesting, zero chemical farming, drip irrigation etc.	• Industry will Promote environment friendly and nature-based solutions to enhance productivity of farming (Organic Farming) activities. It covers capacity building on farming techniques, provision of high-quality seeds/manure, efficient irrigation solutions, etc. under CSR and CER activities	• GHCL Ltd will spend approx.. 3.00 crore towards Promoting environment friendly and nature-based solutions to enhance productivity of farming (Organic Farming) activities. It covers capacity building on farming techniques, provision of high-quality seeds/manure, efficient irrigation	5 years	GHCL Limited
10	EIA Report & PH	14	EIA report is not correct	The terrestrial EIA report	• It is requested to note that as			GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
	advertisement		Regarding the alternative of site modhwa village. Regarding the NIO accreditation to prepare marine EIA report Regarding ToR granted and Study carried out prior of ToR granted. Regarding the advertisement of the PH Regarding NABET accreditation of consultant organization Regarding Marine EIA Regarding NEERI who has prepared EIA report Regarding the correction in EIA report Regarding the monitoring data collection Regarding accreditation certificate of additional studies for ecology.	prepared by CSIR NEERI and Marine EIA report is prepared by NIO, Mumbai	per OM number J-17011/8/92-IA-III dated 8th August, 2019, there are 7 institutes/agencies authorized for preparation of CZMPS in consonance with the provision of CRZ notification, 2019 vide GSR 37(e) dated 18/01/2019. IRS anna university Chennai has prepared the CRZ map for GHCL LTD. CSIR -NIO is Expert hired to carryout the Marine EIA study. • EIA report has been prepared by CSIR-NEERI, which is reputed governmental body and QCI NABET accredited consultant. • An extensive study on the ecology and Biodiversity in the study area was conducted by the QCI NABET approved functional area expert.			
11	Vipassana	3	Project site is near Vipassana meditation center The meditation center will be disturbed due to industry. Ammonia used in the industry. Related to presence of Vipassana center and other religious places in 15km radius of project site	--	• Environmental Management Plan envisages the plans for the proper implementation of mitigation measures to reduce the adverse impacts. • The EMP implementation will minimize the impact of atmospheric emissions, liquid effluents, solid wastes and noise generation on the surrounding environment. • The monitoring of all valued environmental components will be monitored as per the norms prescribed by GPCB/CPCB and the time to- time guidelines issued for soda	• Cost of Environment management plant including various installations for Air Pollution, Water Pollution, Noise Control,	--	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					ash manufacturing industry. • It is reported in CSIR NEERI report that there are no significant impact expected on man-made sensitive installations and habitations. On basis of study of present environment condition near project area and impact prediction and control measures proposed by GHCL Ltd. The proposed project will not have any significant negative impact on environment. Company operations are limited to the plant boundary and no negative impacts on Vipassana Centre are anticipated. The company will have robust peripheral Green Belt in order to attenuate noise and air emission due to plant operations.	• Recurring Cost- 0.5 crore		
12	CSR - Animal Husbandry	3	Regarding arrangements for Animal husbandry to Regarding distribution of kits to fisherman Regarding number of cattle present in the area	GHCL Foundation will support nearby community by providing education and livelihood support to make them self – reliant.	• Unit will do promotion through providing support for breed improvement, animal health care, fodder improvement and providing veterinary doctor in nearby villages under CER and CSR activities. • Unit will also promote development Initiatives for Fishing Communities such as Creation of infrastructure like ice plants, cold storages as well as provide operational inputs such as fishing boats, nets and engines • We have already provided veterinary doctor for nearby affected villages.	• GHCL Ltd will spend approx.. 4.35 crore towards Animal husbandry promotion through providing support for breed improvement, animal health care, Veterinary doctor and others as well as provides Fodder for cattle feeding nearby villages under CER activities	5 years	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
13	Site Selection	2	Regarding the alternative of site modhwa village. Regarding showing presence of marshy land near coastline	--	During the site selection, the alternative sites considered for setting-up of the proposed chemical complex project are given below: : Site 1 – Village Pingleswar, Taluka – Abdasa, Dist. Kutch Site 2 – Village Suthri, Taluka – Abdasa, Dist. Kutch Site 3 – Village Bambhdai, Taluka – Mandvi, Dist. Kutch Site 4 – Village Bada, Taluka – Mandvi, Dist. Kutch Site 5 – Village Modhva, Taluka Mandvi, Dist. Kutch The site at village bada is considered favorable based on the environmental and logistic advantages over other four sites. Justification of Site selection are given in Chapter-5 of EIA report.	--	--	GHCL Limited
14	Sand Dunes	2	Concern of presence of sand dunes at bada coast Regarding digging of sand dunes for preparation of tunnels for water intake	--	• There is no disturbance to existing sand dunes. • Tunnelling work (much below ground level) for laying pipeline through sand dunes will be done by adopting proven construction methodology like micro tunnelling. The detailed Studies on sand dune mapping and morphological changes near the project site was carried by National Institute of Oceanography (NIO), Goa. This report can be referred from CSIR NIO Marine EIA. • GHCL Ltd is committed for conservation plan for sea turtles and sand dunes as suggested by various studies.	--	--	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
15	Turtle	3	Regarding presence of turtles on the coastline of bada Regarding information on endangered species not mentioned in EIA report Regarding hatching and presence of sea turtles	--	• Study on Status Survey and Conservation Plan for Sea Turtles along Mandvi Taluka, Bhuj, Gujarat by **Zoological Survey of India, Kolkata (April,2019)** is attached with EIA report. • ZSI study report mention that they did not any encounter any sea turtle and fresh/old nests or crawl marks of turtles on the beach. Since many of the factor for selection of a suitable nesting site are not conducive. • As per additional Ecological and Biodiversity study, suggests that the coast near the proposed project site may not be suitable for sea turtle nesting due to narrow supra tidal region, steep slope, dense vegetation and presence of predators such as dogs and jackals. Though, observations suggest that there may be no or negligible probability of sea turtle nesting. • GUIDE is also engaged for study of turtle survey and preparing conservation	• Contribution to Forest department for Sea Turtle Conservation Activities- 0.20 crore	10 years	GHCL Ltd
16	Schedule 1 species (Peacock	4	Regarding presence of greater numbers of peacocks nearby and not	--	• Details of schedule - 1 species and conservation	• the proposed	10 years	GHCL Ltd

S. No.	Issue related to	Nos. Issues	Concern in PH	G HCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
	Sandha and indian Monitor Lizard)		stated in report Presence of reptiles and amphibians not reported Related to study of presence of Indian Monitor Lizard in study area Regarding presence of gugal trees,		already incorporated in EIA report. • GHCL shall make financial allocations for taking up wildlife mitigation measures and for contribution to forest department for carrying out activities towards propagation, protection and conservation of wildlife. • GHCL Ltd have submitted Conservation Plan (Flap shell turtle, Green Sea turtle, Indian monitor lizard, Olive Ridley Sea turtle, Black shoulder kite, Eurasian Spoonbill, Indian Peafowl, Marsh Harrier, Oriental Honey Buzzard, Shikra, Short-toed Snake Eagle, Chinkara and Gugal - Schedule –I species and Critically Endangered species) to CWLW department of Gujarat.	Allocation for conservation of Schedule 1 species for 10 years is 1.25 crore		
17	Conservation Plan	2	Regarding conservation plan for Schedule 1 species Concern regarding green sea turtles and conservation plan for them	--	• GHCL shall make financial allocations for taking up wildlife • mitigation measures and for contribution to forest department for carrying out activities towards propagation, protection and conservation of wildlife. • The unit have submitted Conservation Plan (Flap shell turtle, Green Sea turtle, Indian monitor lizard, Olive Ridley Sea turtle, Black shoulder kite, Eurasian Spoonbill, Indian Peafowl, Marsh Harrier, Oriental Honey Buzzard, Shikra, Short-toed Snake Eagle, Chinkara and Gugal - Schedule –I species and Critically Endangered species) to CWLW	• the proposed budget allocation for conservation of Schedule 1 species for 10 years is 1.25 crore	10 Years	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					department of Gujarat.			
18	Form 1(Water Bodies, Temples, Schedule 1 Species)	5	Regarding presence of waterbody not shown in form-1 Regarding religious places and lakes not mentioned in PFR report. Waterbody not mentioned in form-1 Data given in form-1 and EIA are different Waterbody not mentioned in form-1	--	• Environmental settings are given in Chapter-1 and Chapter-5 of EIA report. Approximate distance of water bodies, temples etc are given in EIA report. • Through drainage studies of the area, it was observed that there is one stream of 1st order entering the plant area from north. Although, it has small catchment area, it is proposed that this stream, will be diverted to nearby passing Vengadi River in the west. • There are also pond inside the premises. It is proposed that pond i.e. inside the premises will be used to store entire annual surface runoff plant use. If permitted by concern authority.	• -Cost of drainage network of surface runoff, rainwater collection pond and rain water harvesting system – 53 crores (included in EMP)	--	GHCL LTD
19	Govt. Land	3	Regarding type of land to be procured by the industry Regarding status of government land to be procured Providing data for proving gauchar land	--	• There is no gauchar land within proposed project site. M/s GHCL has applied to Industries Commissioner and District Collector for allotment of aforesaid land. Industries Commissioner has granted In Principle approval for Bonafied Industrial Purpose. District Collector has initiated actions for allotment of Govt. waste land.	--	--	GHCL LTD
20	Fishing	8	Regarding details of Pagadia fisherman not mentioned and Marine EIA is misinterpreted	--	• Proper seawater intake and treated effluent disposal (ensure maximum • dilution) shall be done as per	• A provision of Rs. 1 crore to be earmarked for the biodiversity management plan	During constructi o n and	GHCL LTD

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			Regarding disturbance to fishes due to presence of pipeline Regarding status of fishing near bada and Mandvi Related to number of fisherman not incorporated in study -- Related to presence of dead fishes not reported in study, fishing carried out for commercial purpose Regarding presence of fisherman in study area		Marine EIA report prepared by NIO Industry should be ensured that the effluent released to the sea meets the prescribed GPCB/ CPCB norms at all times. This should be verified through tracer studies after the outfall becomes operational. Details of Fishery and fishermen including their family and population are given in Chapter-3 of marine EIA report. Other than construction phase, there will be no any impact on pagadiya fisher men. As shore line will remain undisturbed. It is mentioned in marine EIA report that no large-scale commercial fishing operation prevail in the study area except for minor shore based and Gill net operations. There are independent studies available which indicates there is no significant adverse impact on environment but there will be positive impact on environment. Unit will also promote development Initiatives for Fishing Communities including pagadiya under CER and CSR activities	implemented in the project area during construction phase and operation phase. • For periodic monitoring of the marine area environment during project • construction phase, a provision of Rs. 0.5 crore to earmarked. • For operation phase, Rs. 0.3 crore per year to be kept provision for • the monitoring. • GHCL Ltd will spend approx.. 0.75 crore towards Development Initiatives for Fishing Communities including pagadiya under CER activities	Operation phase	
21	Water Body (check dams)	2	Related to presence of seasonal river which passes near bada village and presence of dam over it	--	Through drainage studies of the area, it was observed that there is one stream of 1st order	• Cost of drainage network of surface runoff, rainwater	During construction and	GHCL LTD

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			Related to distance of river from project site		entering the plant area from north. Although, it has small catchment area, it is proposed that this stream, may be diverted to nearby passing Vengadi River in the west, which has two check dams, one for salinity ingress check and on upstream side for storing fresh water. This will not cause any adverse impact on the downstream. For channelizing the monsoon run off from the area adjacent to plant it is required to construct peripheral drain along plant boundary so that flooding is avoided and run off find its way to the natural slope towards Arabian Sea. So, the present hydrological setting of the area will remain unaffected. So, the present hydrological setting of the area will remain unaffected. The additional water enter into the vengadi river through drainage will not impact on check dam. As any additional water above the river and check dam shall overflow to the Arabian sea.	pond and rain water harvesting system – 53 crores (included in EMP)	Operation phase	
22	Traffic (R MH, Heavy Trucks, Road Usage)	4	Regarding number of trucks passing due to project for raw Related to traffic study not mentioned in ToR, impact not carried out Concern regarding public roads Regarding number of trucks passing	--	Traffic study are shown in section 3.2.3 of chapter-3 and impact due to transportation is show in 4.1.4.3 and 4.2.3 of Chapter-4 in EIA report. We will use existing road network as no other transportation i.e. rail/water ways are available. We have carried out calculation on	--		GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					Traffic study (Level of Service) and added on Form Part-C.			
23	CSR General	1	Regarding past data of CSR -- Regarding to dusting due to kiln and power plant,	GHCL has proposed CSR budget in the EIA report which will be utilized based on need identification and village development meetings. CSR will be implemented with CSR implementing agencies including GHCL Foundation is working in following area. 1. Agro-livelihood and animal husbandry, 2. Education and skill development, 3. Health, water, and sanitation.	• GHCL's commitment towards the development of weaker sections of society has been a continuous initiative for more than two decades. Through its "GHCL Foundation Trust", GHCL has upgraded its CSR activities to cover a larger section of the society to provide support to the downtrodden, needy and marginalized citizens and also to create a social infrastructure for their sustenance. GHCL Foundation serves as the Corporate Social Responsibility arm of GHCL Limited and represents our commitment to the holistic development of our surrounding community. During year 2020-2021	--	--	GHCL LTD
					Infrastructure development etc.			
			Regarding pollution to be caused by industry -- Regarding to dusting due to kiln and power plant,		• Environmental Management Plan envisages the plans for the proper implementation of mitigation measures to reduce the adverse	• Cost of Environment management plant including various installations for		GHCL Limited

24	Pollution and Environment General	4	Related to disposal of effluent water	Unit will follow all the rules and regulation with their subsequent amendments as directed by concerned authorities	impacts. • The EMP implementation will minimize the impact of atmospheric emissions, liquid effluents, solid wastes and noise generation on the surrounding environment	Air Pollution, Water Pollution, Noise Control, Greenbelt Development, Occupational Health and Safety and other related activities.- 205.07 crore	--	
25	Forest area	2	Related to distance of project site from forest area Details regarding families dependent on forest	There is no classified forest area.	• There is no forest land within the boundary of proposed project site. However, some part of the unclassed forest area located south of the project site outside boundary. Sea water intake and outfall pipeline will pass through underground micro tunnel in specific corridor to cross forest area. The permission from the Forest Department is	--	--	GHCL LTD

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					of 0.9689 Ha. of un-class forest			
26	Supporting for Industrial Development to GHCL LTD	--	For Employment For Infrastructure development in nearby village Social upliftment towards nearby villages Health facilities Women empower ment Skill	GHCL LTD team thanked for welcoming the industries	--	--	--	--
	Total	94						

21. The Proposal was considered in the 72nd **EAC Meeting held on 2.1.2024** wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP vide letter dated 30.1.2024, and again the proposal was considered in the 74th EAC meeting Reply for the same was submitted on 28.3.2024.

S. No.	Queries Raised by EAC	Reply by PP
(i)	The Committee was of the view that PP shall compare the baseline data collected during December -February 2020 and data collected during December 2022 -February 2023. Accordingly, PP shall also carry out trend analysis of previous baseline data by conducting latest additional one-month baseline data	T R Associates have compared the baseline data collected during December 2019 - February 2020 and data collected during December 2022 - February 2023. Accordingly, T R Associates have carried out the trend analysis of previous baseline data by conducting latest additional one-month (February 2024) baseline data.
(ii)	The Committee noted that several representations have been received from various level of public raising several issues. The Committee was of the view that representations shall be forwarded to the PP for their response. The Committee also recommended that in the next meeting they will go through the video of proceedings of public hearing. The Committee will go through the response of PP then decide further course of action accordingly	PP informed that same type of questions have been raised in approximately 410 emails. The concerns raise are similar to issue raised in public hearing and samr has been replied in public hearing MoM. The committee deliberated on the each issues raised.

13. **Deliberations by the EAC**

The Committee members have reviewed the public hearing proceeding during the 78th EAC meeting held on 30th April 2024. Committee members have observed that 1st public hearing was scheduled on 6th April 2022. Advertisement of the public hearing schedule was given in the local daily newspaper in Gujarati Newspaper: Divya Bhaskar, dated 3rd March 2022 and English Newspaper, Times of INDIA, dated 4th March 2022, which is 30 days before the Public hearing, as mentioned in the EIA notification 2006 and their amendment also Submitted Draft EIA report to Concern authorities and Executive summary to Affected villages in line with EIA notification. However, it was postponed due to unavoidable circumstances.

A public hearing was rescheduled to 17th October 2022, as per the notification date of 9th May 2022, which states that in the event of any such postponement, the time duration for convening the rescheduled public hearing should not be less than forty-five days from the date of the first advertisement already published in accordance with the initial date of the public hearing. It shall be ensured that a minimum notice period of fifteen days shall be provided to the public before the re-scheduled date of the public hearing to furnish the responses in writing. The rescheduled advertisement was circulated in the daily local newspaper Divya Bhaskar on 30th September 2022 and Times of INDIA on 1st October 2022, 15 days before the public hearing as given in to the EIA notification 2006 and their amendment. Also, GPCB has Submitted an EIA report to

Concerned authorities and an Executive summary to the Affected villages in line with EIA notification. PP informed that Approximately 1,000-1,500 individuals may have attended the public hearing. However, only 106 people signed the signature sheet circulated by the GPCB concerned person during the public hearing. Therefore, GPCB reported 106 attendees in the proceedings. In the video film, it was observed that people who were opposing the project, have been given full opportunity to raise the issues before PH committee. Further, 1066 no. Issues were raised by the local people, and a point-wise reply from the project proponent was provided to them. The public hearing continued for about 10-11 hours. Sufficient time was given, the procedure was duly followed, and the concerns raised by the public were addressed, too. 1154, no. of written representations were received, including concerns raised, supporting letters from the affected local people, and replies to the written representation, which were also incorporated into the public hearing proceedings. Most issues raised during the public hearing were the Conservation of sand dunes, Environmental management plan, Vipassana meditation center, Conservation of Ecology and Biodiversity, Accreditation of Consultants, environmentally sensitive receptor distances, employment and other support provided by the project proponent after plant commissioning, etc.

Concerning the project, the proponent informed that it is essential to note the significant contributions of various organizations. The Marine Environment Impact assessment report was prepared by NIO, Mumbai, while the CRZ classification report, complete with a 1:4000 scale demarcation map, was prepared by IRS, Chennai. The sand dune and Biodiversity Conservation plan was developed by GUIDE Institute, Kutch, and the Sea turtle conservation plan was prepared by the Zoological Survey of INDIA (ZSI). Each of these organizations played a crucial role in ensuring the project's compliance with environmental regulations and preserving local biodiversity.

Based on the above details, report representation to the technical committee of GCZMA and give recommendations for CRZ clearance to GHCL Limited. The unit has also received Stage I and II approval from the Concerned forest authority.

PP informed that in the point of NABET accreditation, the project proponent informed that they awarded the project to NEERI in 2018. No NABET-accredited consultant accredited under sector 4 (e) was available during that period. NEERI is a nationally reputed organisation, and it also prepared EIA reports earlier for similar soda ash industries. Later, the unit reviewed and revalidated the EIA report with the NABET-accredited consultant M/s. T R Associates. T R Associates has also submitted the undertaking that they have verified the EIA/EMP report and prepared an addendum report describing our findings and observations. T R Associates has presented the committee that they have not observed any significant deviation in the EIA report prepared by the national repute organisation NEERI. The report discussed in the public consultation is as good as the report prepared by the accredited consultant and is factually correct. Additionally, the structure of the EIA report was complied with according to the EIA notification 2006 and its amendments.

After detailed deliberation, the Committee was of the view that since proposal involves CRZ clearance, views/comments of the CRZ division may also be obtained on the proposal from CRZ angle. The Comments /views of CRZ Division may be placed before the EAC (Industry -3) for consideration of the project. PP shall also submit clearcut land holding title of the proposed project site.

Project proposal was deferred for want of above additional information. Additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Agenda No. 78.2

Establishment of new natural and synthetic surfactant chemical manufacturing unit Mouza Kulepairi, P.S. Bagnan, Dist-Howrah, West Bengal by M/s Detergeo Chem (EAST) Private Limited (DCEPL) - Consideration of Environmental Clearance

[Proposal No.: IA/WB/IND3/256360/2020, File No.: IA-J-11011/1/2020-IA-II(I)]

1. The proposal is for Environmental Clearance to the Establishment of new natural and synthetic surfactant chemical manufacturing unit Mouza Kulepairi, P.S. Bagnan, District -Howrah, West Bengal by M/s Detergeo Chem (EAST) Private Limited (DCEPL).

2. The project/activity is covered under Category 'A' of 5(f) Synthetic organic chemicals industry (dyes & dye intermediates) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended).

3. The ToR was granted by the Ministry, vide letter no. No. IA-J-11011/1/2020-IA-II(I) dated 10.3.2020 . The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a Fresh EC case. The proposal is placed in this 78th EAC meeting on 30thApril ,2024, wherein the PP along with accredited Consultant, M/s Mantec Consultant Pvt Ltd. (NABET Accreditation No. NABET/EIA/2326/RA 030 valid till 20.04.2026] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that the total land area is 1.3493 Ha and no R& R is involved in the Project The details of products to be manufactured are as follows:

S. No.	Product Name	CAS Number	Proposed Manufacturing Capacity (MTA)
1.	Linear Alkyl Benzene Sulphonic Acid 96%	27176-87-0	12,000
2.	Linear Alkyl Benzene Sulphonic Acid 90%	85536-14-7	12,000
3.	Alpha Olefin Sulphonate	68439-57-6	1,000
4.	Sodium Lauryl Ether Sulphate	3088-31-1	24,000
5.	Sodium Lauryl Sulphate	151-21-3	6,000
6.	Cocoamidopropyl Betaine	61789-40-0	3,000
7.	Cocamide Monoethanolamide	68140-00-1	3,000
8.	Cocamide Diethanolamide	68603-42-9	3,000
9.	Ethylene Glycol Distearate	627-83-8	3,000
10.	Ethylene Glycol Monostearate	111-60-4	3,000
11.	Dilute Sulphuric Acid	7664-93-9	12,000

12.	Sodium Sulphate	7757-82-6	400
Total Capacity			82,400

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act.

6. The PP reported that There is no wildlife sanctuary within 10 km distance from the project site. River/ water body Rupnarayan river is flowing at a distance of 3.6 km in East direction No Schedule-1 Species within 10 km distance from the project site.

7. The PP reported that Ambient air quality monitoring was carried out at 8 locations during December 2023 to February 2024 and the baseline data indicates the ranges of concentrations as: PM_{10} (52µg/m^3 to 79µg/m^3), $PM_{2.5}$ (25µg/m^3 - 46µg/m^3), $S0_2$ (9 µg/m^3- 16 µg/m^3) and $N0_2$ (15 µg/m^3 - 32 µg/m^3). AAQ modeling study for point source emission indicates that the max. incremental GLcS after the proposed project would be 0.0028 µg/m^3 0.04142 µg/m^3 and 0.0052 µg/m^3 with respect to PM_{10}, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

8. The PP reported that the Total water requirement is 213 KLD of which fresh water requirement of 203 KLD will be met from State Water Tankers. Effluent of 10.7 KLD quantity will be treated through Effluent treatment plant. The plant will be based on Zero Liquid discharge system

9. Power requirement 1000 KW. DG sets of capacity 910 KVA and 500 KVA, DG sets are used as standby during power failure. Stack (height 30 m) will be provided as per CPCB norms to the DG sets.

10. 2 TPH fired boiler will be installed. Multi cyclone separator/ bag filter with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.

11. **Details of fuel:** Proposed project required fuel.

S. No.	Name of Fuel	Use	Quantity
1.	**HSD**	DG Set 1	100 L/hr
2.	**Sulfur**	Sulphonation Plant	500 Kg/hr
3.	**LDO**	2tph Boiler	155 L/hr

12. **Details of Process Emissions Generation and its Management**: D.G. Set and Sulphonation process emissions are the main sources of air pollution.
Impact on air quality due to proposal project will be temporary rise in SPM and RSPM level likely to result from:
• Fugitive dust emissions at the construction site.

• Use of unpaved roads and trucks tracks by the construction activities.

13. **Details of Solid Waste/ Hazardous Waste Generation and its Management**:

Details of Hazardous Waste

S.	Name of Waste	Quantity (MTPA)	Waste Type	Disposal Method	Source of Waste	Physical Status
1.	ETP Sludge (Category 35.3)	1.0 MTPA	Incinerable	Give to TSDF	ETP Filter	Solid
2.	Sulphur Ash	1.0 MTPA	Utilise for further beneficial use	Sell to fertilizer industry	Expired Raw Material	Solid
3.	Spent Oil (Category 5.1)	15 lt/yr	Recyclable	Sell to authorized oil reclamation plant	Pumps, DG, Equipment Seals	Oily

Details of Non-Hazardous Waste

S. No.	Name of Waste	Quantity	Waste Type	Disposal Method	Source Of Waste	Physical Status
1.	Discarded Plastic Bags	100 Bags/Yr	Recyclable	Give to authorized recyclers	Stores/Offices	Solid
2.	Used HDPE Drums	500/Yr	Recyclable	Re-use / Give to authorized recyclers	Plant / Warehouse	Solid

14. The Budget earmarked towards the Environment Management Plan (EMP) is ₹ 150 lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 17 lakhs per annum. Industry proposes to allocate Rs. 40 lakhs towards CER.

15. Industry has will developed greenbelt in an area of 33 % i.e 4453 Sq. m out of total area of the project.

16. The PP reported that the Public Hearing for the proposed project had been conducted by the State Pollution Control Board on 23.08.2021 under the chairman ship of Additional District Magistrate. The main issues raised during the public hearing are;

S. No.	Name of the Person	Points Raised	Replies and Action Plan	Budget
1.	Janab Monirul Islami	He welcomed the project and asked	The project proponent answered that no water will be discharged out of the	1.0 Lakh/year

S. No.	Name of the Person	Points Raised	Replies and Action Plan	Budget
	Village- Shyampur,	about the wastage of the water.	plant area as the project has been conceived as ZLD.	
2.	S.K Ahed Ali Village- Subsit (Paschim)	He welcomed the proposed project and questioned about the greenery developement to be done by the project proponent.	The project proponent replied that the adequate plantation will be done to maintain a greenbelt and to comply with the environmental norms.	
3.	S.K Manirul Ali Village- Bagur (Subsit)	He welcomed the proposed project and asked about the possible noise pollution that can be caused by the project	The project proponent said that the adequate measures will be be taken to attenuate noise arising out of the project so that it meets ambient noise standards.	
4.	Janab Jahiruddin Ali Village- Patinan	He welcomed the proposed project and asked about the prospect of local employement in the project.	The project proponent replied that both skilled and unskilled workers will be employed from the local areas and also proper training will be imparted so that they can develop themselves as per the project requirement as well as for private enterpreneurship	2.0 Lakh/year
5.	Janab Jiyarul Hussain Village- Kismat Brahman	He welcomed the proposed project and asked about the prospect of local areas.	The project proponent replied that the total work strength, 60% will be from the local areas.	

17. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment officials for the functioning of EMC.

18. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

19. The estimated project cost is Rs. 20 crores. Total Employment will be 40 persons as direct & 160 persons indirect after expansion.

20. **Deliberations by the EAC**

After detailed deliberations, EAC desired the following information:

(i) Details of air pollution source viz. sulphonation plant; waste heat recovery boiler; and its pollution control measures.
(ii) Details of ETP and Sewage Treatment Plant.
(iii) Filter press shall be installed in place of sludge drying bed.
(iv) Management of Municipal garbage generated from the proposed project site.
(v) Break up of capital cost and recurring earmarked for implementation of EMP.
(vi) Revised CER budget alongwith break up.
(vii) Action plan for development greenbelt alongwith number of tree to be planted and details of species as well as budget and time frame.
(viii) Consultant shall provide quantified measures to be taken for air pollution control (utilities & process); Wastewater management ; Greenbelt Development; solid waste management; Noise Environment; capital and recurring cost earmarked for EMP including CER; Post monitoring plan in Environment Management Plan chapter of EIA report. Revised EIA report shall be uploaded on Parivesh portal.

Project proposal was deferred for want of above additional information. Above all additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Agenda No. 78.3

Proposed Addition of Formaldehyde Production Capacity from 2100 MTPM to 7500 MTPM in Existing Formaldehyde Manufacturing Facility at Village Goyala, Mohana, Tal- Baksi Ka Talab, Deva Road, Lucknow, Uttar Pradesh by Subham Polychem Pvt. Ltd. - Consideration of EC

[Proposal No. lA/UP/lND3/246935/2021 / File No. IA-J-11011/43/2021-IA-II(I)]

1. The proposal is for environmental clearance for the Proposed Addition of Formaldehyde Production Capacity from 2100 MTPM to 7500 MTPM in Existing Formaldehyde Manufacturing Facility at Village Goyala, Mohana, Tal- Baksi Ka Talab, Deva Road, Lucknow, Uttar Pradesh by Subham Polychem Pvt. Ltd.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended).

3. The standard ToR was issued by the Ministry, vide letter no. IA-J-11011/43/2021-IA-II(I) dated 9.2.2021 .The PP in the Form-2 reported that it is an **Expansion case.** The proposal is now placed in78th EAC Meeting held on 30th April, 2024, wherein the Project Proponent and an accredited Consultant, M/s **Ind**

Tech House Consult. (**NABET Accreditation Number NABET/EIA/23-26/RA 0309 Valid till 29.04.2026**), made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the Existing land area is 2788 m^2 and no additional land will be used for the proposed expansion. The details of products and by–products are as follows:

S.No	Product Details (complete name)	CAS NO.	Existing Quantity	Proposed Quantity	Total Quantity	Uses
1.	Formaldehyde	50-00-0	2100 MT/month	5400 MT/month	7500 MT/month	Formaldehyde is used by plywood and mica laminated sheets manufacturers, who make adhesives like Urea Formaldehyde & Phenol Formaldehyde resins.

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction issued under E (P) Act/Air Act/Water Act.

6. The PP reported that EC was not required for the existing unit as it was installed before EIA Notification, 2006. The PP has obtained CTO with ref. No.: **70285/UPPCB/LUCKNOW (UPPCBRO)/CTO/water/LUCKNOW/2019** obtained for the production capacity of Formaldehyde of 2100 MT/Month. Certified CTO Compliance was issued by UPPCB vide letter dated 03.12.2022. All the conditions are complied.

7. The Certified CTO Compliance Report has been given by the RO, Uttar Pradesh Pollution Control Board on 03/12/2022 and 11/03/2024. No non-compliance is reported in the certified compliance report.

8. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body a) Imli Nala is situated at an aerial distance of 50 m on East, b) Sarda Canal is at aerial distance of 252 m on East, c) Gomti River at aerial distance of 8.21 Km on SE and no Schedule-I species exist within 10 km study area of the project.

9. The PP reported that Ambient air quality monitoring was carried out at eight (8) locations during 1st Dec 2020 to 28th Feb 2021 and again in the month of October 2023 [post monsoon season] for the purpose of validating earlier baseline study. The baseline data in October 2023 indicates the ranges of concentrations as: PM_{10} (62 - 189 µg/m^3), $PM_{2.5}$ (39 – 98 µg/m3), SO_2 (6 – 10.5 µg/m^3) and NO_2 (15.7- 26.2 µg/m3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.119 µg/m3, 0.071 µg/m3, 0.533 µg/m3 and 1.91 µg/m3 with respect to PM10, PM2.5, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

10. A warning letter has been issued to the Director, M/s. Subham Polychem Pvt. Ltd, dated 07th November 2023, "In this regard, as concluded in personal hearing, PP shall engage an Accredited Consultant who will update and validate the existing EIA/EMP report. The onus of the monitoring data and other technical aspects of the EIA/EMP report will be on the new consultant.

11. Based on the above warning letter dated 07th November 2023, PP in their covering letter dated 15th December 2023 reported that PP have engaged Ind Tech House Consult (Accredited Consultant from NABET). Ind Tech House consult has owned the EIA report and prepared an addendum to EIA with respect to Chapter 2, Chapter 3 with 1-month additional baseline monitoring report, Chapter 4 and Chapter 10.

12. The PP reported that the total water requirement is 249 m^3/day of which fresh water requirement of 246.5 m3/day will be met from onsite tube-well. Effluent of 2.3 KLD quantity will be treated in proposed ETP and recycled in green area. Equipment washing effluent of approx. 2 KL during shut down once in 3-4 months will be treated in ETP and recycled in cooling tower. Sewage of approx. 0.4 KLD will be treated in proposed STP and recycled in green area. The plant will adopt Zero Liquid Discharge system and treated wastewater will be completely recycled.

13. The PP reported Power requirement after expansion will be 93.24 kW [connected load 225 KVA] and will be met from Uttar Pradesh Power Corporation Limited. Existing unit has one DG set of 125 KVA capacity and additionally one DG set of 480 KVA is proposed as standby during power failure. Stack (height 11 m from GL] will be provided as per CPCB norms to the proposed DG sets. Stack height of 12 m has been provided to HSD fired boiler (0.5 TPH).

14. **Details of Process Emissions Generation and their Management:** Tail gas from the process is vented out after absorption column at a height of approx. 12m from ground level. The existing manufacturing unit has installed three absorption columns in series before releasing off gases into the atmosphere. Proposed expansion unit will have five absorption columns in series before releasing off gases into the atmosphere. Therefore, emission of traces of methanol and formaldehyde vapour through the vent is not envisaged.

15. **Details of Solid/ Hazardous Waste Generation and its Management**: **Municipal Solid waste generation –** 2 Kg/day; One small OWC will be installed to process the organic wastes. Remaining wastes will be disposed through authorized agency as per local norms.

Waste Detail	Category as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016	Quantity Generation [Post Expansion]	Utilization/Disposal
ETP Sludge	35.3	Approx. 0.01 MT/year	Will be stored onsite at a secured place and disposed through authorized common HWTSDF
Empty barrels /liners/ containers contaminated with hazardous chemicals	33.1	10 nos./year	

Used Oil	5.1	Approx. 0.1 KL/year	Sold to authorized recyclers

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ . 50.0 lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹10 lakhs per annum. Industry proposes to allocate ₹11.6 Lakh towards corporate Environmental responsibility (CER).

15. The Public Hearing for the proposed expansion project has been conducted by the Uttar Pradesh State Pollution Control Board on 20/10/2021 which was presided by the Additional District Magistrate.The main issues raised during the public hearing are related to benefit & job opportunity due to the project, CER spending, pollution control measures.

Issue raised	Response from Project Proponent	Action Plan with time frame and Budget
Shri Nihal, resident of Goyla, asked that where and how will the 2% of the total income received to be spent?	It was apprised by the project manager that RO water will be made available in the village for drinking water and lighting will be arranged by solar energy and trees will be planted in the village. Along with this expense will be incurred for medical facilities.	Proposed CER money [11.6 lakh INR] would be spent in first three years during the post expansion operation phase.
Shri Vinay Dubey of resident of Goyla asked what kind of benefits the youth will get from increasing production?	Apprised by the project manager that due to increase in production youth will get employment according to their ability.	Employment would be given during operation phase of the project.
Shri Vimal resident of Goyla asked whether any kind of pollution will be spread by installing this plant?	It was informed by the project manager that there is no air pollution in it. To prevent noise pollution 125 KVA closed generator has been used. The wastewater that comes out is reused after purification.	Project Proponent will install acoustic enclosure for the proposed new DG set. ETP and STP will be installed as proposed before start of expansion project.
Shri Amir resident of Goyla asked when will be the CSR money spent?	It was informed by the project manager that the expenditure would be incurred after the production of the plant would start.	Proposed CER money [11.6 lakh INR] would be spent in first three years

		during the post expansion operation phase.
ADM had asked to explain in detail about the fire safety.	Flame arrestor would be installed at five places in the plant as told by Sri Vineet Kr Jha, Plant Supply which will reduce the risk of fire.	PESO license is in place. Existing fire approval will be updated.

16. The PP reported that the Industry has already developed greenbelt in an area of approx. 980 m^2 [35%] within the premises. Additional 135.2 m^2 area will be further developed within the premises making the green area 1115.2 m^2 [40% of plot area].

17. The PP proposed to set up an Environment Management Cell (EMC) to engage Environment officials for the functioning of EMC.

18. The PP submitted the disaster and Onsite and Offsite Emergency Plans in the EIA report.

19. The estimated project cost is Rs. INR 450 Lakh [Existing- 98 Lakh + Proposed Expansion - 352 Lakh]. Total Employment will be **09 persons** as direct.

20. **Deliberations by the EAC**:

The Committee noted that a warning letter has been issued to the Director, M/s. Subham Polychem Pvt. Ltd, dated 07th November 2023, "In this regard, as concluded in personal hearing, PP shall engage an Accredited Consultant who will update and validate the existing EIA/EMP report. The onus of the monitoring data and other technical aspects of the EIA/EMP report will be on the new consultant.

Based on the above warning letter dated 07th November 2023, PP in their covering letter dated 15th December 2023 reported that PP have engaged Ind Tech House Consult (Accredited Consultant from NABET). Ind Tech House consult has owned the EIA report and prepared an addendum to EIA with respect to Chapter 2, Chapter 3 with 1-month additional baseline monitoring report, Chapter 4 and Chapter 10.

PP submitted the details of Solid waste/ Hazardous waste generation and its management

- **Municipal Solid waste generation –** 2 Kg/day; One small OWC will be installed to process the organic wastes. Remaining wastes will be disposed through authorized agency as per local norms.
- **Hazardous wastes generation -**

Waste Detail	Category as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016	Quantity Generation [Post Expansion]	Utilization/Disposal
ETP Sludge	35.3	Approx. 0.01 MT/year	Will be stored onsite at a secured place and disposed through authorized common HWTSDF
Empty barrels /liners/ containers contaminated with hazardous chemicals	33.1	10 nos./year	
Used Oil	5.1	Approx. 0.1 KL/year	Sold to authorized recyclers

PP submitted the details of Greenbelt Development.

As per new revised plan, an area of 1115.2 sq m [40% of the plot area] has been earmarked as green area. Existing green area of 980 m^2 [35%] is already developed with 254 trees of different species. Additional plantation will be done with 246 plants within next one year.

S. No.	Components	No. of Trees			Total Budget (in INR)
		Existing	Proposed	Total	
1.	No. of Trees	254	246	500	200,000/- (500*400)
2.	Maintenance of Greenbelt	100,000	100,000	200,000	200,000
				Total	**400,000/-**

DETAILS OF GREENBELT DEVELOPMENT WITHIN THE PREMISES

S. No.	Existing Tree Name	No. of Trees	Proposed Tree	No. of Trees
1	Areca Palm	157	Areca Palm	50
2	Areca palm in vase	14	Neem	30
3	Neem	4	Gulmohar	38
4	Guava	6	Ashok	28
5	Gulmohar	1	Guava	15
6	Custard Apple	1	Ficus	35
7	Chickoo sapota	1	Mango	30
8	Jack fruit	3	Others	20
9	Mango	5		
10	Papaya	3		
11	Lemon	4		

12	Peepal (in vase)	5		
13	Ashok	8		
14	Kannair flower	4		
15	Mehendi	1		
16	Bottle palm	3		
17	Tez Patta	1		
18	Lasora	1		
19	Pakhadh	2		
20	Gudhal Flower	3		
21	Lemon Grass	4		
22	Basil	6		
23	Others	17		
	Total Existing	**254**	**Total Proposed**	**246**

PP submitted the EMP Budget

Environment Budget (operational phase)		
Component	**Capital Cost (in INR lakh)**	**Recurring Cost (INR Lakh/ Annum)**
Water Pollution control [Evaporator, segregation of effluent, ETP, STP, RWH tank etc.]	22	01
Solid waste Management [Non-hazardous, haz. & MSW]	6.0	0.5
Plantation and maintenance of greenbelt	5.0	2.0
Occupational Health	3.0	0.5
Plant Safety and Risk mitigation measures	12.0	1.0
Environment Management Dept. Staff, furniture, computers and printers	2.0	3.5
Environment Monitoring through external agency	Nil	1.5
Total	**50.0**	**10.0**

PP submitted the CER Fund Allocation

As per OM 1st May 2018, 2% of project cost (4.50 Cr) i.e. 9.0 Lakh INR should be allocated under CER activities. However, proponent has allocated INR 11.16 Lakh for CER activities to be completed in next three years.

S. No.	**CER Activities**	**Cost (Lakhs)**
1.	Infrastructure for Drinking Water (RO) in Goyala village	**1.90**
2.	Installation of Solar PV light in School of village Goyala	**3.06**

3.	Plantation near project area	**3.50**
4.	Sanitation, health, education and skill development	**2.70**
	Total	**11.16**

PP submitted the **Findings by Ind Tech House Consult**

M/s Ind Tech House Consult have gone through the report as submitted by M/s SD Engineering Services Pvt. Ltd. The project site has been visited and baseline monitoring has been conducted for one month in October 2023 with respect to ambient air quality, ambient noise, groundwater, surface water and soil quality in the study area.

Project details were discussed with the project proponent and accordingly the EIA report has been amended to certain extent that required necessary change/ addition of information in the EIA report. Chapter 2, 3, 4 and 10 has been revised/recompiled by us (M/s Ind Tech House Consult) based on the site visit, baseline monitoring results, discussion with the client and all the replies/presentation submitted to the EAC. The remaining part of the report remains same.

Chapter 2 Amendment –

- Comparative Statement on Salient Features included.
- Area statement submitted.
- Tail gas emission due to side reactions in the process was not mentioned in the report which has been included now.

$HCHO \rightarrow CO + H2$
$CH3OH+3/2\ 02 \rightarrow 2H2O+CO2$
In this process, no use of off-gases is included. PP has proposed to provide five absorption columns in series to prevent any trace emission of methanol or formaldehyde. Off gases generated during side reactions are vented out after absorption column at a height of approx. 12 m from ground level.

- Water balance with treatment and utilization scheme of effluent has been modified slightly and fresh water consumption has been revised to 246 KLD instead of 250 KLD in earlier submission. The wastewater after treatment in ETP will be recycled within the premises.

Chapter 3 Amendment –

Fresh monitoring reports have been submitted.

Observations on Primary Data of ambient air quality:

- PM10 concentration in the study area varied from 62 to 189 µg/m3
- PM2.5 concentrations in the study area varied from 39 to 98 µg/m3
- SO2 concentration in the study area varied from 6 to 10.5 µg/m3
- NO2 concentration in the study area varied from 15.7 to 26.2 µg/m3

- CO concentration in the study area was observed to be 0.68 to 1.00 mg/m3

Average concentration of PM_{10} and $PM_{2.5}$ exceeded at all monitored locations and its continuous exposure to human being can have health impacts. All other parameters like SO2, NO2 and CO were found well within the NAAQS, 2009 limits as specified by CPCB.

Inference:
PM 10 and PM 2.5 parameters of ambient air quality is higher in the entire region due to presence of many industrial units nearby and vehicular movement on nearby NH 27 and other roads

Chapter 4 Amendment –

- Air quality modeling due to utility operations [DG sets and boiler] has been done fresh by Ind Tech House Consult and findings have been provided. Additionally, air quality modelling due to vehicular emissions have been done which was not mentioned in earlier submitted EIA report.
- Carbon footprint has been estimated considering Scope 1 and Scope 2 Emissions. As calculated, approx. 9278 MT/Annum CO2 will be generated during post expansion operation phase considering the project operates with full production capacity.

Air Emission Modelling [Stack Emission]

Fresh Modelling Report

Parameter	Predicted Max Incremental Ground Level Conc.	Remarks
PM10	0.119 µg/m3	Maximum GLC values are occurring at coordinate 1000, 0 area towards the East direction
PM2.5	0.071 µg/m3	
SO2	0.533 µg/m3	
NOX	1.91 µg/m3	
CO	0.00178 µg/m3	

As per Earlier EIA Report

Parameter	Predicted Max Incremental Ground Level Conc.	Remarks
SPM	0.04569 µg/m3	Maximum GLC values are occurring at coordinate (500 ,0).
SO2	3.39381 µg/m3	
NOX	0.38217 µg/m3	

Air Emission Modelling [Vehicular Emission]

Raw materials and finished products will be transported through road. At present on an average 40 nos. of tankers are leaving or arriving the project site in a month. As estimated, maximum of 8 Nos. of tankers per day [240 nos./month] will be required during post expansion operation phase

Vehicular Emission Modeling Report

Parameter	Predicted Incremental Max Ground Level Conc.
CO	0.00705 mg/m3
NOX	2.704 µg/m3
PM10	0.346 µg/m3
PM2.5	0.202 µg/m3

Chapter 10 Amendment–

Environmental Management Plan has been recompiled based on all submissions made earlier to EAC, MoEF&CC to avoid any ambiguity in future

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members /domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance with the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during the implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations

to the proposal. The expert members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

22. **The EAC, after detailed deliberations, recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I:**

(i) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii) Stack height of 12 m has be provided to the existing HSD fired steam boiler (0.5 Kg/hr).

(iii) Adequate three absorption column alongwith vent height of 12 m shall be provided to control process emissions i.e methanol and formaldehyde.. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

(iv) The total fresh water requirement from ground water source shall not exceed 246.5 m3/day.

(v) NOC from the Concerned Local authority shall be obtained before start of the construction of plant for drawing of the Ground water for the project activities. State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

(vi) Effluent generation shall not exceed 3 KLD. Industrial effluent shall be treated in the proposed ETP. Treated effluent shall be recycled/reused for cooling tower make up. Sewage shall be treated in proposed STP and treated water shall be utilized for horticulture purpose. No effluent/treated water shall be discharged outside the factory premises and zero liquid discharge shall be maintained.

(vii) The PP shall develop 5-10 m thick greenbelt over an area of 1115.2 sq.m (i.e., 40 %of total plot area), preferably within one year of grant of EC. The additional 246 number of saplings shall be planted and should be of sufficient height, preferably 6-ft within the plant premises. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after

with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(viii) All the hazardous waste shall be managed and disposed as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either send to common incineration site or send for coprocessing. Municipal solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development.

(ix) Monitoring of the compliance of EC conditions shall be submitted with third party audit every year.

(x) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Environment Officials. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xi) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 50.0 Lakhs (Capital cost) and Rs. 10 lakh per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xii) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.

(xiii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(xiv) The project proponent shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21. 7.2010 under the provisions of the Environment (Protection) Rules, 1986.

(xv) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.

(xvi) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xvii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xviii) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xix) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xx) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.

(xxi) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xxii) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d)

Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

(xxiii) The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

Agenda No. 78.4

Manufacturing of Synthetic Organic Chemicals (Acrylate Polymers) located at Survey No.473 & 481, Village Borisana, Taluka Kadi, District Mehsana, Gujarat by M/s Corel Pharma Chem Pvt. Ltd. - Consideration of Amendment in Environmental Clearance-reg

[Proposal No. IA/GJ/IND3/298731/2023; File No. J-11011/313/2017-IA-II(I)]

1. The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter noF. No. J-11011/313/2017-IA-II (I) dated 27th July, 2020 and it's transferred on dated: 18th December, 2020 for the project M/s. Corel Pharma Chem (India) Pvt. Ltd located at Survey No. 453, 463 & 464, Borisana Village, Taluka: Kadi, District: Mehsana, Gujarat –in favor of M/s. Corel Pharma Chem (India) Pvt. Ltd.

2. The proposal was recommended by the 49th EAC meeting held on held during 3rd, 5th & 6th April, 2023.

3. Ministry observed that EC was granted for establishment of unit at survey No. 473 & 481, Village Borisana, Taluka Kadi, District Mehsana (Gujarat). Now, PP wants to change the location of unit at Survey No. 453, 463 & 464, Borisana Village, Taluka: Kadi, District: Mehsana, Gujarat. It appears that the said plots are different from the location for which EC was granted.

4. PP submitted that the unit desires **to add additional land bearing survey No. 463** and merge it with old survey no: - 473 & 481 additional land has been purchased **MAINLY** for greenbelt development and **ALSO FOR** parking facility.

Sr. No.	Amendment requested for	Reasons
1.	Addition of land for project	Additional land has been purchased MAINLY for greenbelt development and as well as to provide parking facility for the tucks which are likely to be came on regular basis and they have not to wait on the road and not causes to traffic, we have acquaired this additional land for the parking of these trucks.

2.	6 nos. of HAGs are desired to be removed	A higher Kcal/hr Thermic Fluid Heater (TFH) is to be installed to make up for the 6 Hot Air Generators (HAGs) which are desired to be removed. One TFH supplying heat to various locations would be more efficient as compared to 6 HAGs at 6 different locations.
3.	One TFH (4 Lac Kcal/hr) is to be replaced by a TFH (20 Lac Kcal/hr)	Higher Kcal/hr Thermic Fluid Heater (TFH) is to be installed to make up for the 6 Hot Air Generators (HAGs) which are desired to be removed. One TFH supplying heat to various locations would be more efficient as compared to 6 HAGs at 6 different locations. White coal (agricultural briquettes which is a renewable source of energy) is to be used as a fuel in the 20 Kcal/hr TFH. This would in turn replace diesel that was proposed to be used in each of the separate HAGs at various locations.
4.	Steam Boiler – I (3 TPH) is to be replaced by a Steam Boiler – I (6 TPH)	More steam required to increase the reaction rate by increasing the time allowed with a higher reaction temperature.
5.	Change in type of fuel in TFH	White coal (agricultural briquette which is a renewable source of energy) is to be used as a fuel in the 20 Kcal/hr TFH. This would in turn replace diesel that was planned to be used.
6.	Source of water will be a bore-well.	Sardar Sarovar Nigam Limited (SSNL) is at a distance of approximately 5-6 km from the site. A permission letter and installation would take almost 3-4 years. Not only that, Nowadays SSNL does not give water for industrial use, since Narmada water is supposed to be used for domestic and agriculture purpose. Hence, they decided to change our source of water from SSNL to ground water. The unit has obtained NOC for the abstraction of ground water.

5. Deliberations by the EAC

During deliberations, EAC discussed the following issues:

(i) The Committee noted that earlier EC was granted for the **Survey No** 453, 463 & 464, now PP need amendment for **Survey No.473 & 481. It was not clear what are reasons for change of survey nos at this stage. Accordingly, a letter from the Government of Gujarat needs to be submitted clarifying earlier survey number was** 453, 463 & 464 now denominated as **Survey No.473 & 481.**

(ii) Revised GLC for key parameters for proposed modified utilities to be submitted.
(iii) Revised water balance to submitted
(iv) Revised Budget earmarked for capital and recurring EMP cost and its break up.
(v) Confirmation regarding change in pollution load due to amendment.

Accordingly, proposal was deferred for want of above additional information. Above all additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Any other item:

Proposed Expansion of Synthetic Organic Chemicals Manufacturing Unit with Production Capacity from 30 TPM to 300 TPM located at Plot No. N-33 & N-34, MIDC Tarapur, Boisar, Palghar, Maharashtra by Vardhman Dyestuff Industries Pvt. Ltd. - Reconsideration of ToR

[Proposal No. IA/MH/IND3/416691/2023; File No. IA-J-11011/59/2023-IA-II(I)]

The proposal was already recommended for TOR in the 72nd EAC meeting held on 2nd January,2024. Due to technical glitch of portal, it got listed under ADS category and thereafter taken into this 78th EAC meeting held on 29-30 April 2024. EAC noted the matter and recommended the case for ToR.

ANNEXURE-I

GENERAL EC CONDITIONS

- No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- The PP shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
- The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- A copy of the clearance letter shall be sent by the PP to concerned Panchayat, ZillaParishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- The PP shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB.

A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.

- The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.
- The PP shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at **https://parivesh.nic.in/**. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

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Annexure-II

List of the Expert Appraisal Committee (Industry-3) members participated during Video Conferencing (VC) meeting

S. No.	Name of Member	Designation
1.	**Prof. (Dr.) A.B. Pandit**	Chairman
2.	**Dr. Suresh Panwar**	Member
3.	**Prof. (Dr.) Vijayanand S. Moholkar**	Member
4.	**Dr. (ER.) Dibakar Swain**	Member
5.	**Shri Dinabandhu Gouda**	Member
6.	**Dr. Kishore Malviya**	Member
7.	**Dr. P. Jagannadha Rao**	Member
8.	**Prof. (Dr.) Suneet Dwivedi**	Member
9.	**Shri Dinesh Runiwal,**	Member
10.	**A N Singh**	Member Secretary
MOEFCC		
1.	**Dr. Kanchan Puri**	Scientist-B
2.	**Dr. S. Pradeep kumar**	Scientist-B
3.	**Dr Bhawana Kapkoti Negi**	Technical Officer

**

MOM approved by

(Prof. Aniruddha B. Pandit)
Chairman
***

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)
*****

Dated:17.6.2024

MINUTES OF THE 80th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON 7th JUNE, 2024

Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003 through Video Conferencing (VC)

Time: 10:30 AM onwards

(i) Opening Remarks by the Chairman

Prof. (Dr.) A.B. Pandit, Chairman welcomed the Committee members and opened the EAC meeting for further deliberations.

(ii) Details of Agenda items by the Member Secretary

The Member Secretary then apprised the Committee about the details of Agenda items to be discussed during this Expert Appraisal Committee (EAC) meeting.

(iii) Confirmation of Minutes of the 79th EAC Meeting held on 8th-9th May, 2024.

The EAC noted that the final minutes of the above meeting were issued after incorporating the comments offered by the members and approved by the Chairman.

Parivesh 1.0

Agenda No.1

Proposed project to produce Light Soda Ash (LSA) of 11,00,000 TPA capacity, 5,00,000 TPA of Dense Soda Ash (DSA) and 2,00,000 TPA Sodium Bicarbonate (SBC) located at near village Bada, Taluka - Mandvi, District - Kutch in the Gujarat by "Greenfield Chemical Complex" of GHCL Ltd- Reconsideration of Environmental Clearance

[Proposal no: IA/GJ/IND3/408164/2022, File No. IA-J-11011/293/2021-IA-II(I)]

1. The proposal is for Environmental Clearance to the Proposed project to produce Light Soda Ash (LSA) of 11,00,000 TPA capacity, 5,00,000 TPA of Dense Soda Ash (DSA) and 2,00,000 TPA Sodium Bicarbonate (SBC) located at near village Bada, Taluka - Mandvi, District - Kutch in the Gujarat state by "Greenfield Chemical Complex" of GHCL Ltd

2. The project/activity is covered under Category 'A' of Item 4 (e) soda ash industry and 1(d) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) as the project is located outside the notified industrial area.

3. The ToR was issued by the Ministry, vide letter no. IA-J-11011/293/2021-IA-II(I) dated 10th August, 2021. The PP applied for the Environment Clearance in the Common Application Form and submitted the EIA/EMP Report and other documents. The PP in the CAF reported that it is a **Fresh EC case. The proposal was placed in 72nd EAC Meeting held on 2nd January, 2024**, **74th EAC meeting held on 6th Februay,2024, 78th EAC meeting held on 30th April,2024 wherein the proposal was deferred for want of requisite information now the proposal is placed in this 80th EAC meeting held on 7th June, 2024** where project was wherein the PP and an accredited Consultant, M/s. T. R Associates [NABET accreditation till **NABET Accreditation Number: NABET/EIA/2326/RA 0293 valid till 8th April, 2026**], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the Total land area is **5463200 m^2;** no additional land will be used **for proposed project** and no R& R is involved in the Project. The details of various products are as follows:

Sr. No.	**Name of the Product**	**Production Capacity (MT/Month)**	**CAS Number**	**End use**
1	Light Soda Ash	11,00,000 TPA	497-19-8	Manufacturing of glass, usage in chemical industry, paper and detergent manufacturing, and food industry
2	Dense Soda Ash	5,00,000 TPA	497-19-8	
3	Sodium bicarbonate	2,00,000 TPA	144-55-8	
Captive Co-generation Power plant Steam (CFBC boilers)			120 MW	
Emergency DG Set			5 MVA	
Note- The production capacities are planned in phased manner and for Phase 1 production capacity for LSA: 5,50,000 TPA, Dense Soda Ash: 2,50,000 TPA, SBC: 1,00,000 TPA and 60 MW for Captive Co-generation Power plant.				

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that there is no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. **Marine National Park and Sanctuary, Jamnagar are located at 75 km aerial distance in South direction and Narayan Sarovar Sanctuary is located at more than 100 km aerial distance in North-West directions**. Flap shell turtle, Green Sea turtle, Indian monitor lizard, Olive Ridley Sea turtle, Black shoulder kite, Eurasian Spoonbill, Indian Peafowl, Marsh Harrier, Oriental Honey Buzzard, Gugal Schedule-I species were found in the study area for which conservation plan has been prepared and submitted to PCCF and Chief wildlife warden dated 9.11.2023.

7. The PP reported that the diversion of 0.9689 ha un-class forest for laying part of sea water intake and effluent disposal pipeline and passage for related construction equipment movement in Kachchh has been obtained vide letter dated 18. 7.2023.

8. The PP reported the Unit has received the Final recommendation letter from GZMA vide file no ENV/ 10/ 2021/184/ T- cell dated 26.12.2023. CRZ details are as:

Activities	**Zone**
Construction of process plant and utilities etc.	Outside CRZ area
Effluent collection	Outside CRZ area
Seawater Intake system i.e. sump and pump house	CRZ III
Intake Pipeline	CRZ IA, CRZ IB and CRZ IV
Outfall Pipeline	CRZ IA, CRZ IB and CRZ IV

Laying of Seawater Intake and effluent disposal underground pipeline through tunnel from unclassified Forest area, Sand dune area, intertidal area outside project boundary.

9. The PP reported that **Ambient air** quality monitoring was also carried out at **10 locations** during **December 2022 – February 2023**. The baseline data indicates the ranges of concentrations as: PM_{10} (50.31 **µg/m^3 to 83.48 µg/m^3**), $PM_{2.5}$ (**21.65 µg/ m^3 to 51.31 µg/ m^3**), SO_2 (BDL (DL=5) **to 17.38 µg/m^3**), NOx (**16.38 µg/m^3 to 41.49 µg/m^3**), Ozone (BDL (DL=10) **to 19.62 µg/m^3**), Ammonia, Carbon Monoxide, Lead (Pb), Arsenic (As), Nickel (Ni), Benzo(α)pyrene(B[a]P) and Benzene results were observed Below Detectable Limit. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be **1.23** µg/m^3 in case of Lignite, **1.21** µg/m^3 in case of Coal and **1.19** µg/m^3 in case of Petcoke with respect to PM10, **1.71** µg/m^3 in case of Lignite, **0.229** µg/m^3 in case of Coal and **1.44** µg/m^3 in case of Petcoke with respect to SO_2 and **5.08**

µg/m^3 in case of lignite, **8.82** µg/m^3 in case of coal and **9.50** µg/m^3 in case of Petcoke with respect to NO_x, 2.39 µg/m^3 in case of NH_3. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

10. The PP reported that the total water requirement for project will be **14,61,038 m^3/day** which will be met from **Sea water.** Total Effluent of **14,48,508 m^3/day** [Domestic - **160 m^3/day** + Industrial – **14,48,348 m^3/day** (fresh seawater for dilution – 5,14,678 m^3/day + effluent generation from soda ash & CPP plant – 1,26,830 m^3/day + once through cooling – 8,07,000 m^3/day] will be generated. The industrial effluent generated (14,48,508 m^3/day) i.e. from RO/DM rejects, brine purification reject, distiller waste and boiler blowdown will be mixed with fresh seawater for dilution and wastewater from once-through cooling and treated and disposed into the Arabian Sea as per the recommendation of NIO. The characteristics of the discharge water are within the norms prescribed by CPCB. Domestic effluent (**160 m^3/day**) will be treated in sewage treatment plant and treated sewage will be reused in landscaping & gardening purposes.

11. The PP reported that the Power requirement for proposed project will be 120 MW and will be met from Captive Co-generation Power plant. D. G. Set (5 MVA X 1) [Fuel: HSD (60 KL)] shall be provided and used only in case of power failure. Stack (30 meter) and Retrofit shall provide as per CPCB norms to the DG sets. Industry will provide six Steam Boiler (150 TPH) for captive power plant, six lime kilns and D G sets

12. **Details of process emissions generation and its management:**

SR.NO.	Stack attached to	Capacity	Height of the stack (m)	Fuel & its Consumption	Expected Pollutant	APC System	GPCB Limit
1	CPP with flue gas desulphurization CFBC Boiler (6 Nos.)	150 TPH	130 m	Imported Coal/Lignite/ Pet coke (Imported Coal: 13,14,000 TPA, Lignite :19,71,000 TPA, Pet coke: 9,12,500 TPA)	SPM SO_2 NO_2 Hg	Individual ESP with each Boiler	PM ≤ 30 mg/Nm^3 SO_2 ≤ 100 mg/Nm^3 NO_2 ≤ 100 mg/Nm^3 Hg ≤ 0.03 mg/Nm^3

2	D G Set (2/3 Nos.)	5 MVA	30 m	HSD (60 KL)	HC CO PM NO_x	Retrofitting	NOx 710 ppmv NMHC 100 mg/Nm3 PM 75 mg/Nm3 CO 150 mg/Nm3
3	Lime Kiln 1		68 m	Coke or Briquette or Anthracite (Coke - 1,30,000 TPA, Briquette- 1,55,000 TPA, Anthracite - 1,10,000 TPA)	SPM SO_2 NO_2	Scrubber and Dust Collector system	SPM ≤ 150 mg/Nm^3 SO_2 ≤ 100 ppm NO_2 ≤ 50 ppm
4	Lime Kiln 2		68 m			Scrubber and Dust Collector system	
5	Lime Kiln 3		68 m			Scrubber and Dust Collector system	
6	Lime Kiln 4		68 m			Scrubber and Dust Collector system	
7	Lime Kiln 5		68 m			Scrubber and Dust Collector system	
8	Lime Kiln 6		68 m			Scrubber and Dust Collector system	

SR.NO.	**Stack attached to**	**Height of the stack (m)**	**Expected Pollutant**	**APC System**

1	Ammonia Recovery system	42 m	Ammonia	Water scrubber
2	Lime grinding system / Slaker	65 / 20 m	PM / Water vapor	Bag filter / Adequate stack height
3	Calciner unit	37 m	PM	Scrubber, Bag filter
4	Densification	43 m	PM	Scrubber
5	Sodium Bi-Carbonate Unit	30 m	PM	Bag filter
6	Lime Kiln	Closed system	PM	Scrubber and Wet ESP

13. **Details of Solid Waste/ Hazardous Waste Generation and Its Management**:

Sr. No.	Type of Waste	Category	Quantity	Mode of Disposal
1	Settled Sludge from treatment of effluent generated from captive power plant & RO/DM Plant	35.3	1.0 MT/Annum	Collection, storage and disposal at approved TSDF site
2	Used Oil	5.1	12 KL	Collection, storage and used within premises as a lubricant / sold to registered recycler
3	Discarded Drums and Bags	33.1	6.45 MT/Annum	Collection, storage & sold to authorized vendor
4	Spent Ion exchange resin	35.2	3000 Lit/Annum	Collection, storage and disposal at approved TSDF site
5	Used Cotton	33.2	5 MT/Annum	Collection, storage and disposal at approved CHWIF site
6	Lead acid Batteries	Schedule-IV (17)	5 MT	Collection, storage & sold to authorized agency through auction

7	E-Waste	Schedule-I of E-Waste (Management) Rules, 2022	5 MT/ Annum	Collection, storage & sold to authorized agency through auction
8	Plastic Waste	-	2295 MT/Annum	Collection, Storage and Disposal to CPCB/SPCB authorized recyclers under EPR of Plastic Waste Management
9	Bio-medical Waste	-	0.035 MT/Annum	Collection, storage and disposal at as per Bio-medical Waste Management Rules, 2016
10	Construction and Demolition Waste	-	20 TPD	Collection, storage and utilize internally for area filling, road making etc.

Non-Hazardous Solid Waste Details

Sr. No.	Type of Waste	Source of Generation	Quantity	Mode of Disposal
1	STP sludge	STP	1152 MT/Annum	Reused as Manure in Greenbelt Development
2	Kitchen Waste	Canteen	0.01 MT/Day	Collected and composted in Composter and further used as manure for gardening in the premises
3	Ash (Fly ash & Bottom Ash)	Boiler	2726.847 TPD	Collection, storage & sold to cement Manufacturing/ Brick Manufacturing
4	Limestone rejects	Desulphurization Process	1,00,000 MT/Annum	Collection and reused in Boiler for desulphurization and as a sweetener in cement industry, road making, pavement etc.

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ **318.08 crore** (capital) and the Recurring Cost (operation and maintenance) will be about ₹ **6.98 Crore** per Annum. Industry proposes to allocate ₹ **18.04 Crore** per annum towards CER.

15. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment officals for the functioning of EMC.

16. The PP submitted the Disaster and Onsite and Offsite Emergency Plans in the EIA report.

17. The estimated total project cost is **Rs. 3563.08 Crores**. Total Employment will be **1200** persons as direct.

18. Intake pipeline and outfall pipeline fall in CRZ 1A, 1B and IV area as per demarcation. It was reported that construction of process plant and utilities fall outside the CRZ area. SCZMA recommendation has been obtained for Laying of Seawater Intake and effluent disposal underground pipeline through tunnel from unclassified Forest area, Sand dune area, intertidal area outside project boundary.

19. The Public Hearing earlier was scheduled to be held on 17.10.2022 at 11:00 Hrs, Venue: Project Site, Survey no. 432, Village: Bada, Taluka: Mandvi, District: Kutch, Public hearing was then time being postponed due to unavoidable circumstances. After that public hearing was completed on **17-10-2022 at 11.00 Hrs.** Venue: Project Site, Survey no. 432, Village: Bada, Taluka: Mandvi, District: Kutch, Gujarat. Which was presided over by Shri Chetan Mishan(GAS), Sub Divisonal Magistrate & Deputy Collector, Mundra- Kutch. Public hearing Details as given below:

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
1	CSR – Fodder	4	Steps to be taken for cattle Care about Maldhari Security regarding fodder supply for livestock.	Fodder will be provided as well as provision for veterinary doctor will be carried out by GHCL foundation under CSR activity.	Activities for fodder supply will be carried out under CSR and CER activities for strengthening the bond between the project authorities and the local population. (refer Ch-8 and Table 10.4 in Ch-10). Fodder field will be developed on the Government/allocate land to nearby villages. Unit will do promotion through providing support for breed improvement, animal health care, fodder improvement and providing veterinary doctor in nearby villages under CER and CSR activities for communities. During year 2020-2021, GHCL foundation has spent INR 9.03 Crores towards CSR activities. CSR projects/activities worth INR 19.09 Cr. were implemented. GHCL wide range of CSR projects have touched and benefitted more than 90,200 lives over the years. Promoting	As per MoEF&CC Office Memorandum F.NO. 22-67/2017-IAIII, MoEF&CC, New Delhi, dated on 1st May 2018 GHCL Ltd has earmarked 0.5 % of capital investment (appro. Rs. 18.04 crore), towards the Corporate Environment Responsibility in 5 years GHCL Ltd will spend approx. 4.35 crore* towards Animal husbandry promotion through providing support for breed improvement, animal health care, Veterinary doctor and others as well as provides Fodder for cattle feeding nearby villages as per requirement under CER activities (* value may defer as per actual requirement)	5 years	GHCL Limited
2	Employment	5	For employment of local villagers Number of employment opportunities to be generated Priority must be given to nearby 10 villages Regarding priority to nearby villages	Information on employment opportunities has given by Project Proponent that there are different types of employment opportunities in the two phase of the projects i.e. construction	The proposed project has a potential for employment of skilled, semiskilled and unskilled employees during construction phase as well as	GHCL Ltd will spend approx. 2.25 crore towards Promoting activities for skill building to improve	During construction and Operation phase	GHCL Limited

S.No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			for labor work Regarding employment for local communities.	phase and operational phase of the project. GHCL will strive to provide these employment opportunities to the local people, for which work will be done for their skill development and employment opportunities will be provided to the local people. As per requirement, training will be given to local people in coordination with HR department. Priority will be given for employment of local people. In nearby villages a group of women can be formed so that they can work in Gruhudhyogs (Home- based business). M/s. GHCL shall provide employment to women as per their skills and qualification.	operational phase. The plant will create direct employment in phased manner for about 1200 (operational phase) skilled as well as semi-skilled staff and indirectly large number of unskilled manpower will be engaged for the project. For Employment, local people will get first priority as per suitability and requirement. People will also get employed by the contractors for various project related activities. (Refer Ch-8 of EIA report) GHCL foundation will carry out skill development Programme for local youth to improve their employment opportunities, women empowerment under CSR and CER activities.	employment opportunities and women empowerment in nearby villages under CER activities.		
3	CSR - Health	1	Regarding health facilities under CSR activities	Will provide mobile health van facility and upgradation of existing healthcare infrastructure	Industry will provide Mobile Health Care, Health Camps, and Specialized Check Up Camps in nearby villages. Necessary support and help will be extended for advanced diagnosis and treatment wherever identified, Free medical health checkup under CSR and CER activities.(Refer Ch-8 of EIA report). We have already initiated mobile health van facility for nearby affected villages of project site.	• GHCL Ltd will spend approx.. 1.12 crore towards Infrastructure development Such as primary healthcare units and the fulfilment of the basic amenities in PHCs including mobile medical van and Provide Bala-Rasayana to Malnutrition Children in Aanganwadi and PHC of nearby Villages under CER activities.	5 years	GHCL Limited
4	CSR - Education	3	Regarding scholarship under CSR activity Regarding skill development of youth and improvement of	Will build school in future as per requirement and will also upgrade the existing school infrastructure and will carry out	• Unit will be directed at two levels viz. school and skill building to improve employment opportunities. At	• GHCL Foundation will spend approx..	5 years	GHCL Limited

S.No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			Conditions To provide educational facilities	skill development activities	school level we intend to promote quality of education and learnability, develop infrastructure of Government schools, provide vocational training as per the requirement under CSR and CER activities. • GHCL foundation will support local government and NGO to make that program more effective. • GHCL foundation will carry out skill development Programme for local youth to improve their employment opportunities, women empowerment under CSR and CER activities. • During year 2020-2021, GHCL Foundation has spent INR 9.03 Crores towards CSR activities. CSR projects/activities worth INR 19.09 Cr. were implemented. GHCL wide range of CSR projects have touched and benefitted more than 90,200 lives over the years. Promoting such activities like water conservation, Animal husbandry, health care, SHG, Infrastructure development etc.	towards Infrastructure development for quality of education, which will ultimately upgrade schools in nearby villages under CER activities.		
5	Air Pollutants (SOx, NOx, Dust)	6	Height of chimney to be installed Levels of Sox and NOx Regarding acid rain cause by Sox Emission of PM during transportation and Emission of heavy metal such as	For minimizing Air Pollution, requisite height of the stacks will be provided as per the NAAQS norms. Besides this, Modern technology equipment's like Dust collector, Electrostatic Precipitator, Scrubber will	• The best available technology-based pollution prevention and control shall used to meet the regulatory standards and these pollution control systems will be commissioned before	• Air pollution • Capital cost would include air pollution control devices like ESPs, Scrubbers, Dust extraction	During operation phase	GHCL Limited

S.No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			mercury. Regarding once through cooling for 120 MW. Regarding linkage of fuel and how they are going to use it	installed. As a result, the pollution level will be within standard limits. GHCL will continue to support development of green belt in the surrounding villages through various agencies including GHCL Foundation (AF). GHCL shall endorses AF tree plantation movement of planting trees in entire Mandvi Taluka and 50,000 trees that mentioned, GHCL shall surely nurture those plants for five years.	commencement of operation of the project. Wherever possible, the control systems shall be interlinked with the operational units, so that failure of the control system shall shut down the respective operational unit. • High efficiency ESPs shall be provided in the flue gas path of the CFBC boilers for control of particulate matter. • Finely ground limestone will be added to the boiler combustion zone • together with coal/lignite to arrest the SO2 formed during combustion. • Lime stone dozing system to the furnace to be designed to achieve higher than 90% capture of SO2. Monitoring system(CEMS) of air pollutants SO2, NOx, NH3, PM10 and PM2.5 will be implemented. • So, the expected pollutants will be well within standard norms. • The air quality monitoring will be carried out on regular basis by approved agencies by CPCB/GSPCB. (refer Ch-6 and Ch-10 of EIA report) • GHCL will implement greenbelt /plantation program to ameliorate the pollutants and improve the aesthetics and ambient air quality. (refer Ch-10 of EIA report) • There is negligible cooling water requirement for power generation. There is no any alternative effective system is available for soda ash plant.	Stacks, Dry Fog system, Wind screen etc- 89.28 crore • recurring cost would include operation and maintenance of pollution control devices- 1.50 crore • **Environmental monitoring Programme** capital cost include CCEMS, online weather station etc- 3.4 crore • Recurring cost – 0.95 crore • Greenbelt • Capital Cost- 20 Crore • Recurring Cost- 0.5 crore		

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					• There is no readily available infrastructure for transportation of fuel i.e. rail or water way. So, we have to transport through road. Traffic study are shown in section 3.2.3 of chapter-3 and impact due to transportation is show in 4.1.4.3 and 4.2.3 of Chapter-4 in EIA report. In future, any alternative option available will explore. • GHCL Foundation will also promoting plantation activities in nearby villages under CSR and CER activities			
6	Water pollutants (BOD,COD,Ammonia, Mercury, Sea Weed, Mangroves)	7	Regarding water related question by Koli society Regarding decrease in number of phytoplanktons and disruption of food chain Regarding temperature and presence of ammonia in waste water Regarding presence of mangroves Regarding setup of tunnel for intake of sea water, seismic zone in which company falls, liquification of land due to heat Regarding discharge of effluents into sea containing ammonia and high temperature and death of fishes at Sutrapada plant Regarding quality of effluent in terms of BOD and COD	Effluent will be highly alkaline so it will be mixed with HCL and then it will be disposed off in sea. Design of structure will have done according to seismic zone V. In soda ash industry impact of ammonia is very low.	• Industry will provide adequate effluent management and monitoring system for disposal of treated water • Proper seawater intake and treated effluent disposal (ensure maximum dilution) shall be done as per recommendation Marine EIA report. • The water monitoring results of (surface and groundwater and marine) should be carefully evaluated to identify significant changes, if any, adverse change from the baseline accordingly, corrective measures will be taken to ensure the sustenance of water quality. However, there is no ground water pollution is envisage in such soda ash plant, • The ammonia concentration in treated waste water well	• Capital cost would include cost of ETP, STP etc- 14 crore • recurring cost would include operation and maintenance of pollution control	During operation phase	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					within the limit specified by CPCB for soda ash industry. • There is no such fish kill cases due to treated effluent in existing plant. There are independent studies available which indicates there is no significant adverse impact on marine environment but there will be positive impact on environment. • During studies, there is no such mangroves identified in sea water intake and outfall line area. • Design of pipeline/tunnel will be done according to seismic zone V. In case of catastrophic failure/ liquification on land, there are no chances of flooding as water transport through gravity.			
7	Marine Life	1	Effect on marine life due to proposed project	No adverse impact on fish or marine animals and sea weed observed.	• Industry should be ensured that the effluent released to the sea meets the prescribed GPCB/ CPCB norms at all times. This should be verified through tracer studies after the outfall becomes operational. The effluent release scheme can then be adequately modified to ascertain necessary dilution, if required. The efficiency of the diffuser must be checked periodically and if necessary, it should be cleaned to revert back to the dilution ascertained through initial tracer studies. • There are independent studies available which indicates there is no significant adverse	• A provision of Rs. 1 crore to be earmarked for the biodiversity management plan to be implemented in the project area during construction phase and operation phase. • For periodic monitoring of the marine area environment during project • construction phase, a provision of Rs. 0.5 crore to earmarked. • For operation phase, Rs. 0.3 crore per year to be kept provision	During constructio n and Operation phase	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					impact on environment but there will be positive impact on environment. • Design of pipeline/tunnel will be done according to seismic zone V. In case of catastrophic failure/ liquification on land, there are no chances of flooding as water transport through gravity.			
8	Health & Hygiene(Ammonia Leakge)	2	Skin diseases due to Soda Ash Regarding the leakage of ammonia.	GHCL will take care of any such issues related to Health of local peoples and workers. All the necessary measures for handling of chemicals will be implemented to reduce its impact on health of peoples. This information is also provided in the EIA report. All the pockets will have leak detection and repair system technology. Moreover, periodical maintenance will also be carried out. GHCL will ensure that there will be no leakage and therefore, there will not be occupational health issues for workers or villagers working in the plant. Moreover, GHCL will also provide PPE kits to workers for their safety.	• Ammonia tanks should have latest instrumentation provision for pressure indication, temperature indication and level indication. The provision of instrumentation should be within 100 percent redundancy. Continues recording of major parameters pertaining to the storages shall be maintained in the control room. • Unit will provide all the safety measure for ammonia storage as well as also prepare onsite and offsite emergency plan and all the APCM with respective units to mitigate the air pollution. The best available technology-based pollution prevention and control shall used to meet the regulatory standards and these pollution control systems will be	• Capital cost would include cost of OHS center, PPEs, fire & safety instruments, automation system for ammonia storage – 3.4 crore • Recurring cost would include maintenance charges and training, audit & health check-up etc.- 0.35 crore	During operation phase	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					commissioned before commencement of operation of the project. Wherever possible, the control systems shall be interlinked with the operational units, so that failure of the control system shall shut down the respective operational unit. There is no significant impact observed in the existing soda ash plants in Gujarat.. • There are rare possibilities of ammonia leakage observed in soda ash plant however, recommendation of Disaster management plan and risk assessment will be followed.			
9	CSR - Farmers	3	Facilities to be provided to nearby How hygenic the plant will be? How hygenic will be bada plant and what facility will be provided to the farmer.	GHCL Foundation is already providing subsidy for drip irrigation and GHCL will also consider to support this scheme further out of the CSR funds proposed for this project. To help agriculture, GHCL will help farmers as part of our CSR activity in consultation with villagers. The details and type of developmental work will be decided in consultation with villagers. GHCL foundation has been working for farmers through its different schemes like ground water recharge, water harvesting, zero chemical farming, drip irrigation etc.	• Industry will Promote environment friendly and nature-based solutions to enhance productivity of farming (Organic Farming) activities. It covers capacity building on farming techniques, provision of high-quality seeds/manure, efficient irrigation solutions, etc. under CSR and CER activities	GHCL Ltd will spend approx.. 3.00 crore towardsPromoting environment friendly and nature-based solutions to enhance productivity of farming (Organic Farming) activities. It covers capacity building on farming techniques, provision of high-quality seeds/manure, efficient irrigation solutions, etc under CER activities.	5 years	GHCL Limited
10	EIA Report & PH	14	EIA report is not correct	The terrestrial EIA report	• It is requested to note that as			GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
	advertisement		Regarding the alternative of site modhwa village. Regarding the NIO accreditation to prepare marine EIA report Regarding ToR granted and Study carried out prior of ToR granted. Regarding the advertisement of the PH Regarding NABET accreditation of consultant organization Regarding Marine EIA Regarding NEERI who has prepared EIA report Regarding the correction in EIA report Regarding the monitoring data collection Regarding accreditation certificate of additional studies for ecology.	prepared by CSIR NEERI and Marine EIA report is prepared by NIO, Mumbai	per OM number J-17011/8/92-IA-III dated 8th August, 2019, there are 7 institutes/agencies authorized for preparation of CZMPS in consonance with the provision of CRZ notification, 2019 vide GSR 37(e) dated 18/01/2019. IRS anna university Chennai has prepared the CRZ map for GHCL LTD. CSIR - NIO is Expert hired to carryout the Marine EIA study. EIA report has been prepared by CSIR-NEERI, which is reputed governmental body and QCI NABET accredited consultant. An extensive study on the ecology and Biodiversity in the study area was conducted by the QCI NABET approved functional area expert.			
11	Vipassana	3	Project site is near Vipassana meditation center The meditation center will be disturbed due to industry. Ammonia used in the industry. Related to presence of Vipassana center and other religious places in 15km radius of project site	--	Environmental Management Plan envisages the plans for the proper implementation of mitigation measures to reduce the adverse impacts. The EMP implementation will minimize the impact of atmospheric emissions, liquid effluents, solid wastes and noise generation on the surrounding environment. The monitoring of all valued environmental components will be monitored as per the norms prescribed by GPCB/CPCB and the time to- time guidelines issued for soda	Cost of Environment management plant including various installations for Air Pollution, Water Pollution, Noise Control, Greenbelt Development, Occupational Health and Safety and other related activities.- 205.07 crore	--	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					ash manufacturing industry. It is reported in CSIR NEERI report that there are no significant impact expected on man-made sensitive installations and habitations. On basis of study of present environment condition near project area and impact prediction and control measures proposed by GHCL Ltd. The proposed project will not have any significant negative impact on environment. Company operations are limited to the plant boundary and no negative impacts on Vipassana Centre are anticipated. The company will have robust peripheral Green Belt in order to attenuate noise and air emission due to plant operations.	• Recurring Cost- 0.5 crore		
12	CSR - Animal Husbandry	3	Regarding arrangements for Animal husbandry to Regarding distribution of kits to fisherman Regarding number of cattle present in the area	GHCL Foundation will support nearby community by providing education and livelihood support to make them self – reliant.	• Unit will do promotion through providing support for breed improvement, animal health care, fodder improvement and providing veterinary doctor in nearby villages under CER and CSR activities. • Unit will also promote development Initiatives for Fishing Communities such as Creation of infrastructure like ice plants, cold storages as well as provide operational inputs such as fishing boats, nets and engines • We have already provided veterinary doctor for nearby affected villages.	• GHCL Ltd will spend approx.. 4.35 crore towards Animal husbandry promotion through providing support for breed improvement, animal health care, Veterinary doctor and others as well as provides Fodder for cattle feeding nearby villages under CER activities	5 years	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
13	Site Selection	2	Regarding the alternative of site modhwa village. Regarding showing presence of marshy land near coastline	--	During the site selection, the alternative sites considered for setting-up of the proposed chemical complex project are given below: : Site 1 – Village Pingleswar, Taluka – Abdasa, Dist. Kutch Site 2 – Village Suthri, Taluka – Abdasa, Dist. Kutch Site 3 – Village Bambhdai, Taluka – Mandvi, Dist. Kutch Site 4 – Village Bada, Taluka – Mandvi, Dist. Kutch Site 5 – Village Modhva, Taluka Mandvi, Dist. Kutch The site at village bada is considered favorable based on the environmental and logistic advantages over other four sites. Justification of Site selection are given in Chapter-5 of EIA report.	--	--	GHCL Limited
14	Sand Dunes	2	Concern of presence of sand dunes at bada coast Regarding digging of sand dunes for preparation of tunnels for water intake	--	• There is no disturbance to existing sand dunes. • Tunnelling work (much below ground level) for laying pipeline through sand dunes will be done by adopting proven construction methodology like micro tunnelling. The detailed Studies on sand dune mapping and morphological changes near the project site was carried by National Institute of Oceanography (NIO), Goa. This report can be referred from CSIR NIO Marine EIA. • GHCL Ltd is committed for conservation plan for sea turtles and sand dunes as suggested by various studies.	--	--	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
15	Turtle	3	Regarding presence of turtles on the coastline of bada Regarding information on endangered species not mentioned in EIA report Regarding hatching and presence of sea turtles	--	• Study on Status Survey and Conservation Plan for Sea Turtles along Mandvi Taluka, Bhuj, Gujarat by **Zoological Survey of India**, **Kolkata (April,2019)** is attached with EIA report. • ZSI study report mention that they did not any encounter any sea turtle and fresh/old nests or crawl marks of turtles on the beach. Since many of the factor for selection of a suitable nesting site are not conducive. • As per additional Ecological and Biodiversity study, suggests that the coast near the proposed project site may not be suitable for sea turtle nesting due to narrow supra tidal region, steep slope, dense vegetation and presence of predators such as dogs and jackals. Though, observations suggest that there may be no or negligible probability of sea turtle nesting. • GUIDE is also engaged for study of turtle survey and preparing conservation	• Contribution to Forest department for Sea Turtle Conservation Activities- 0.20 crore	10 years	GHCL Ltd
16	Schedule 1 species (Peacock	4	Regarding presence of greater numbers of peacocks nearby and not	--	• Details of schedule - 1 species and conservation	• the proposed	10 years	GHCL Ltd

S. No.	Issue related to	Nos. Issues	Concern in PH	G HCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
	Sandha and indian Monitor Lizard)		stated in report Presence of reptiles and amphibians not reported Related to study of presence of Indian Monitor Lizard in study area Regarding presence of gugal trees,		already incorporated in EIA report. • GHCL shall make financial allocations for taking up wildlife mitigation measures and for contribution to forest department for carrying out activities towards propagation, protection and conservation of wildlife. • GHCL Ltd have submitted Conservation Plan (Flap shell turtle, Green Sea turtle, Indian monitor lizard, Olive Ridley Sea turtle, Black shoulder kite, Eurasian Spoonbill, Indian Peafowl, Marsh Harrier, Oriental Honey Buzzard, Shikra, Short-toed Snake Eagle, Chinkara and Gugal - Schedule –I species and Critically Endangered species) to CWLW department of Gujarat.	Allocation for conservation of Schedule 1 species for 10 years is 1.25 crore		
17	Conservation Plan	2	Regarding conservation plan for Schedule 1 species Concern regarding green sea turtles and conservation plan for them	--	• GHCL shall make financial allocations for taking up wildlife • mitigation measures and for contribution to forest department for carrying out activities towards propagation, protection and conservation of wildlife. • The unit have submitted Conservation Plan (Flap shell turtle, Green Sea turtle, Indian monitor lizard, Olive Ridley Sea turtle, Black shoulder kite, Eurasian Spoonbill, Indian Peafowl, Marsh Harrier, Oriental Honey Buzzard, Shikra, Short-toed Snake Eagle, Chinkara and Gugal - Schedule –I species and Critically Endangered species) to CWLW	• the proposed budget allocation for conservation of Schedule 1 species for 10 years is 1.25 crore	10 Years	GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					department of Gujarat.			
18	Form 1(Water Bodies, Temples, Schedule 1 Species)	5	Regarding presence of waterbody not shown in form-1 Regarding religious places and lakes not mentioned in PFR report. Waterbody not mentioned in form-1 Data given in form-1 and EIA are different Waterbody not mentioned in form-1	--	• Environmental settings are given in Chapter-1 and Chapter-5 of EIA report. Approximate distance of water bodies, temples etc are given in EIA report. • Through drainage studies of the area, it was observed that there is one stream of 1st order entering the plant area from north. Although, it has small catchment area, it is proposed that this stream, will be diverted to nearby passing Vengadi River in the west. • There are also pond inside the premises. It is proposed that pond i.e. inside the premises will be used to store entire annual surface runoff plant use. If permitted by concern authority.	• -Cost of drainage network of surface runoff, rainwater collection pond and rain water harvesting system – 53 crores (included in EMP)	--	GHCL LTD
19	Govt. Land	3	Regarding type of land to be procured by the industry Regarding status of government land to be procured Providing data for proving gauchar land	--	• There is no gauchar land within proposed project site. M/s GHCL has applied to Industries Commissioner and District Collector for allotment of aforesaid land. Industries Commissioner has granted In Principle approval for Bonafied Industrial Purpose. District Collector has initiated actions for allotment of Govt. waste land.	--	--	GHCL LTD
20	Fishing	8	Regarding details of Pagadia fisherman not mentioned and Marine EIA is misinterpreted	--	• Proper seawater intake and treated effluent disposal (ensure maximum • dilution) shall be done as per	• A provision of Rs. 1 crore to be earmarked for the biodiversity management plan	During constructi o n and	GHCL LTD

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			Regarding disturbance to fishes due to presence of pipeline Regarding status of fishing near bada and Mandvi Related to number of fisherman not incorporated in study -- Related to presence of dead fishes not reported in study, fishing carried out for commercial purpose Regarding presence of fisherman in study area		Marine EIA report prepared by NIO Industry should be ensured that the effluent released to the sea meets the prescribed GPCB/ CPCB norms at all times. This should be verified through tracer studies after the outfall becomes operational. Details of Fishery and fishermen including their family and population are given in Chapter-3 of marine EIA report. Other than construction phase, there will be no any impact on pagadiya fisher men. As shore line will remain undisturbed. It is mentioned in marine EIA report that no large-scale commercial fishing operation prevail in the study area except for minor shore based and Gill net operations. There are independent studies available which indicates there is no significant adverse impact on environment but there will be positive impact on environment. Unit will also promote development Initiatives for Fishing Communities including pagadiya under CER and CSR activities	implemented in the project area during construction phase and operation phase. • For periodic monitoring of the marine area environment during project • construction phase, a provision of Rs. 0.5 crore to earmarked. • For operation phase, Rs. 0.3 crore per year to be kept provision for • the monitoring. • GHCL Ltd will spend approx.. 0.75 crore towards Development Initiatives for Fishing Communities including pagadiya under CER activities	Operation phase	
21	Water Body (check dams)	2	Related to presence of seasonal river which passes near bada village and presence of dam over it	--	Through drainage studies of the area, it was observed that there is one stream of 1st order	• Cost of drainage network of surface runoff, rainwater	During construction and	GHCL LTD

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
			Related to distance of river from project site		entering the plant area from north. Although, it has small catchment area, it is proposed that this stream, may be diverted to nearby passing Vengadi River in the west, which has two check dams, one for salinity ingress check and on upstream side for storing fresh water. This will not cause any adverse impact on the downstream. For channelizing the monsoon run off from the area adjacent to plant it is required to construct peripheral drain along plant boundary so that flooding is avoided and run off find its way to the natural slope towards Arabian Sea. So, the present hydrological setting of the area will remain unaffected. So, the present hydrological setting of the area will remain unaffected. The additional water enter into the vengadi river through drainage will not impact on check dam. As any additional water above the river and check dam shall overflow to the Arabian sea.	pond and rain water harvesting system – 53 crores (included in EMP)	Operation phase	
22	Traffic (RMH, Heavy Trucks, Road Usage)	4	Regarding number of trucks passing due to project for raw material Related to traffic study not mentioned in ToR, impact not carried out Concern regarding public roads Regarding number of trucks passing	--	Traffic study are shown in section 3.2.3 of chapter-3 and impact due to transportation is show in 4.1.4.3 and 4.2.3 of Chapter-4 in EIA report. We will use existing road network as no other transportation i.e. rail/water ways are available. We have carried out calculation on	--		GHCL Limited

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					Traffic study (Level of Service) and added on Form Part-C.			
23	CSR General	1	Regarding past data of CSR	GHCL has proposed CSR budget in the EIA report which will be utilized based on need identification and village development meetings. CSR will be implemented with CSR implementing agencies including GHCL Foundation is working in following area. 1. Agro-livelihood and animal husbandry, 2. Education and skill development, 3. Health, water, and sanitation.	GHCL's commitment towards the development of weaker sections of society has been a continuous initiative for more than two decades. Through its "GHCL Foundation Trust", GHCL has upgraded its CSR activities to cover a larger section of the society to provide support to the downtrodden, needy and marginalized citizens and also to create a social infrastructure for their sustenance. GHCL Foundation serves as the Corporate Social Responsibility arm of GHCL Limited and represents our commitment to the holistic development of our Surrounding community. During year 2020-2021 GHCL has spent INR 9.03 Crores towards CSR activities. During year 2021-2022 GHCL has spent INR 10.62 Crores towards CSR activities CSR projects/activities worth INR 19.09 Cr. were implemented. GHCL wide range of CSR projects have touched and benefitted more than 90,200 lives over the years. Promoting such activities like water conservation, Animal husbandry, health care, SHG,	--	--	GHCL LTD

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					Infrastructure d evelopment etc.			

24	Pollution and Environment General	4	Regarding pollution to be caused by industry -- Regarding to dusting due to kiln and power plant, temperature of Related to disposal of effluent water	Unit will follow all the rules and regulation with their subsequent amendments as directed by concerned authorities	• Environmental Management Plan envisages the plans for the proper implementation of mitigation measures to reduce the adverse impacts. • The EMP implementation will minimize the impact of atmospheric emissions, liquid effluents, solid wastes and noise generation on the surrounding environment. • The monitoring of all valued environmental components will be • monitored as per the norms prescribed by GPCB/CPCB and the time to time guidelines issued for soda ash manufacturing industry.	• Cost of Environment management plant including various installations for Air Pollution, Water Pollution, Noise Control, Greenbelt Development, Occupational Health and Safety and other related activities.-205.07 crore • Recurring cost include maintaining and monitoring of all components-6.98 crore	--	GHCL Limited
25	Forest area	2	Related to distance of project site from forest area Details regarding families dependent on forest	There is no classified forest area.	• There is no forest land within the boundary of proposed project site. However, some part of the unclassed forest area located south of the project site outside boundary. Sea water intake and outfall pipeline will pass through underground micro tunnel in specific corridor to cross forest area. The permission from the Forest Department is under process. • There will be no major impact on families dependent on forest. As the pipeline will be laid under ground through latest	--	--	GHCL LTD

S. No.	Issue related to	Nos. Issues	Concern in PH	GHCL LTD reply	Action Plan	Fund Required	Timeline	Responsibility
					of 0.9689 Ha. of un-class forest			
26	Supporting for Industrial Development to GHCL LTD	--	For Employment For Infrastructure development in nearby village Social upliftment towards nearby villages Health facilities Women empower ment Skill	GHCL LTD team thanked for welcoming the industries	--	--	--	--
	Total	94						

21. The proposal was considered by the EAC in its meetings held on 2nd January 2024, 6th, February, 2024, 30th April 2024, & 28.3.2024 and reply of the queries raised during the last meeting are as follows:

<table>
<tr><th>S. No.</th><th>Queries Raised by EAC</th><th>Reply by CRZ division</th></tr>
<tr><td></td><td>The Committee was of the view that since proposal involves CRZ clearance, views/comments of the CRZ division may also be obtained on the proposal from CRZ angle. The Comments /views of CRZ Division may be placed before the EAC (Industr</td><td>Comments of CRZ have been obtained. It was informed that the project activity is permissible as per para 3 (I) (a), 4(ii) (d), 8 I(i) (b), (ii) (b), 8 III A(iii)j,k, 8(IV) of CRZ Notification 2011. The Gujarat CZMA has recommended the proposal vide letter dated ENV/10/2021/187/T-Cell, dated 26/12/2023.

CRZ Division suggested that the adequacy of the Marine Environment Plan, DMP, studies carried out by CSIR-NIO, GUIDE and ZSI, and proposed mitigation measures related to the project may be examined along with GCZMA recommended conditions by the concerned EAC / Sector (Industry-3) during the appraisal process of the project. Accordingly, the Committee deliberated upon the reports submitted.

The proposed project site area of M/s. GHCL Limited has acquired 375.558 ha., including government and private land.

The unit has acquired 76.9669 ha. of government land and 298.5911 ha. of private land in the core plant area
The Status of land acquisition including Government as well as Private land along with permission for land use change for industrial purpose has been received from Industry Centre.
The type of land involved along with the area bifurcation into Government and private land is provided in below table

<table>
<tr><td>SR. NO.</td><td>TYPE OF LAND</td><td>TOTAL LAND SANCTIONED (Ha.)</td></tr>
<tr><td>1</td><td>Private Land</td><td>444.6849</td></tr>
</table>
</td></tr>
</table>

	y -3) for consideration of the project. PP shall also submit clear-cut land holding title of the proposed project site.	2	Government Land	101.6351	76.9669
		Total		546.3200	375.558

M/s. GHCL Limited has applied for Environmental Clearance (EC) for a plot area measuring 546.32 Ha.

- **M/s. GHCL Limited** has **acquired 76.9669 hectares**.
- Correspondence regarding the land allocation includes:
  - **A letter from the Industry Centre regarding the allotment of 101.6351 hectares of government land to M/s. GHCL Limited.**
  - **An allotment letter from the Government of Gujarat (GOG) to the Collector.**
  - **A letter from the Collector to M/s. GHCL Limited for the plot area measuring 76.9669 hectares.**
  - **The challan paid for the government land by M/s. GHCL Limited.**

These documents are provided in the subsequent slides

SR. NO.	TYPE OF LAND	TOTAL LAND SANCTIONED (Ha.)	LAND ACQUIRED (Ha.)	LAND ACQUISITION UNDER PROCESS (Ha.)
1	Government Land	101.6351	76.9669	24.6682

Land Acquisition letter regarding opinion regarding giving prior permission for certified Industrial Use M/s GHCL Limited vide letter dated 22.1.2024 is submitted.

Allotment letter of Government land to M/s GHCL Limited vide letter 16.5.2024 has been submitted.

Challan Paid for the Government land by the industry has been submitted.

STATUS OF PRIVATE LAND ACQUISITION

- **M/s. GHCL Limited** has **acquired 298.5911 hectares.**

SR. NO.	TYPE OF LAND	TOTAL LAND SANCTIONED (Ha.)	LAND ACQUIRED (Ha.)	LAND ACQUISITION UNDER PROCESS (Ha.)
1	Private Land	444.6849	298.5911	146.0938

13. **Deliberations by the EAC**

The Committee deliberated upon the additional information provided by the PP.

The Committee noted that there is an OM dated 7th October, 2014 for status of land acquisition w.r.t. project site while considering the case for environment clearance under EIA Notification, 2006. PP has submitted the relevant information in compliance to the said OM.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The Committee noted that Terms of reference (TOR) were granted by MoEF&CC on 10 August 2021. Further, PP has carried out various studies required for EIA and CRZ clearance namely (i) EIA Report; (ii) Marine EIA Report prepared by CSIR- NIO (Mumbai, Goa); (iii) Marine EIA Addendum Report prepared by CSIR- NIO (Mumbai, Goa); (iv) CRZ Report prepared by IRS, Anna University, Chennai; (v) CRZ Approved Maps prepared by IRS, Anna University, Chennai; (vi) Conservation Plan of Sea Turtle prepared by ZSI, Kolkata; (vii) Conservation & management plan for the conservation of Significant species prepared by GUIDE, Kachchh (viii) Conservation Plan of Sand Dune by CSIR-NIO, Mumbai etc. Further, based on EAC recommendations, M/s T R Associates, NABET-accredited consultant has carried out additional 3 months data collection as well as additional 1 month data to valid the existing study and also submitted the undertaking that they have verified the EIA/EMP report and prepared an addendum report describing findings and observations. It was also presented that they have not observed any significant deviation in the

EIA report prepared by the national repute organisation NEERI. The Committee also noted that PP has obtained CRZ Recommendation letter from GCZMA; Approval for Conservation Plan of Significant Species from PCCF, Gandhinagar as well as Stage-I and Stage-II Forest Clearances.

It was also noted that the public hearing was conducted on 17.10.2022 presided by SDM/Dy Collector as per Notification dated 9th May 2022. Approximately 1,000-1,500 individuals have attended the public hearing. The Committee also saw video of public proceedings and observed that several people are against the project while several others in favour of project. However, only 106 people signed the signature sheet circulated by the GPCB concerned person during the public hearing. Therefore, GPCB reported 106 attendees in the proceedings. Further, 1066 Issues were raised by the local people, and a point-wise reply from the project proponent was provided. The public hearing continued for about 10-11 hours. As per SPCB, sufficient time was given, the procedure was duly followed, and the concerns raised by the public were addressed. 1154, no. of written representations was received, including concerns raised and supporting letters from the affected local people and replies to the written representation, which were also incorporated into the public hearing proceedings. The action plan, including the public hearing issues, was incorporated into the Final EIA report and submitted seeking environmental clearance. The Matter was also examined by the CRZ Division,

The proposal was considered by the EAC in its meetings held on 2nd January 2024, 6th, February, 2024, 30th April 2024, & 28.3.2024 and deliberated on the above issues. Accordingly, the proposal of M/s GHCL **namely Greenfield Chemical Complex** may be recommended for grant of environmental clearance and CRZ clearance subject compliance of the following specific and General conditions:

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members /domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance with the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise

and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during the implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The expert members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

23. **The EAC, after detailed deliberations, <u>recommended</u> the project for the grant of environmental clearance, <u>subject to the compliance of the terms and conditions</u> as under, and general terms and conditions in Annexure-I:**

(i) PP shall ensure that recommendations of SCZMA issued vide letter dated ENV/10/2021/187/T-Cell, dated 26/12/2023 for proposed greenfield chemical complex, sea water intake and effluent disposal facilities shall be implemented. Recommendations mentioned in Marine EIA Report; Conservation Plan of Sea Turtle report; Conservation & management plan for the conservation of Significant species prepared by GUIDE, Kachchh; Conservation Plan of Sand Dune by CSIR-NIO, Mumbai.

(ii) PP shall ensure that condition stipulated in letter dated 18.07.2023 for diversion of 0.96ha unclass forest and letter dated 4.01.2024 for final stage II.

(iii) ESP alongwith Stack height of 130 m shall be provided to Imported Coal/Lignite/ Pet coke fired with flue gas desulphurization 150TPH CFBC Boiler (6 Nos.) to control the particulate emission as per CPCB norms. Stack height of 30 m shall be provided to 5 MvA

DG set(2/3 nos). Scrubber and Dust Collector system alongwith stack height of 68 m shall be provided to Coke or Briquette or Anthracite fired lime kiln to control the particulate emission as per CPCB norms. Water scrubber system alongwith stack height of 42m shall be provided to ammonia recovery system. Bagfilter alongwith adequate stack height shall be provided to lime grinding system/slaker. Scrubber, Bag filter shall be provided to Calciner unit. Scrubber shall be provided to Densification. Bagfilter shall be provided to Sodium bicarbonate unit. ESP and wet Scrubber shall be provided to lime kiln.

(iv) Total fresh water requirement from sea water shall not exceed 14,61,038 m^3/day.

(v) NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

(vi) Total Effluent generation shall not exceed **14,48,508 m^3/day** [Domestic - **160 m^3/day** + Industrial – **14,48,348 m^3/day** (fresh seawater for dilution – 5,14,678 m^3/day + effluent generation from soda ash & CPP plant – 1,26,830 m^3/day + once through cooling – 8,07,000 m^3/day]. The industrial effluent generated (14,48,508 m^3/day) i.e. from RO/DM rejects, brine purification reject, distiller waste and boiler blowdown shall be mixed with fresh seawater for dilution and wastewater from once-through cooling and treated and disposed into the Arabian Sea as per the recommendation of NIO and after achieving the prescribed norms of CPCB/SPCB. Domestic effluent (**160 m^3/day**) shall be treated in sewage treatment plant and treated sewage will be reused in landscaping & gardening purposes.

(vii) The unit shall meet the effluent norms notified by MoEF&CC vide GSR(424 E) dated 01.06.2011 for soda ash industry.

(viii) The PP shall develop greenbelt of at least 5-10 m width over an area of 18,02,856 m^2 (33%) within the project site mainly along the plant periphery, preferably within a year of the grant of EC. The tree saplings selected for the plantation should be of sufficient height, preferably 6-ft shall be planted in greenbelt area. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(ix) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions and shall also engage Environment Officials. IN addition to this one

safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(x) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 318.08 crore (Capital cost) and ₹ 7.53 Crore per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xi) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.

(xii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(xiii) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration site or sent for coprocessing. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development. Fly ash shall be stored in silos and handed over to the Cement manufacturers/ Cement Industry.

(xiv) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational

safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.

(xv) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xvi) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(xvii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xviii) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xix) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xx) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.

(xxi) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be fire proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xxii) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xxiii) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

(xxiv) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

(xxv) The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

Agenda No. 2.0

Establishment of new natural and synthetic surfactant chemical manufacturing unit Mouza Kulepairi, P.S. Bagnan, Dist-Howrah, West Bengal by M/s Detergeo Chem (EAST) Private Limited (DCEPL) - Consideration of Environmental Clearance

[Proposal No.: IA/WB/IND3/256360/2020, File No.: IA-J-11011/1/2020-IA-II(I)]

1. The proposal is for Environmental Clearance to the Establishment of new natural and synthetic surfactant chemical manufacturing unit Mouza Kulepairi, P.S. Bagnan, District -Howrah, West Bengal by M/s Detergeo Chem (EAST) Private Limited (DCEPL).

2. The project/activity is covered under Category 'A' of 5(f) Synthetic organic chemicals industry (dyes & dye intermediates) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) as the project is located outside the notified the industrial area and appraised at Central.

3. The ToR was granted by the Ministry, vide letter no. No. IA-J-11011/1/2020-IA-II(I) dated 10.3.2020. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a Fresh EC case. **The proposal was placed in 78th EAC meeting held on 30th April,2024 wherein the proposal was deferred for want of requisite information now the proposal is placed in this 80th EAC meeting held on 7th June,2024**, wherein the PP along with accredited Consultant, M/s Mantec Consultant Pvt Ltd. (NABET Accreditation No. NABET/EIA/2326/RA 030 valid till 20.04.2026] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that the total land area is 1.3493 Ha and no R& R is involved in the Project The details of products to be manufactured are as follows:

S. No.	Product Name	CAS Number	Proposed Manufacturing Capacity (MTA)
1.	Linear Alkyl Benzene Sulphonic Acid 96%	27176-87-0	12,000
2.	Linear Alkyl Benzene Sulphonic Acid 90%	85536-14-7	12,000
3.	Alpha Olefin Sulphonate	68439-57-6	1,000
4.	Sodium Lauryl Ether Sulphate	3088-31-1	24,000
5.	Sodium Lauryl Sulphate	151-21-3	6,000
6.	Cocoamidopropyl Betaine	61789-40-0	3,000
7.	Cocamide Monoethanolamide	68140-00-1	3,000
8.	Cocamide Diethanolamide	68603-42-9	3,000
9.	Ethylene Glycol Distearate	627-83-8	3,000
10.	Ethylene Glycol Monostearate	111-60-4	3,000
11.	Dilute Sulphuric Acid	7664-93-9	12,000
12.	Sodium Sulphate	7757-82-6	400
Total Capacity			82,400

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act.

6. The PP reported that There is no wildlife sanctuary within 10 km distance from the project site. River/ water body Rupnarayan river is flowing at a distance of 3.6 km in East direction No Schedule-1 Species within 10 km distance from the project site.

7. The PP reported that Ambient air quality monitoring was carried out at 8 locations during December 2023 to February 2024 and the baseline data indicates the ranges of concentrations as: PM_{10} (52µg/m^3 to 79µg/m^3), $PM_{2.5}$ (25µg/m^3 - 46µg/m^3), $S0_2$ (9 µg/m^3- 16 µg/m^3) and $N0_2$ (15 µg/m^3 - 32 µg/m^3). AAQ modeling study for point source emission indicates that the max. incremental GLCs after the proposed project would be 0.0028 µg/m^3 0.04142 µg/m^3 and 0.0052 µg/m^3 with respect to PM_{10}, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

8. The PP reported that the total water requirement is 213 KLD of which fresh water requirement of 203 KLD will be met from State Water Tankers. Effluent of 10.7 KLD quantity will be treated through Effluent treatment plant. The plant will be based on Zero Liquid discharge system.

9. Power requirement 1000 KW. DG sets of capacity 910 KVA and 500 KVA, DG sets are used as standby during power failure. Stack (height 30 m) will be provided as per CPCB norms to the DG sets.

10. 2 TPH fired boiler will be installed. Multi cyclone separator/ bag filter with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.

11. **Details of fuel:** Proposed project required fuel.

S. No.	Name of Fuel	Use	Quantity
1.	**HSD**	DG Set 1	100 L/hr
2.	**Sulfur**	Sulphonation Plant	500 Kg/hr
3.	**LDO**	2tph Boiler	155 L/hr

12. **Details of Process Emissions Generation and its Management**: D.G. Set and Sulphonation process emissions are the main sources of air pollution.
Impact on air quality due to proposal project will be temporary rise in SPM and RSPM level likely to result from:
• Fugitive dust emissions at the construction site.
• Use of unpaved roads and trucks tracks by the construction activities.

13. **Details of Solid Waste/ Hazardous Waste Generation and its Management**:

Details of Hazardous Waste

S. No.	Name of Waste	Quantity (MTPA)	Waste Type	Disposal Method	Source of Waste	Physical Status

1.	**ETP Dried Sludge from Filter Press (Category 35.3)**	1.0 MTPA	Land Fillable	Give to TSDF	ETP Filter	Solid
2.	**Sulphur Ash**	1.0 MTPA	Utilise for further beneficial use	Sell to fertilizer industry	Expired Raw Material	Solid
3.	**Spent Oil (Category 5.1)**	15 lt/yr	Recyclable	Sell to authorized oil reclamation plant	Pumps, DG, Equipment Seals	Oily
4.	**STP Dried Sludge from Filter Press (Category 35.3)**	1MTPA	Utilise for further beneficial use	Use as manure for green belt maintenance	STP Filter	Solid

Details of Non-Hazardous Waste

S. No.	**Name of Waste**	**Quantity**	**Waste Type**	**Disposal Method**	**Source Of Waste**	**Physical Status**
1.	Discarded Plastic Bags	100 Bags/Yr	Recyclable	Give to authorized recyclers	Stores/Offices	Solid
2.	Used HDPE Drums	500/Yr	Recyclable	Re-use / Give to authorized recyclers	Plant / Warehouse	Solid

14. The Budget earmarked towards the Environment Management Plan (EMP) is ₹ 150 lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 17 lakhs per annum. Industry proposes to allocate Rs. 40 lakhs towards CER.

15. Industry has will developed greenbelt in an area of 33 % i.e 4453 Sq. m out of total area of the project.

16. The PP reported that the Public Hearing for the proposed project had been conducted by the State Pollution Control Board on 23.08.2021 under the chairman ship of Additional District Magistrate. The main issues raised during the public hearing are;

S. No.	Name of the Person	Points Raised	Replies and Action Plan	Budget
1.	Janab Monirul Islami Village- Shyampur,	He welcomed the project and asked about the wastage of the water.	The project proponent answered that no water will be discharged out of the plant area as the project has been conceived as ZLD.	1.0 Lakh/year
2.	S.K Ahed Ali Village- Subsit (Paschim)	He welcomed the proposed project and questioned about the greenery developement to be done by the project proponent.	The project proponent replied that the adequate plantation will be done to maintain a greenbelt and to comply with the environmental norms.	
3.	S.K Manirul Ali Village- Bagur (Subsit)	He welcomed the proposed project and asked about the possible noise pollution that can be caused by the project	The project proponent said that the adequate measures will be be taken to attenuate noise arising out of the project so that it meets ambient noise standards.	
4.	Janab Jahiruddin Ali Village- Patinan	He welcomed the proposed project and asked about the prospect of local employement in the project.	The project proponent replied that both skilled and unskilled workers will be employed from the local areas and also proper training will be imparted so that they can develop themselves as per the project requirement as well as for private enterpreneurship	2.0 Lakh/year

S. No.	Name of the Person	Points Raised	Replies and Action Plan	Budget
5.	Janab Jiyarul Hussain Village-Kismat Brahman	He welcomed the proposed project and asked about the prospect of local areas.	The project proponent replied that the total work strength, 60% will be from the local areas.	

17. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment officials for the functioning of EMC.

18. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

19. The estimated project cost is Rs. 20 crores. Total Employment will be 40 persons as direct & 160 persons indirect after expansion.

20. The proposal was placed in 78th EAC meeting held on 30th April,2024 wherein the proposal was deferred for want of requisite information.

S. No.	Queries Raised by EAC	Reply by PP
(i)	Details of air pollution source viz. sulphonation plant; waste heat recovery boiler; and its pollution control measures	Air Pollution Control System for Sulphonation: No air emissions are generated from the sulphonation process per say. However, the excess/vent gas from the sulphonation process in the liquid-gas separator is separated from the sulphonic acid stream and is directed to the Exhaust Gas Treatment System. The Exhaust Gas Treatment System consists mainly of the following: Wet Electrostatic Precipitator (ESP) and Wet Alkali Scrubber are provided as the key air pollution control systems. The SO2, free of residual SO3 and Acid mist released during the sulphonation process passes through the electrostatic precipitator (ESP). It employs a proprietary electrode design in an air jacketed bank of collection tubes. The High Intensity Toroidal Electron Corona (HITEC) produced by the electrode charges the inlet particulars, which are collected at the passive tube wall. Coalesced

		organic acids (bottoms) discharge at the bottom of the vessel. The gas will further pass through the alkali scrubber to neutralize the SOx gas using caustic soda, forming Na2SO3. The clean gas will be discharged into the atmosphere through a stack of 30.0 m height. Air Pollution Control System for waste heat recovery boiler Waste heat boiler does not any fuel; it recycles heat of conversion of SO_2 to SO_3 and hence, there is no air pollution Air Pollution Control System for Oil Fired Boiler Bag Filter is provided as air pollution control system to collect the PM particles. The clean gas will be discharged into the atmosphere through a stack of 30.0 m height. Overall Air Pollution Control Measures (apart from specific mitigation factors) To monitor overall air quality, online air monitoring system for stack emission (for Particulate Matter and SO2) will be installed and transmission of online data to WBPCB and CPCB will be done. 0.4470 hectares (33.12%) of greenbelt will be developed
(ii)	Details of ETP and Sewage Treatment Plant.	Instead of septic tank, modular STP will be installed; details of ETP and STP are submitted
(iii	Filter press shall be installed in place of sludge drying bed.	The proposed plant will have a filter press unit. The sludge from the clarifier tank bottom will be passed through the filter press unit to dry the sludge. There will not be a sludge drying bed. The dried sludge will further be sent to TSDF.

<table>
<tr><td>(iv)</td><td>Management of Municipal garbage generated from the proposed project site.</td><td>Municipal garbage will be collected and segregated on site. The recyclable components will be handed over to authorized recyclers in the area. Wet garbage shall be converted into compost at the site and the same shall be used a manure for the greenbelt.</td></tr>
<tr><td>(v)</td><td>Break up of capital cost and recurring earmarked for implementation of EMP</td><td>Capital cost of EMP is Rs.155.83 lakhs and recurring cost is Rs.37.85 lakhs.</td></tr>
<tr><td>(vi)</td><td>Revised CER budget along with break up.</td><td>Capital cost of CER is Rs.40.73 lakhs and recurring cost is Rs.10.73 lakhs.
<table>
<tr><th>CER Cost</th><th>Capital Cost(In Lakhs)</th><th>Recurring cost (lakhs per annum)</th></tr>
<tr><td>Skill development programs for local community</td><td>10</td><td>3.15</td></tr>
<tr><td>Solar-powered Street lighting</td><td>15.73</td><td>3.98</td></tr>
<tr><td>Fresh plantation & maintenance</td><td>15</td><td>3.60</td></tr>
<tr><td>TOTAL COST</td><td>40.73</td><td>10.73</td></tr>
</table></td></tr>
<tr><td>(vii</td><td>Action plan for development greenbelt along with number of tree to be planted and details of species as well as budget and time frame</td><td>About 0.4470 hectares (33.12%) of greenbelt will be developed within the plant premises. The development of the greenbelt will involve a capital cost of Rs. 22.36 lakhs and a recurring cost of Rs. 3.52 lakhs throughout the project's life.</td></tr>
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(vi	Consultant shall provide quantified measures to be taken for air pollution control (utilities & process); Wastewater management; Greenbelt Development; solid waste management; Noise Environment; capital and recurring cost earmarked for EMP including CER; Post monitoring plan in Environment Management Plan chapter of EIA report. Revised EIA report shall be uploaded on Parivesh portal.	The EIA Report is updated with due consideration of the suggested points. The revised EIA is submitted.

21. **Deliberations by the EAC**:

PP has submitted the details of CER activity –wise

Tree Plantation Plan			
Cost per tree	₹2,000	Cost for replantation (5% of investment)	₹75,000
No of trees	750	Gardener @ Rs 20,000/PM	₹240,000
Proposed investment	**₹1,500,000**	**Total Recurring Cost (per year)**	**₹315,000**
Solar Street Light			
Cost per street light (60 W)	₹18,500	Spares for Repair & Maintenance (10% of investment)	₹1,85,000
No of solar street lights	100	Electrician @ Rs 20,000/PM	₹240,000
Proposed investment	**₹1,850,000**	**Total Recurring Cost (per year)**	**₹425,000**
Solid Waste Management			
Cost per waste bin (Green & Blue 120 L each)	₹10,000	Replacement/Maintenance cost (10% of investment)	₹90,000
No of waste bins	30	Waste Collection Vehicle Running Cost	₹150,000
Waste Collection Vehicle	₹600,000	Waste Collection Vehicle Driver @ Rs 20,000/PM	₹240,000
		Waste Segregation Awareness Workshops At Panchayat	₹60,000

Proposed investment	₹900,000	Total Recurring Cost (per year)	₹540,000
Total proposed investment	₹4,250,000	Total Recurring Cost on CER investment (per year)	₹1,280,000

PP submitted the details of STP and ETP.

PP submitted the details breakup of EMP.

			Recurring cost (per annum)
Electrostatic Precipitator (ESP)	₹6,636,000	Electricity consumption to run the ESP (500 units/day)	₹1,350,000
Alkali Scrubber	₹1,411,200	Caustic lye consumption to run Alkali Scrubber (100 kg/day)	₹518,400
		Maintenance cost (5% of investment)	₹402,360
Air Pollution Control investment	**₹8,047,200**	**Total Recurring Cost (per year)**	**₹2,270,760**
Effluent Treatment Plant (15 KLPD)	₹2,500,000	Flocculant cost (Dosage: 500mg/L)	₹412,500
Rainwater Harvesting Pit/Collection Tank	₹2,000,000	Electricity consumption to run the ETP (250 units/day)	₹675,000
		Maintenance cost (5% of investment)	₹225,000
Effluent Treatment Plant & Rainwater Harvesting investment	**₹4,500,000**	**Total Recurring Cost (per year)**	**₹1,312,500**

Continuous Ambient Air Quality Monitoring System	₹650,000	Maintenance cost (5%)	₹50,000
Noise Monitoring Sensor	₹350,000		
Water Monitoring Sensor			
Environment Monitoring & Management investment	**₹1,000,000**	**Total Recurring Cost (per year)**	**₹50,000**
Membership of TSDF	₹200,000	TSDF Disposal cost (Rs 25,000/ton)	₹25,000
Modular STP	₹800,000	Replacement/Maintenance cost (10% of investment)	₹80,000
Solid and Hazardous Waste Management investment	**₹1,000,000**	**Total Recurring Cost (per year)**	**₹105,000**
Fire protection equipment	₹1,500,000	Replacement/Maintenance cost (10% of investment)	₹210,000
First Aid Room & Equipment	₹500,000	Visiting Doctor (Once a week + emergency)	₹500,000
		Health awareness Program and Training	₹100,000
Safety gear (helmet, gloves, safety shoes) for employees	₹100,000	Workplace Safety Training to Workers	₹50,000
		First Aid Training	₹50,000
		EHS Audit	₹150,000
Occupational Health and Safety investment	**₹2,100,000**	**Total Recurring Cost (per year)**	**₹1,060,000**

Number of trees	1118	Cost for replantation (5% of investment)	₹111,800
Cost per tree	₹2,000	Gardener @ Rs 20,000/PM	₹240,000
Green Belt Development investment	**₹2,236,000**	**Total Recurring Cost (per year)**	**₹351,800**
Total proposed EMP investment	**₹18,883,200**	**Total Recurring Cost (per year)**	**₹5,150,060**

PP submitted the revised Greenbelt development plan along with its layout.

A greenbelt of 0.4470 Ha. (33.12%) will be developed in the plant premises 4m-10m wide greenbelt will be developed in and around the plant premises. Plantation of 2*2m plant spacing and 2m row-to-row spacing will be done. The plant density of 2500 trees per hectare with local native species will be implemented. The expenditure on development and maintenance of green belt is of revenue nature and sufficient fund shall be provided to meet the requirement. The plantation schedule will be completed within five years from the construction period of the project. The following shall be designed and implemented as per the latest CPCB guidelines.

Total Trees required as per CPCB/MoEF&CC Norms@2500/Ha = 0.4470 x 2500 = 1118 **No's.**

PP informed that the EIA Report and Chapter 10 EMP is updated with due consideration of the suggested points.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members /domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has

been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance with the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during the implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The expert members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

24. **The EAC, after detailed deliberations, <u>recommended</u> the project for the grant of environmental clearance, <u>subject to the compliance of the terms and conditions</u> as under, and general terms and conditions in Annexure-I:**

(i) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii) Wet Electrostatic Precipitator (ESP) and Wet Alkali Scrubber shall be provided to sulphonation process for treatment of SO_2 and SO_3. Bagfilter alongwith stack height of 30 m shall be provided to oil fired boiler to control particulate emissions as per the prescribed limits of CPCB.

(iii) Fresh water requirement shall not exceed 203 KLD from State approved water tanker suppliers.

(iv) NOC from the Concerned Authority shall be obtained before start of the construction of plant and drawing water from ground water source. State Pollution Control Board shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

(v) Effluent generation shall not exceed 10.7 KLD. Effluent shall be treated in the ETP comprising primary, secondary and tertiary treatment namely RO and treated water shall be re-used in the scrubber. RO rejects shall be concentrated in MEE. Domestic wastewater of 1.6 KLD shall be treated in the STP and treated wastewater shall be recycled/reused for horticulture purpose.

(vi) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB.

(vii) The green belt has been developed in 0.4470 Ha. (33.12%) with tree density @ 2500 trees per hectares), mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(viii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions by engaging Environment Officials. In addition to this, one safety & health officer as per the qualification given in Factories Act, 1948 shall be engaged within a month of grant of EC. The PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(ix) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under existing EMP Rs. 18,883,200 (Capital cost) and ₹ ₹5,150,060 Lakhs per Annum (Recurring cost)] shall be kept in a separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(x) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as ETP sludge shall be either sent to TSDF. Spent catalyst shall be sent to Authorized recyclers. Municipal solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development.

(xi) The PP shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(xii) The project proponent shall comply with the environment norms for 'synthetic organic chemicals' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21st July, 2010 under the provisions of the Environment (Protection) Rules, 1986.

(xiii) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.

(xiv) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xv) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xvi) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xvii) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xviii) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xix) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

(xx) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places.

(xxi) Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Chemicals shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xxii) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

(xxiii) The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

ANNEXURE-I

GENERAL EC CONDITIONS

- No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- The PP shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
- The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- A copy of the clearance letter shall be sent by the PP to concerned Panchayat, ZillaParishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- The PP shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A

copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.

- The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.
- The PP shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at **https://parivesh.nic.in/**. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

***

Annexure-II

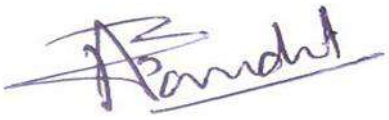
List of members of the Expert Appraisal Committee (Industry-3) attended Video Conferencing (VC) meeting in Day -2

S. No.	Name of Member	Designation
1.	**Prof. (Dr.) A.B. Pandit**	Chairman
2.	**Dr. Suresh Panwar**	Member
3.	**Prof. (Dr.) Vijayanand S. Moholkar**	Member
4.	**Dr. (ER.) Dibakar Swain**	Member
5.	**Shri Dinabandhu Gouda**	Member
6.	**Dr. Kishore Malviya**	Member
7.	**Shri Dinesh Runiwal,**	Member
8	**Prof. (Dr.) Suneet Dwivedi**	Member
9	**Dr. P. Jagannadha Rao**	Member
10.	**Dr. D. S. Pai**	Member
11.	**Shri A N Singh**	Member Secretary
MOEFCC		
1.	**Dr. Kanchan Puri**	Scientist-B
2.	**Dr. S. Pradeep Kumar**	Scientist-B
3.	**Dr. Bhawana Kapkoti Negi**	Technical Officer

(Day-2)

***

MOM approved by



(Prof. Aniruddha B. Pandit)

Chairman

रजिस्ट्री सं. डी.एल.- 33004/99 REGD. No. D. L.-33004/99

भारत का राजपत्र
The Gazette of India

सी.जी.-डी.एल.-अ.-10052022-235675
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असाधारण
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)
PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं. 2058] नई दिल्ली, सोमवार, मई 9, 2022/वैशाख 19, 1944
No. 2058] NEW DELHI, MONDAY, MAY 9, 2022/VAISAKHA 19, 1944

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 9 मई, 2022

का.आ. 2163(अ).—केन्द्रीय सरकार के तत्कालीन पर्यावरण और वन मंत्रालय ने पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उपधारा (1) और उसकी उपधारा (2) के खंड (v) के अधीन अपनी शक्तियों का प्रयोग करते हुए, परियोजनाओं के कतिपय प्रवर्ग के लिए पूर्व पर्यावरण अनापत्ति (ईसी) को अनिवार्य बनाने के लिए, का.आ. सं. 1533(अ), तारीख 14 सितंबर, 2006 द्वारा पर्यावरण समाघात निर्धारण अधिसूचना, 2006 (जिसे इसमें इसके पश्चात् ईआईए अधिसूचना 2006 कहा गया है) प्रकाशित की थी ;

और, पूर्व पर्यावरण अनापत्ति की मंजूरी के लिए जन सुनवाई अनिवार्य है और यह तब तक पर्यावरण प्रक्रिया का अभिन्न अंग है, जब तक, समय-समय पर यथा संशोधित, पर्यावरण समाघात निर्धारण अधिसूचना, 2006 में यथा उल्लिखित कतिपय क्रियाकलापों के लिए विनिर्दिष्ट रूप से छूट न दे दी जाए ;

और, कतिपय अवसरों पर, जन सुनवाई को विभिन्न कारणों से, जो प्राय: परियोजना प्रस्तावक के नियंत्रण से परे होते हुए स्थगित कर दिया गया है और ईआईए अधिसूचना 2006 के उपबंधों के अनुसार, जन सुनवाई की संपूर्ण प्रक्रिया नए सिरे से आरंभ करनी होती है, जिसका परिणाम पर्यावरण अनापत्ति प्रक्रिया को पूरा करने में अनुचित विलंब होता है ;

और, ऐसे कारकों में एक कारक, जिसका परिणाम जन सुनवाइयों में विलंब या उनका स्थगन होता है, जन सुनवाई की कार्यवाहियों की अध्यक्षता करने के लिए जिला मजिस्ट्रेट या अतिरिक्त जिला मजिस्ट्रेट की पंक्ति से अन्यून उसके प्रतिनिधि की अनुपलब्धता है ;

और, केंद्रीय सरकार को जन सुनवाई संबंधी कार्यवाही को सुव्यवस्थित करने के लिए अभ्यावेदन प्राप्त होते रहे हैं ;

और, केंद्रीय सरकार, अंतर्वलित जनहित को ध्यान में रखते हुए, परियोजना से संबंधित जानकारी तक पहुंच में व्यवधान डाले बिना,अनुचित विलंबों को कम करके और जन भागीदारी को सुकर बनाकर जन सुनवाई की प्रक्रिया को सुव्यवस्थित करने के लिए तथा ऐसे विलंब से बचने हेतु जन सुनवाई की अध्यक्षता करने के लिए उपमंडल मजिस्ट्रेट की पंक्ति से अन्यून पंक्ति के अधिकारी को प्राधिकृत करने हेतु जिला मजिस्ट्रेट के लिए भी व्यवस्था करना, आवश्यक समझती है;

और, केंद्रीय सरकार यह और आवश्यक समझती है कि अधिसूचना का.आ. सं0 236(अ), तारीख 16 जनवरी, 2020 द्वारा यथा संशोधित अपतट और तटीय तेल और गैस खोज, विकास एवं उत्पादन के संबंध में अनुसूची 1(ख) में संदिग्धता को स्पष्ट किया जाए और चूंकि केंद्रीय सरकार ने, खान पट्टा क्षेत्र को ध्यान में रखे बिना, राज्य पर्यावरण समाघात निर्धारण प्राधिकरण को सभी लघु खनिज खनन परियोजनाओं को पर्यावरण अनापत्ति प्रदान करने की शक्ति प्रत्यायोजित की है, लघु खनिजों के लिए साधारण शर्त की प्रयोज्यता ने इसके परिणामस्वरूप अपनी सुसंगतता खो दी है, इस संबंध में, केंद्रीय सरकार यह भी आवश्यक समझती है कि लघु खनिजों के खनन के लिए साधारण शर्त के लागू होने को हटाया जाए ;

अत:, अब, केंद्रीय सरकार, पर्यावरण (संरक्षण)नियम, 1986 के नियम 5 के उपनियम (4) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (1) और उपधारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, जनहित में, उक्त नियम के नियम 5 के उपनियम (3) के खंड (क) के अधीन सूचना की अपेक्षा से अभिमुक्त होने के पश्चात्, भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना का.आ. सं. 1533(अ), तारीख 14 सितंबर, 2006 में निम्नलिखित और संशोधन करती है, अर्थात् :--

उक्त अधिसूचना में,--

(क) अनुसूची में,--

(i) मद 1(क) के सामने, स्तंभ (5) में, "सामान्य शर्तें लागू होंगी" शब्दों से आरंभ होने वाले और "नदी तल खनन परियोजनाएं ।" शब्दों पर समाप्त होने वाले भाग के स्थान पर, निम्नलिखित रखा जाएगा, अर्थात् :--

"सामान्य शर्तें लघु खनिजों के खनन के सिवाए लागू होगी ।";

(ii) मद 1(ख) के सामने, स्तंभ (3) में, "के सिवाए" शब्दों के स्थान पर, "सहित या रहित" शब्द रखे जाएंगे;

(ख) परिशिष्ट 4 में,--

(i) पैरा 3 में, उपपैरा 3.3 के पश्चात्, निम्नलिखित उपपैरा सम्मिलित किया जाएगा, अर्थात् :--

"3.3 (क). पैरा 3.3 में निर्दिष्ट किसी ऐसे स्थान की दशा में, पुन:नियत की गई जन सुनवाई आयोजित करने की समयावधि जन सुनवाई की आरंभिक तारीख के लिए पैरा 3.1 के अनुसार पहले से ही प्रकाशित प्रथम विज्ञापन की तारीख से कम से कम पैंतालीस दिन से कम की नहीं होनी चाहिए और यह सुनिश्चित किया जाएगा कि पन्द्रह दिन की न्यूनतम सूचना अवधि लिखित में उत्तर प्रस्तुत करने के लिए जन सुनवाई पुन: नियत की गई तारीख से पूर्व जनता को उपलब्ध कराई जाएगी : परंतु यह तब जबकि पैरा 2.2 में यथा उल्लिखित संबद्ध प्राधिकरणों के साथ एसपीसीबी या यूटीपीसीसी यह सुनिश्चित करेंगे कि सभी अपेक्षित दस्तावेज, सुनवाई की आरंभिक तारीख के लिए प्रकाशित प्रथम विज्ञापन की

तारीख से उपपैरा 2.3 और उप पैरा 2.4 के अनुसार पुन:नियत की गई जन सुनवाई के आयोजित होने तक जनता के लिए उपलब्ध हैं ।";

(ii)पैरा 4.0 में,--

(क) "किसी अपर जिला मजिस्ट्रेट से अन्यून की पंक्ति का उसका प्रतिनिधि" शब्दों के पश्चात्, "या उसके द्वारा इस निमित्त प्राधिकृत कोई अन्य जिला स्तरीय अधिकारी" शब्द अंत:स्थापित किए जाएंगे ;

(ख) विद्यमान पैरा के पश्चात्, निम्नलिखित परंतुक अंत:स्थापित किया जाएगा, अर्थात् :--

"परंतु यदि कोई परियोजना या क्रियाकलाप एक उपखंड की राजक्षेत्रीय अधिकारिता तक सीमित है तो, यथास्थिति, जिला मजिस्ट्रेट/ जिला कलेक्टर/उपायुक्त, यथास्थिति, एसपीसीबी या यूटीपीसीसी के प्रतिनिधि द्वारा सहायता प्राप्त संपूर्ण जन सुनवाई प्रकिया का पर्यवेक्षण और उसकी अध्यक्षता करने के लिए उपखंड मजिस्ट्रेट की पंक्ति से अन्यून की पंक्ति के किसी अधिकारी को अनुकल्पी रूप से प्राधिकृत कर सकेगा ।"।

[फा. सं. आईए 3-22/10/2022-आईए.III-भाग(1)]

डा. सुजीत कुमार बाजपेयी, संयुक्त सचिव

टिप्पण : मूल अधिसूचना भारत के राजपत्र, असाधारण, भाग 2, खंड 3, उपखंड (ii) में का.आ. सं. 1533(अ) तारीख 14 सितंबर, 2006 द्वारा प्रकाशित की गई थी और अधिसूचना सं. का.आ. 1953(अ) तारीख 27 अप्रैल, 2022 द्वारा उसमें अंतिम बार संशोधन किया गया था ।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 9th May, 2022

S.O. 2163(E).—Whereas, the Central Government in the *erstwhile* Ministry of Environment and Forests, in exercise of its powers under sub-section (1) and clause (v) of sub-section (2) of section (3) of the Environment (Protection) Act, 1986 has published the Environment Impact Assessment Notification, 2006 (hereinafter referred to as the EIA Notification, 2006) vide number S.O.1533 (E), dated the 14th September, 2006, for mandating prior Environmental Clearance (EC) for certain category of projects;

And whereas, for the grant of prior EC, public hearing is mandatory and it is an integral part of the EC process, unless specifically exempted for certain activities as mentioned in the EIA Notification 2006, as amended from time to time;

And whereas, on certain occasions, the public hearings have been postponed due to various reasons often being beyond the control of the Project Proponent and as per the provisions of the EIA Notification 2006, the whole process for the public hearing is to be started afresh resulting in undue delay in completing the EC process;

And whereas, one of the factors which results in delay or postponement of the public hearings is the non-availability of the District Magistrate or his representative not below the rank of an Additional District Magistrate to preside over the proceedings of the public hearing;

And whereas, the Central Government has been receiving representations to streamline the public hearing process;

And whereas, the Central Government taking into account the public interest involved, deems it necessary to streamline the process of the public hearing by reducing undue delays and facilitating public participation without interrupting the access to the information pertaining to the project and also make a provision for the District Magistrate to authorise an officer not below the rank of Sub-Divisional Magistrate to preside over the Public Hearing to avoid such delay;

And whereas, the Central Government further deems it necessary to clarify the ambiguity in Schedule 1(b) with regard to off-shore and on-shore oil and gas exploration, development and production, as amended *vide* notification no. S.O. 236(E), dated the 16th January, 2020 and as the Central Government has delegated the power to the State Environmental Impact Assessment Authority to grant ECs to all minor mineral mining projects, irrespective of mine lease area, the applicability of the general condition for minor minerals has lost its relevance thereby, in this regard, the Central Government also deems it necessary to remove the applicability of the general condition for mining of minor minerals;

Now therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986), readwith sub-rule(4) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government, after having dispensed with the requirement of notice under clause (a) of sub-rule(3) of rule 5 of the said rules, in public interest, hereby makes the following further amendments in the notification of the Government of India in the *erstwhile* Ministry of Environment and Forests number S.O. 1533 (E), dated the 14th September, 2006, namely:-

In the said notification,-

(A) In the Schedule,-

(i) against item 1(a), in column (5), for the portion beginning with the words "General Conditions shall apply except:" and ending with the words "on account of inter-state boundary", the following shall be substituted, namely:-

"General Conditions shall apply except for mining of minor minerals.";

(ii) against item 1(b), in column (3), for word "*except*", the words "*with or without*" shall be substituted;

(B) in Appendix IV,-

(i) in paragraph 3, after sub-paragraph 3.3, the following sub-paragraph shall be included namely :-

"*3.3 (a) In the event of any such postponement referred to in sub-paragraph 3.3, the time duration for convening the rescheduled public hearing should not be less than forty-five days from the date of first advertisement already published in accordance to para 3.1 for initial date of public hearing and it shall be ensured that a minimum notice period of fifteen days shall be provided to the public before the re-scheduled date of the public hearing, for furnishing the responses in writing: Provided that SPCB or UTPCC along with concerned authorities, as mentioned at para 2.2, shall ensure that all requisite documents are available to public in accordance with sub-paragraphs 2.3 and 2.4 from the date of first advertisement published for the initial date of public hearing till convening of the rescheduled public hearing.*";

(ii) in paragraph 4.0,-

(a) after the words "*his or her representative not below the rank of an Additional District Magistrate*", the words "*or any other District Level Officer authorised by him or her in this behalf"* shall be inserted;

(b) after the existing paragraph, the following proviso shall be inserted, namely :-

"*Provided that in case the project or activity is confined to the territorial jurisdiction of one sub-division, the District Magistrate/District Collector/Deputy Commissioner, as the case may be, may alternatively authorise any officer not below the rank of Sub-Divisional Magistrate to supervise and preside over the entire public hearing process assisted by a representative of SPCB or UTPCC, as the case may be.*".

Note: The principal notification was published in the Gazette of India, Extraordinary, Part II, section 3, sub section(ii), *vide* number S.O. 1533(E), dated the 14th September, 2006 and was last amended, *vide* the notification number S.O. 1953(E), dated the 27th April, 2022.

[F. No. IA3-22/10/2022-IA.III-Part(1)]

Dr. SUJIT KUMAR BAJPAYEE, Jt. Secy.

Note: The principal notification was published in the Gazette of India, Extraordinary, Part II, section 3, sub section(ii), *vide* number S.O. 1533(E), dated the 14th September, 2006 and was last amended, *vide* the notification number S.O. 1953(E), dated the 27th April, 2022

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GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)
*****

Dated: 2.9.2024

MINUTES OF THE 84th EXPERT A84PPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON 21st & 22nd August, 2024

Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003 through Video Conferencing (VC)

Time: 10:30 AM onwards

(i) Opening Remarks by the Chairman

Prof. (Dr.) A.B. Pandit, Chairman welcomed the Committee members and opened the EAC meeting for further deliberations.

(ii) Details of Agenda items by the Member Secretary

The Member Secretary then apprised the Committee about the details of Agenda items to be discussed during this Expert Appraisal Committee (EAC) meeting.

(iii) Confirmation of Minutes of the 83rd EAC Meeting held on 31st July and 1st August, 2024.

The EAC noted that the final minutes of the above meeting were issued after incorporating the comments offered by the members and approved by the Chairman.

Agenda No.84.1

Expansion of the Existing Formaldehyde and Resin and Proposed API Manufacturing Unit [Total Production Capacity after Expansion: - 12670.25 MT/Month] located at Survey No. 219 Paiky-2, 220 & 223 Paiky-1, Village: Juna Sadulka, Opp. Dadashrinagar, Taluka: Morbi, Dist: Morbi, Gujarat by M/s Aatmajyot Chem Private limited - Reconsideration of EC

[Proposal No. IA/GJ/IND3/421162/2023 File No. J-11011/72/2014-IA-II(I))]

1. The proposal is for the environmental clearance for the Expansion of the Existing Formaldehyde and Resin and Proposed API Manufacturing Unit [Total Production Capacity after Expansion: - 12670.25 MT/Month] located at Survey No. 219 Paiky-2, 220 & 223 paiky-1, Village: Juna Sadulka, Opp. Dadashrinagar, Taluka: Morbi, Dist: Morbi, Gujarat by M/s Aatmajyot Chem Private limited.

2. The Committee noted that the proposal was considered by the EAC (Ind-3) in its meeting held on 19th – 21st April, 2023 and the Committee recommended the proposal for grant of Environmental Clearance. During the processing the file it

was observed that GPCB had filed a court case against the project proponent in CIVIL COURT, MORBI on 10.08.2022 under Section 15 and 19 of the Environment (Protection) Act, 1986.

3. Further, MoEF&CC had asked IRO Gandhi Nagar to verify the actual installed capacity of formaldehyde production unit at the project site and submit the report. Accordingly, IRO, Gandhi Nagar vide their letter dated 22.07.2024 informed that they had conducted inspection for verification of existing capacity of the plant. Further, it was decided to refer the matter to the EAC (Industry -3) for clarity on the issues and Official from IRO to be requested to attend the EAC meeting.

4. The proposal was placed in 84th EAC Meeting held on 21st – 22nd August, 2024, in which proposal was deliberated in presence of PP, Environmental Consultant and Dr. Yogesh Kumar, Scientist C, IRO Gandhi Nagar. PP confirmed that GPCB regional officer had filed the court case for violating the EIA Notification, 2006 under E (P) A, 1986. The reason behind the case filed was that the project proponent constructed an additional 100 TPD formaldehyde plant despite having the existing 50 TPD formaldehyde plant without obtaining approval from GPCB and MoEF&CC, New Delhi. Dr. Yogesh Kumar, Scientist C, RO Gandhi Nagar informed that during inspection total installed capacity of the formaldehyde plant was 150 TPD at project site, out of which, 100 TPD formaldehyde plant was functional and 50 TPD plant was sealed by GPCB. However, the permissible installed capacity in the existing EC was 100 TPD.

5. After detailed deliberation, it was noted that instant proposal is a violation case. Accordingly, PP needs to apply online under the VIOLATION category in the PARIVESH portal for further consideration by EAC.

6. The proposal was returned in its present form.

Agenda No. 84 .2

Proposed API and API intermediates Manufacturing unit of capacity 15600 TPA located at Survey No. 48/1, 48/2, 48/3A, 48/3B, 49/1, 55/1A, Village- Honad, Taluka- Khalapur, District - Raigad, Maharashtra by M/s. Rama Enterprises- Consideration of Environmental Clearance

[Proposal No. IA/MH/IND3/450731/2023; File No.: IA-J-11011/440/2021-IA-II(I)]

1. The proposal is for Environmental Clearance to the Proposed API and API intermediates Manufacturing unit of capacity 15600 TPA located at Survey No. 48/1, 48/2, 48/3A, 48/3B, 49/1, 55/1A, Village- Honad, Taluka- Khalapur, District - Raigad, Maharashtra by M/s. Rama Enterprises.

2. The project/activity is covered under Category 'A' of Item 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) as the project is located outside the notified industrial area.

3. The ToR was issued by the Ministry, vide letter no. IA-J-11011/440/2021-IA-II(I) dated 2.11.2021. The PP applied for the Environment Clearance in the Common Application Form and submitted the EIA/EMP Report and other documents. The PP in the CAF reported that it is a **Fresh case.** The proposal was placed in the 73rd EAC meeting held on16th January,2024 wherein the PP and an accredited Consultant, M/s. Anacon Laboratories Pvt. Ltd., Nagpur [NABET accreditation till NABET/EIA/2326/RA 0304 Valid up to 29th Sept. 2026], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 25580 m^2 will be used for the proposed project and no R& R is involved in the Project. The details of various products are as follows:

Sr. No.	Product Name	CAS No.	Proposed Quantity (TPA)	Uses
A.	**Inorganic Iodine Derivatives**		**240**	
1	Sodium Iodide	7681-82-5		*Food supplement, Organic synthesis* Nuclear medicine Thallium-doped NaI (Tl) scintillators
2	Potassium Iodide	7681-11-0		Dietary supplement, Thyroid protection Nuclear accidents
3	Ammonium Iodide	12027-06-4		Photographic chemicals and some medications.
4	Copper Iodide	7681-65-4		Organic synthesis to cloud seeding.
5	Zinc Iodide	10139-47-6		As an x-ray opaque penetrant in industrial radiography to improve the contrast between the damage and intact composite.
6	Silver Iodide	7783-96-2		Weather modification applications such as cloud seeding or anti-hail systems. Other uses for silver iodide include serving as an antiseptic material and a photosensitive material in photography.
7	Calcium Iodate	7789-80-2		Iodine supplement in chicken feed. Calcium iodate is used in the manufacture of disinfectants, antiseptics, and deodorants.
8	Potassium Iodate	7758-05-6		Potassium iodate is sometimes used for iodination of table salt to prevent iodine deficiency. Because iodide can be oxidized to iodine by molecular oxygen under wet conditions, US companies add thiosulfates or other antioxidants to the potassium iodide. In other countries, potassium iodate is used as a source for dietary iodine. It is also an ingredient in some baby formula milk. Like potassium bromate, potassium iodate is occasionally used as a maturing agent in baking.
9	Sodium Iodate	7681-55-2		It is commonly used in leavened products such as bread, rolls, and sweet rolls.
10	Sodium Metaperiodate	7790-28-5		Useful reagent for the oxidation of carbohydrates prior to labeling with biotin hydrazide Top of Form Bottom of Form
11	Potassium Metaperiodate	7790-21-8		Potassium metaperiodate is used as an oxidizing agent in organic synthesis and an analytical reagent for the determination of potassium and cerium. It is also used in colorimetric estimation of manganese.

Sr. No.	Product Name	CAS No.	Proposed Quantity (TPA)	Uses
A.	**Inorganic Iodine Derivatives**		**240**	
12	Lithium Iodide (Hydrate)	85017-80-7		Lithium iodide is used as a solid-state electrolyte for high-temperature batteries. It is also the standard electrolyte in artificial pacemakers due to the long cycle life it enables.
13	Nickel Iodide	13462-90-3		Nickel Iodide has found some industrial applications as a catalyst in carbonylation reactions. It is also having niche used as a reagent in organic synthesis, especially in conjunction with samarium (II) iodide.
14	Lead Iodide	10101-63-0		The applications of lead iodide are in printing, bronzing, mosaic gold and photography. It is also used as a detector for high-energy photons such as X- rays and gamma rays.
15	Cadmium Iodide	7790-80-9		Cadmium iodide is used to make phosphors (things that light when struck by UV light), photography, and electroplating.
16	Thallium Iodide	7790-30-9		Thallium (I) iodide is added to mercury arc lamps to improve their performance The light produced is mainly in the blue green part of the visible light spectrum least absorbed by water, so these have been used for underwater lighting.
17	Antimony Iodide	7790-44-5		Antimony Iodide has been used as a dopant in the preparation of thermoelectric materials.
18	Hydroiodic Acid	10034-85-2		Hydroiodic acid is listed as a U.S. Federal DEA List IChemical, owing to its use as a reducing agent related to the production of methamphetamine from ephedrine or pseudoephedrine (recovered from nasal decongestant pills).
19	Calcium Iodide (Hydrate)	10102-68-8		It is used in photography. It is also used in cat food as a source of iodine.
20	Iodine Monochloride	7790-99-0		It is used to make other chemicals, in laboratories, and as a disinfectant.
21	Iodic Acid	7782-68-5		Iodic acid is used as a strong acid in analytical chemistry. It may be used to standardize solutions of both weak and strong bases, using methyl red or methyl orange as the indicator.
22	Per-Iodic Acid	10450-60-9		Used in histology to stain carbohydrate-rich macromolecules such as glycogen, glycoprotein and proteoglycans, commonly found in connective tissue, basal laminae, fungi and certain bacteria.

Sr. No.	Product Name	CAS No.	Proposed Quantity (TPA)	Uses
A.	**Inorganic Iodine Derivatives**		**240**	
23	Methyl Iodide	74-88-4		Iodomethane (Methyl iodide) may be employed in the preparation of stable neutral solutions of hypoiodous acid and various methyl esters.
24	Ethyl Iodide	75-03-6		Iodoethane has been used for performing gas-phase experiments for recording extreme ultraviolet (XUV) photoelectron spectra.
25	1-Iodopropane	107-08-4		1-Iodopropane can be used for the alkylation of pyrrole by reacting with potassium salts of pyrrole to synthesize 1-*n*-propylpyrrole. It can also be used as an *n*-alkyl iodide model for the vibrational studies.[
26	2 – Iodopropane	75-30-9		2-Iodopropane (Isopropyl iodide) was used to prepare butyric and isobutyric acid.
27	Iodobenzene	591-50-4		Iodobenzene is used in various C-C coupling reactions.[1][2][3] It can be used in the preparation of Iodobenzene dichloride, which is employed as an oxidant to oxidize alcohols to carbonyl compounds[4] and as a chlorinating agent.
28	2-Iodobenzoic Acid	88-67-5		2-Iodobenzoic acid can be used as a reactant in the synthesis of oligo (*m*-phenylene ethynylenes),[1] (±)-lycoricidine[2] and various detoxifiers of organophosphorus nerve agents.[3][4] Additionally, it is used as a precursor in the preparation of oxidizing reagents like 2-iodoxybenzoic acid (IBX) and Dess-Martin periodinane (DMP).
29	3-Iodobenzoic Acid	618-51-9		3-Iodobenzoic acid was used in solid phase synthesis of γ-turn mimetic library.
30	4-Iodobenzoic acid	619-58-9		4-Iodobenzoic acid was used in the synthesis of [hydroxyl (4-carboxyphenyl) iodonium] ion *in situ* that helps in the cleavage of a variety of alkenes.
31	2-Iodoaninile	615-43-0		2-Iodoaniline is a synthetic intermediate for the synthesis of complex organic compounds and pharmaceuticals.
32	3-Iodoaninile	626-01-7		It is used to manufacture fine chemicals. - 3-Iodoaniline is used as Anilines, Aromatic Amines and Nitro Compounds. - 3-Iodoaniline can be used in the synthesis of: 3-pyridin-4-ylaniline: it is a reactant use as anti-diabetic agents.
33	4-Iodoaninile	540-37-4		4-Iodoaniline is an iodine substituted aniline that is widely used as chemical intermediates in the manufacturing of pesticides, dyes and drugs.
34	Iodobutane	542-69-8		It is used as an alkylating agent.

Sr. No.	Product Name	CAS No.	Proposed Quantity (TPA)	Uses
A.	**Inorganic Iodine Derivatives**		**240**	
35	Tri Methyl Sulfoxonium Iodide	1774-47-6		It is used to generate dimethyloxosulfonium methylide by reaction with sodium hydride. The latter compound is used as a methylene-transfer reagent, and is used to prepare epoxides.
36	3,5 Diiodo salicylic acid	133-91-5		3, 5-Diiodosalicylic Acid is used in wide range of medicals, industrial applications as well as in human and animal nutrition products such as antiseptics and disinfectants, pharmaceutical intermediates, polarizing films for liquid crystal display [LCD] chemicals.
37	Diiodomethane	75-11-6		Di-iodomethane has been used as a probe liquid for evaluation of the polar and dispersive components of the surface energy of the catecholamine coated fiber surfaces. It may be used for the preparation of cyclopropyl ketones, esters and amides.
38	Diiodoethane	624-73-7		To synthesize samarium (II) iodide-water complex (SmI2-H2O complex), a single-electron transfer reagent, to further synthesize 3-hydroxy carboxylic acids. To synthesize derivatives of region-selective homopropargyl alcohols by using sonochemical Barbier-type reaction conditions.
B.	**Inorganic Bismuth Derivatives**		**60**	
39	Bismuth Oxide	1304-76-3		Used for applications such as optical coatings, metal-insulator-semiconductor capacitors and microwave-integrated circuits. Bismuth oxide is commonly used to produce the "Dragon's eggs" effect in fireworks, as a replacement of red lead.
40	Bismuth Citrate	813-93-4		Tritec (ranitidine, bismuth, citrate) is a combination of a histamine receptor antagonist, and antibiotic, and a form of salt used to decrease the amount of acid in the stomach and to treat Helicobacter pylori, a bacterial infection involved in causing stomach ulcers.
41	Bismuth Subsalicylate	14882-18-9		Bismuth subsalicylate is used to treat diarrhea, heartburn, and upset stomach in adults and children 12 years of age and older. Bismuth subsalicylate is in a class of medications called antidiarrheal agents.
42	Bismuth Subgallate	99-26-3		The most common medical purpose for which bismuth subgallate is currently and formally indicated for is the use as a non-prescription internal deodorant product for the purpose of deodorizing flatulence and stools.

Sr. No.	Product Name	CAS No.	Proposed Quantity (TPA)	Uses
A.	**Inorganic Iodine Derivatives**		**240**	
43	Bismuth Carbonate	5892-10-4		It is highly radiopaque and for example is used as a filler in radiopaque catheters which can be seen by x-ray. In modern medicine, bismuth sub carbonate has been made into nanotube arrays that exhibit antibacterial properties. It is also used in fireworks to make Dragon's eggs.
44	Bismuth Nitrate	10035-06-0		It is used in the synthesis of other bismuth compounds.
45	Bismuth Hydroxide	10361-43-0		Bismuth hydroxide is used for the removal of nitrate and other anions from water, it is used in nano plate-based carbon dioxide gas sensor, it is also used for the hydrolysis of ribonucleic acid and as an absorbent for rutin and quercetin.
46	Bismuth Subnitrate	10361-46-3		Used as a treatment for duodenal ulcers and anti-diarrheic agent.
47	Bismuth Sulphate	7787-68-0		Bismuth Sulphate is used as catalyst in synthesis
48	Bismuth Oxychloride	7787-59-9		Used in cosmetic industry, for manufacturing white pigments, in plastic industries.
C.	**Inorganic Selenium Derivatives**		**60**	
49	Sodium Selenite	10102-18-8		Sodium selenite is mainly used in the manufacture of colorless glass. The pink color imparted by these selenites cancels out the green color imparted by iron impurities. It is also used for medication purpose.
50	Sodium Selenate	10102-23-5		Sodium selenate is an insecticide used in horticulture for the control of mites, aphids, and mealybugs. It is also used as a fungicide
D.	**Anti Covid-19**		**120**	
51	Dexamethazone	50-02-2		It relieves inflammation (swelling, heat, redness, and pain) and is used to treat certain forms of arthritis; skin, blood, kidney, eye, thyroid, and intestinal disorders (e.g., colitis); severe allergies; and asthma. Dexamethasone is also used to treat certain types of cancer.
E.	**Pharma Solvent**		**14760**	
52	1,4 Dioxane	123-91-1		1,4-Dioxane is used as a purifying agent in the manufacture of pharmaceuticals and is a by- product in the manufacture of polyethylene terephthalate (PET) plastic

Sr. No.	Product Name	CAS No.	Proposed Quantity (TPA)	Uses
A.	**Inorganic Iodine Derivatives**		**240**	
53	1,3 Dioxalane	646-06-0		1, 3-Dioxolane is used in polymerization process as a chain length regulator and chain transfer agent. It is used in textile industry as a swelling or as a finishing agent. It is used as a solvent for paint, varnish, paint stripper and cleaning product. It is also used as a stabilizer for halogenated solvents.
54	Dibutyl Ether	142-96-1		Solvent for Grignard syntheses. Solvent for fats, oils, organic acids, alkaloids, natural and synthetic resins. For manufacturing of pesticides
55	Monoglyme	110-71-4		Used as a solvent, especially in batteries.
56	Acetonitrile	75-05-8		Acetonitrile has many uses, including as a solvent, for spinning fibers, and in lithium batteries. It is primarily found in air from automobile exhaust and manufacturing facilities.
57	Diisopropyl Ether	108-20-3		Di-isopropyl ether can be used in a wide variety of applications. Its most common use is as a solvent as oil-based solutions dissolve in it. This makes it the ideal base for many paints, waxes, dyes and resins. It is also used as a solvent in paint thinners and stain removers.
58	N-Methyl Pyrrolidone	872-50-4		N-Methylpyrrolidone (NMP) is a solvent used in a variety of industries and applications, such as paint and coating removal, petrochemical processing, engineering plastics coatings, agricultural chemicals, electronic cleaning and industrial/domestic cleaning.

5. The PP reported that there is no violation case as per the Notification No. S.O.804 (E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act.

6. The PP reported that there is no national park, sanctuary, biosphere reserve except as Villages like Adoshi, Gohe, Chavani, Khambewadi, Tondali, Ghodivali, Jambarung, Tuksai, Karambeli in Khalapur taluka and Kurvande, Kune N.M. in Mawal taluka are listed as Eco-Sensitive Areas (ESA) in Order under section 5 of EP Act 1986 dated 3rd October 2018 issued by Ministry of Environment, Forest & Climate Change (MoEFCC). It is reported that project is not located in village identified in the Western Ghat. Nearest ESA, Adoshi village is about 1.9 Km towards SE, within 10 km radial distance from the project site. No forest land involved in the project activities. River/ water body Atkargaon River is flowing at a distance of 0.4 Km in S direction; Adoshi River in 1.1 Km in SE; Patal Ganga River in 3.5 Km in NE and Balganga River in 6.2 Km in W direction.

7. The PP reported that the Ambient air quality monitoring was carried out at 8 locations during **1st March 2021 to 31st May 2021** and the baseline data indicates the ranges of concentrations as: **PM10 (58.3-74.8 µg/m^3), PM2.5 (21.2-32.5 µg/m^3), SO_2 (10.9-16.9 µg/m^3) and NO_2 (19.5-26.9 µg/m^3).** AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be **0.48 µg/m^3, 0.26 µg/m^3 and 5.8 µg/m^3** with respect to PM, SO_2 and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Also, additional one-month Ambient air quality monitoring was carried out at 8 locations during **February 2024** and the baseline data indicates the ranges of concentrations as: **PM_{10} (56.4-75.1 µg/m^3), $PM_{2.5}$ (20.5-28.4 µg/m^3), SO_2 (8.6-17.2 µg/m^3) and NO_2 (14.8-27.5 µg/m^3).** AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be **0.69 µg/m^3, 0.25 µg/m^3, 2.64 µg/m^3 and 0.61 µg/m^3** with respect to PM_{10}, $PM_{2.5}$, SO_2 and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

8. The PP reported that the Total water requirement is 14.130 m^3/day of which fresh water requirement of 6.5 m^3/day will be met from Ground Water. CGWB NOC not required as the daily intake quantity of ground water is less than 10 KLD. Industrial Effluent of 8.630 KLD will be treated in ETP of 10 KLD. Domestic waste of 1.800 KLD will be treated in STP of 3 KLD capacity. The plant will be based on Zero Liquid discharge system.

9. The PP reported that the Power requirement for the proposed project will be 1920 kWA which will be met from Maharashtra State Electricity Board (MSEB). 2 DG set of 1000 kVA will be used as standby during power failure. Stack (12 mtr height above roof) will be provided as per CPCB norms to the proposed DG sets. 20000 Kcal/hr Electric based Thermic Fluid Heater will be installed. Additionally, 1500Kcal/hr PNG based Hot Water Generator will be installed as a standby only. Stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 10 mg/Nm^3 and 30 mg/Nm^3 for PNG based Hot water generator and electric based heater respectively. The Committee suggested that 30 m stack shall be provided to DG set as per CPCB criteria.

10. **Details of fuel: Proposed**
    PNG – 85 m^3/hr
    Diesel (stand by only) – 200 lit/hr

11. **Details of process emissions generation and its Management:**

Sr. No.	**Stack attached to**	**Height (m)**	**Top Dia (m)**	**Exit Temp (°C)**	**Exit Velocity (m/s)**	**Volumetric Flow (Nm^3/hr)**	**PM_{10}**	**SO_2**	**NO_2**
							(gm/sec)		
Scenario 1									
1.	Hot Water Generator 1500 Kcal/ hr (FO based)	30	0.8	140	8	10440.19	0.4	0.2	0.29
2.	DG set (2x1000KVA)	30	0.8	170	12	14599.7	0.04	0.001	0.8
OR Scenario 2									

3.	Thermic Fluid Heater 20000 Kcal/hr. (PNG based)	30	0.8	140	8	10440.19	0.14	0.17	0.29
4.	DG set (2x1000KVA)	30m	0.8	170	12	14599.7	0.04	0.001	0.8

Dust collector with bag filter, flue gas recirculation, NOx reduced controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 and 50 respectively for FO based and coal based boiler.
2 DG set of 1000 kVA will be required for power supply in case of power failure. The expected pollutants emitted from the DG set will be PM, SO_2, NOx and CO. There will not be any impact on surrounding area as this will be the occasional activities.

12. **Details of Solid Waste/ Hazardous Waste Generation and its Management**: The hazardous waste generated from the primary and secondary operations of ETP in the form of ETP sludge (0.258 MT/D). This sludge is isolated and dried in sludge drying beds. Dried sludge will be sent to CHWTSDF for disposal. Domestic waste 0.005 MT/D will be segregated for organics (degradable) and inorganics (non-biodegradable). The organic waste will be used for composting and inorganics will be sent to the authorized vendors

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 700 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 132 Lakhs per Annum. Industry proposes to allocate ₹ 100 Lakhs towards CER.

Activity	**Amount allocated in Rs. Lakhs**
Air Pollution Control Measures dust extraction systems/dust collector, online monitor etc.	225
Water and Wastewater Management	307
Green belt and landscaping	30
Rainwater Harvesting	8
Occupational health and safety (Provision of PPE, Medical Examination)	15
Solid and Hazardous waste Management	25
Noise Reduction Systems	10
Provision for Solar Power plant (100 kW)	40
CEMS and Environmental monitoring	40
Total	**700**
Air Pollution Control Measures dust extraction systems/dust collector, online monitor etc.	25

Water and Wastewater Management	25
Green belt and landscaping	6
Rainwater Harvesting	1
Occupational health and safety (Provision of PPE, Medical Examination)	5
Solid and Hazardous waste Management	50
Noise Reduction Systems	1
Provision for Solar Power plant (100 kW)	4
CEMS and Environmental monitoring	15
Total	**132**

14. The PP reported that Public Hearing for the proposed project has been conducted by the Maharashtra Pollution Control Board on Dt.14.07.2023 at Samuel Hall, 4th Floor, Old Mumbai Pune Highway (NH-4), Khopoli, District - Raigad (410203) Maharashtra which was presided by the Additional District Magistrate. The main issues raised during the public hearing are related to:

- Waste water management
- Employment generation
- Solid waste generation & disposal
- Impact on air pollution
- Water pollution/contamination of ground water

Issues raised	**Response/Commitment from Project Proponent**	**Action plan with time frame and budget**
Shri. Sandip Taturam Patil, Residence – Atkargaon, Taluka – Khalapur, District – Raigad: He welcomed the project and questioned about the policy of company for employment because the employment is provided but after six months, the break is given to workers.	The proposed project will require 50 skilled and 50 unskilled people. According to the rules of the Government of Maharashtra, the hundred skilled and unskilled local workers will be appointed. The skilled workers required for the project will also be from local villages. People having the required knowledge will be provided with job opportunities. The break after six months is for indirect workers. In this regard, the decision is taken keeping in mind the physical ability, behaviour and efficiency of the worker. We will not do any injustice to workers.	Being internal administrative matter - Action not required.

Issues raised	Response/Commitment from Project Proponent	Action plan with time frame and budget
Shri Chandrakant Govind Deshmukh, Residence – Adhoshi, Taluka – Khalapur, District – Raigad He welcomed the project. He hoped that the promises made in the presentation will be followed. He required an explanation about how you fix the maximum and minimum temperature.	The weather forecast is taken from the IMD station, which is a department of the Government of India. The prediction is not for every day, but for that season or the whole year. So it has to be assumed that some factors can remain maximum and minimum.	Action not required
Shri Sahaji Narhari Aughe, Residence - District Raigad Annual production is mentioned in Metric Tons. But the percentage of its disposal is not shown anywhere. Similarly, no information is given regarding its disposal. The product that is going to be produced is shown in the presentation, but the quantity of waste is not mentioned anywhere.	The project is completely environment friendly. The waste water generated in the project will be treated and reused in the project. Not a single drop of treated effluent from the project will be released outside the project area. The solid waste generated in our project will be continuously recycled. The Hazardous Solid Waste will be handed over to Mumbai Waste Management as per the directives of Maharashtra Pollution Control Board for scientific disposal of Hazardous Solid Waste from the project. In 5-6 months, the hazardous waste will be only 5-6% at most.	The solid waste generated in will be continuously recycled. The Hazardous Solid Waste will be handed over to Mumbai Waste Management Company. EC and CTO conditions will be followed. Budget for management of **Hazardous and Solid waste**: Capital Cost - Rs. 25 Lakhs; Recurring Cost – Rs. 50 Lakhs
Shri Nitin Dattatraya Dhavale, Residence – Atkargaon, Taluka – Khalapur, District – Raigad • How did environment consultant carried the survey of water pollution and air pollution? The ground water is completely contaminated by the former company. There is a lot of air pollution here. What will be the treatment of the fumes generated from the boiler in the	• Anacon Laboratories is a QCI NABET Accredited Environmental Anacon Anacon Consultancy div is accredited by MoEFCC/NABET for 5(f) sector Cat A as an EIA consulting organization and Anacon laboratory is approved as per EPA act by MoEFCC GOI and NABL accredited. Thus, it's a competent organization. During the survey, ground and surface water samples were taken. • Water samples are scientifically collected. Similarly, the analysis of the water sample has also been done scientifically. The level of pollution	Budget for control of **water pollution:** Capital Cost –Rs. 325 Lakhs; Recurring – Rs. 29 Lakhs. Budget for control of **air pollution:** Capital Cost –Rs. 225 Lakhs; Recurring – Rs. 25 Lakhs.

Issues raised	Response/Commitment from Project Proponent	Action plan with time frame and budget
production process in the company? • He suggested to the Maharashtra Pollution Control Board that they should conduct an inspection there. We have Percolation/Pazar Lake at Mandad Atkargaon beside Adoshi Village. 7-8 villages are dependent on this lake. Ground water is not potable. There is a high incidence of diseases like urinary stones. So, we can give some assurance that the underground water in the area will not be damaged due to this company in the future. • We cannot take underground water for bathing. Hence, we have brought water from one and half km. distance. If this water is also going to be bad from where should we get the water. • He objected that if the water gets contaminated in future, who will take responsibility for it? At the end he welcomed the project.	found here is as per the standards passed by the Central Pollution Control Board and it is mentioned in the report. • The level of air pollution is also within the prescribed standards. The sample testing machines are ISO approved and calibrated. • Maharashtra Pollution Control Board has imposed a condition of ZLD – Zero Liquid Discharge to this project. However, companies will commission ETP, Reverse Osmosis (RO), and Multi Effective Evaporator (MEE). Industrial waste water from the project will be treated and reused in the project. The sewage generation is also low 1.5 KLD. So, it can be processed only in the company area. • The complaint about the contamination of underground water should be made in written form to MPCB. MPCB will initiate further action on it. • Now due to the new policy, ZLD will be followed, not a single drop of waste water will be released outside the project. The quantity of water that is pumped for production will also be reduced. For that, ZLD has been made mandatory.	

15. The PP proposed to set up an Environment Management Cell (EMC) by engaging Corporate HSE- Head Environment- Manager Environment- Executive /officers- staff and workmen for the functioning of EMC.

16. Industry will develop greenbelt in an area of 34.55% i.e., 8839 m^2 out of total area of the project.

17. The PP submitted the Disaster, Onsite, and Offsite Emergency Plans in the EIA report.

18. The estimated project cost is Rs. 50 Crores. Total employment will be 50 person as direct & 50 persons indirect.

19. The Proposal was considered in the 73rd EAC Meeting held on 16th January, 2024 wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP vide letter 24.7.2024 which is as follows:

S. No.	Queries Raised by EAC	Reply by PP
1	Steel fabrication unit exist in the existing premises and does not attract EIA Notification, 2006. It was suggested to submit certified compliance report from SPCB.	They would like to inform you that our core business is Steel and Iron fabrication, so we have applied to MPCB for Consent to Establish on 09/05/2018 and we have received "WHITE COLOR" Consent from MPCB. But then due to some obstacles, the work of this shed construction was started late. The plinth level work was completed by 2018-19, but the ongoing shed work was stopped due to the subsequent Covid19 Pandemic. There are no activities for MS fabrication and is also certified by RO MPCB, Raigarh in his site visit report Dt. 10.07.2024 (Copy of site visit report enclosed). Due to the prolonged existence of the Covid19, it had a financial impact on our business. So, we have decided to change our business. As a result of this, after Covid19 Pandemic, we have changed our core business and opted for "API and API INTERMEDIATES" Manufacturing. They may take up MS fabrication in the constructed shed after obtaining EC. They will apply to MPCB after obtaining EC and CTO application will be for combined activities i.e. API and MS Fabrication.

2	The Committee noted that the baseline data was collected during the COVID period and it was felt that the collected data will not reflect the normal scenario. Therefore, it is advised to conduct the fresh baseline data for one month.	As desired the additional one-month baseline data for Ambient Air Quality, Noise Quality, Ground Water & Surface water and Soil Quality was collected during 1st February, 2024 to 29th February, 2024 An environmental baseline monitoring was conducted as a part of EIA studies for proposed API & API Intermediates manufacturing unit during **Pre-Monsoon season (1st March 2021 – 31st May 2021)** as per Terms of Reference vide F. No. IA-J-11011/440/2021-IA-II(I) on dated 2nd November, 2021 and additional one month Baseline Monitoring has been conducted during the month of **February 2024** as per 73rd Meeting of EAC-3, Agenda Sr. No. 6; dtd. 16.01.2024

SUMMARY OF SITE-SPECIFIC PREDOMINANT WIND PATTERN

Predominant Wind Direction	**1st Mar, 2021 – 31st May, 2021**	**1st Feb, 2024 – 29th Feb, 2024**
First Predominant Wind Direction	WNW (22.37%)	NE (13.22%)
Second Predominant Wind Direction	NW (16.89%)	NW (12.64%)
Calm conditions (%)	0.63	0.57
Avg. Wind Speed (m/s)	3.09	2.94

SUMMARY OF AMBIENT AIR QUALITY RESULTS (Study Period – 1st March 2021 – 31st May 2021

Sr. No.	**Location**		**PM_{10}**	**$^{PM}2.5$**	**SO_2**	**NO_2**	**CO**	**Ozone**	**NH_3**
			µg/m³	**µg/m³**	**µg/m³**	**µg/m³**	**mg/m³**	**µg/m³**	**µg/m³**
1	Project Site	Min	49.7	17.2	9.7	18.3	0.32	5.4	6.1
		Max	66.9	28.6	16.3	28	0.462	8.6	9.2
		Avg	60.2	21.2	12.9	22.8	0.377	6.7	7.9
		98th	66.5	26.3	15.9	27.9	0.457	8.5	9.2
2	Honad	Min	54.2	21.1	8.7	15.5	0.256	4.9	6.3
		Max	74	28.5	14.4	22.4	0.398	10.4	10.6
		Avg	62.4	24.7	11.5	19.5	0.332	7.8	8.5
		98th	72.9	28.3	14.1	22.4	0.392	10.3	10.3
3	Dheku	Min	59	20.6	9.3	20	0.278	4.2	6
		Max	71.4	33.1	13.1	26.6	0.598	9.7	9.5
		Avg	66.5	25.3	10.9	23.6	0.396	7.1	7.4
		98th	71.4	32.5	12.7	26.5	0.591	9.6	9.4
4	Ninave	Min	53.9	20.4	12.5	21.4	0.376	5.1	6.3
		Max	64.8	26.7	16.3	26.8	0.48	7.5	9.3

		Avg	59.1	23.2	14.3	24.1	0.443	6.4	7.7
		98th	64.4	26.5	16.3	26.6	0.478	7.3	9.1
5	Adoshi	Min	58.6	21.4	12.6	21.9	0.433	6.6	6.8
		Max	71.4	30.4	18.1	28.9	0.537	9.5	10.7
		Avg	65.4	26.1	15.6	25.7	0.499	8.3	9.1
		98th	71.3	29.9	18.1	28.9	0.534	9.4	10.5
6	Kumbhachiwadi	Min	52.9	19.4	11.7	18.2	0.388	6.4	6.7
		Max	64.7	26.9	16.2	24	0.456	8.8	9.6
		Avg	58.3	22.3	13.7	21.3	0.428	7.6	8.3
		98th	64	26.4	15.8	23.9	0.455	8.8	9.6
7	Sangade	Min	57.8	23.7	10.2	17.7	0.359	7.3	5.9
		Max	73.6	31.0	14.4	24.8	0.426	10.5	11.1
		Avg	64.3	27.6	12.2	20.8	0.395	8.9	8.6
		98th	72.1	30.6	14.3	24.4	0.422	10.4	10.8
8	Khopoli	Min	67.3	25.8	12.9	23.7	0.474	7.2	7.9
		Max	81.1	37.3	20.2	29.4	0.618	11.9	12.2
		Avg	74.8	32.5	16.9	26.9	0.544	9.5	9.8
		98th	80.3	37	19.7	29.4	0.607	11.7	12.1
CPCB Standards 6			**100 (24hr)**	**60 (24hr)**	**80 (24hr)**	**80 (24hr)**	**2 (8hr)**	**100 (8hr)**	**400 (24hr)**

SUMMARY OF AMBIENT AIR QUALITY RESULTS (Study Period – 1st Feb 2024 – 29th Feb 2024)

Sr. No.	Location		PM_{10} µg/m³	$^{PM}2.5$ µg/m³	SO_2 µg/m³	NO_2 µg/m³	CO mg/m³	Ozone µg/m³	NH_3 µg/m³
1	Project Site	Min	60.7	22.6	12.3	17.2	0.322	5.9	6.5
		Max	76.1	28.3	15.7	24.2	0.467	7.7	8.1
		Avg	67.4	25.6	13.7	20.8	0.388	6.8	7.3
		98th	75.4	28.2	15.5	24.1	0.462	7.7	8.1
2	Honad	Min	58.5	22.4	10.5	16.4	0.321	5.7	6.1
		Max	67.2	27.2	13.6	20.7	0.402	7.1	9.1
		Avg	62.3	24.3	12.5	18.6	0.356	6.4	7.6
		98th	66.8	27.1	13.6	20.6	0.399	7.1	9.0
3	Dheku	Min	58.2	25.1	14.4	23.6	0.429	6.9	7.6
		Max	74.5	30.5	18.5	30.3	0.537	9.5	9.5
		Avg	65.2	27.2	16.1	26.4	0.475	8.0	8.5
		98th	74.2	30.4	18.3	30.0	0.533	9.4	9.4
4	Ninave	Min	51.9	17.6	8.6	13.3	0.282	5.8	6.8
		Max	65.5	26.1	12.4	18.8	0.391	8.8	9.4
		Avg	58.1	21.9	10.2	16.2	0.324	7.5	8.1

		98th	65.2	26.0	12.3	18.7	0.385	8.8	9.4
5	Adoshi	Min	52.8	19.7	7.5	13.5	0.256	4.7	5.5
		Max	66.5	27.1	10.5	17.6	0.306	7.2	7.8
		Avg	59.2	22.8	8.6	15.2	0.277	6.1	6.7
		98th	66.2	26.8	10.4	17.4	0.305	7.2	7.8
6	Kumbhachiwadi	Min	50.3	17.7	8.1	12.2	0.219	5.2	6.1
		Max	64.4	24.4	11.4	17.2	0.408	7.5	8.5
		Avg	56.4	20.5	9.3	14.8	0.292	6.5	7.3
		98th	64.1	24.1	11.3	17.1	0.397	7.5	8.5
7	Sangade	Min	59.2	22.5	11.5	15.7	0.261	6.2	7.1
		Max	74.6	31.1	14.7	20.2	0.486	9.1	9.7
		Avg	66.3	26.1	12.8	17.6	0.347	7.8	8.4
		98th	74.3	30.8	14.5	20.0	0.471	9.0	9.6
8	Khopoli	Min	68.5	24.7	15.5	24.4	0.448	7.3	8.2
		Max	84.4	35.1	19.6	31.6	0.561	9.8	10.5
		Avg	75.1	28.4	17.2	27.5	0.496	8.4	9.5
		98th	84.1	34.6	19.4	31.3	0.557	9.7	10.5
7	**CPCB Standards**		**100 (24hr)**	**60 (24hr)**	**80 (24hr)**	**80 (24hr)**	**2 (8hr)**	**100 (8hr)**	**400 (24hr)**

The overall concentration of the main criteria pollutants then the lowest concentration concentration of the criteria pollutants during the study period are shown in the table below

Sr. No.	**Name of Pollutant**	**Range (Pre-Monsoon, 2021)**		**Range (February, 2024)**	
		Min	**Max**	**Min**	**Max**
1	PM_{10} (µg/m^3)	49.7	81.1	50.3	84.4
2	$PM_{2.5}$ (µg/m^3)	17.2	37.3	17.6	35.1
3	SO_2 (µg/m^3)	8.7	20.2	7.5	19.6
4	NO_2 (µg/m^3)	15.5	29.4	12.2	31.6

Heavy metals were estimated from PM_{10} to know the concentration levels in particulate matter and observed that all concentrations were found to be within the standard limit. Overall concentrations of heavy metals were found to be within the prescribed limits.

NOISE LEVELS IN THE STUDY AREA (Study Period – 1st Feb 2024 – 29th Feb 2024)

Sr. No.	Monitoring Locations	Equivalent Noise Level	
		Leq_{Day}	Leq_{Night}
Residential Area			
1	Kumbhachiwadi	52.3	39.7
2	Mandad Atkargaon	50.6	38.4
CPCB Standards dB(A)		55.0	45.0
Commercial Area			
3	Dheku	54.6	47.3
4	Tembewadi	51.4	45.2
CPCB Standards dB(A)		65.0	55.0
Silence Zone			
5	Ninave	45.2	35.5
6	Adoshi	46.9	36.1
CPCB Standards dB(A)		50.0	40.0
Industrial Area			
7	Project Site	58.3	46.7
8	Honad	60.5	47.8
CPCB Standards dB(A)		75.0	70.0

Sr. No.	Monitoring Locations	Equivalent Noise Level	
		Leq_{Day}	Leq_{Night}
Residential Area			
1	Kumbhachiwadi	52.5	40.7
2	Mandad Atkargaon	54.1	42.4

CPCB Standards dB(A)			55.0	45.0
Commercial Area				
3	Dheku		57.8	49.2
4	Tembewadi		56.3	47.6
CPCB Standards dB(A)			65.0	55.0
Silence Zone				
5	Ninave		48.6	38.5
6	Adoshi		47.4	37.8
CPCB Standards dB(A)			50.0	40.0
Industrial Area				
7	Project Site		61.7	51.2
8	Honad		62.1	48.5
CPCB Standards dB(A)			75.0	70.0

Surface Water Quality

Parameters	**Unit**	**Baseline Monitoring Period (1st March, 2021 – 31st May, 2021)**	**Additional 1 Month Baseline Monitoring (1st Feb, 2024 – 29th Feb, 2024)**	**IS 2296:1992; Class C (Drinking water source after conventional treatment and disinfection)**
		Range	**Range**	
pH	-	6.76 – 8.04	6.76 – 8.16	No relaxation (6.0 to 9.0)
EC	µs/cm	427 – 594	507 – 596	-
TDS	mg/l	299 – 365	300 – 351	1500
Total hardness	mg/l	156.61 – 229.88	169.55 – 200.61	-
DO	mg/l	5.9 – 6.5	5.7 – 6.3	4.0

BOD	mg/l	4.12 – 7.65	3.15 – 5.12	3.0
COD	mg/l	12.46 – 16.32	18.34 – 36.27	-
Chloride	mg/l	19.51 – 32.58	21.64 – 31.46	600
Sulphate	mg/l	12.46 – 44.73	21.91 – 34.81	400
Nitrate	mg/l	2.63 – 4.25	2.57 – 3.82	50
Fluoride	mg/l	0.13 – 0.19	0.16 – 1.18	1.5
Iron	mg/I	0.09 – 0.19	0.07 – 0.21	0.5
Cadmium	mg/l	BDL (DL - 0.001)	BDL (DL - 0.001)	0.01
Arsenic	mg/l	BDL (DL - 0.01)	BDL (DL - 0.01)	0.2
Zinc	mg/l	BDL (DL - 0.01)	BDL (DL - 0.01)	15
Lead	mg/l	BDL (DL - 0.001)	BDL (DL - 0.001)	0.1
Chromium	mg/l	BDL (DL - 0.03)	BDL (DL - 0.03)	0.05
[1]Total Coliform	MPN/100 ml	94 – 345	46 – 109	5,000

Groundwater quality

Parameters	**Unit**	**Baseline Monitoring Period (1st March, 2021 – 31st May, 2021)**	**Additional 1 Month Baseline Monitoring (1st Feb, 2024 – 29th Feb, 2024)**	**Permissible Limit**
		Range	**Range**	
pH	-	6.96 – 7.71	6.94 – 7.61	No relaxation (6.5 to 8.5)
EC	µs/cm	493 – 752	540 – 679	-
TDS	mg/l	345 – 436	339 – 395	2000
Total hardness	mg/l	211.8 – 311.7	196.23 – 232.63	600

Chloride	mg/l	18.94 – 55.00	17.52 – 37.32	1000
Sulphate	mg/l	18.29 – 54.32	17.64 – 46.29	400
Nitrate	mg/l	BDL (DL - 2)	BDL (DL - 2)	No relaxation (45)
Fluoride	mg/l	0.19 – 0.33	0.16 – 0.31	1.5
Iron	mg/I	0.08 – 0.25	0.14 – 0.24	No relaxation (1.0)
Cadmium	mg/l	BDL (DL - 0.001)	BDL (DL - 0.001)	No relaxation (0.003)
Arsenic	mg/l	BDL (DL - 0.01)	BDL (DL - 0.01)	No relaxation (0.01)
Zinc	mg/l	BDL (DL - 0.01)	BDL (DL - 0.01)	15
Lead	mg/l	BDL (DL - 0.001)	BDL (DL - 0.001)	No relaxation (0.01)
Chromium	mg/l	BDL (DL - 0.03)	BDL (DL - 0.03)	No relaxation (0.05)

SOIL ENVIRONMENT

Physico-Chemical Characteristics			
Parameters	**Unit**	**Baseline Monitoring Period (1st March, 2021 – 31st May, 2021)**	**Additional 1 Month Baseline Monitoring (1st Feb, 2024 – 29th Feb, 2024)**
pH	-	6.71 – 7.16	6.61 – 6.87
EC	µs/cm	259.7 – 294.3	172.89 – 221.98
Infiltration Rate	mm/hr	18.52 – 21.64	8.92 – 24.18
Bulk Density	g/cm3	1.475 – 1.714	1.42 – 1.61
Water Holding Capacity	%	21.46 – 23.19	18.76 – 45.38
Organic Carbon	%	0.10 – 0.21	1.13 – 1.84

Macro Nutrients

Parameters	Unit	Baseline Monitoring Period (1st March, 2021 – 31st May, 2021)	Additional 1 Month Baseline Monitoring (1st Feb, 2024 – 29th Feb, 2024)
Nitrogen	Kg/hec	248 – 690	199.20 – 364.45
Phosphorus	Kg/hec	58.4 – 69.8	37.65 – 65.66
Potassium	Kg/hec	80 – 131	98.59 – 193.80

Heavy Metals Content in the Soil

Micro Nutrients			
Parameters	**Unit**	**Baseline Monitoring Period (1st March, 2021 – 31st May, 2021)**	**Additional 1 Month Baseline Monitoring (1st Feb, 2024 – 29th Feb, 2024)**
Iron	mg/kg	1.22 – 2.42	1.201 – 2.475
Manganese	mg/kg	1.22 – 3.47	1.356 – 4.318
Zinc	mg/kg	0.24 – 0.58	0.280 – 0.497
Copper	mg/kg	0.42 – 0.82	0.775 – 1.272
Nickel	mg/kg	Absent	Absent
Cadmium	mg/kg	Absent	Absent
Lead	mg/kg	Absent	Absent

Interpretation

Parameters	Unit	Results	Fertility Status
pH	-	6.61 – 7.16	Neutral
Organic Carbon	%	0.10 – 1.84	Very Less to more than sufficient
Nitrogen	Kg/hec	199.20 – 690	Better to sufficient
Phosphorus	Kg/hec	37.65 – 69.8	Medium to sufficient
Potassium	Kg/hec	80 – 193.80	Very Less to Medium
Sodium Absorption Ratio	-	0.33 – 6.61	Excellent (Little or No Hazard) to Doubtful (unsatisfactory for most of the crops)

		Therefore, based on the analysis results of soil samples during the study period of March, 2021 to May, 2021 and additional one month baseline study of February, 2024, the soil quality was found to be fertile. Heavy metals were also found within norms. Nutrients are deficient and crop yields will likely be limited. Nutrient content is adequate and probably will not limit crop growth.

3	Revised water balance considering monsoon and non-monsoon. PP shall also provide source of water supply.	Ground Water. CGWB NOC not required as the daily intake quantity of ground water is less than 10 KLD (as per SOP 9.1 Page no 13 of 71). Daily fresh water requirement will be 6.5 KLD out of this 2 KLD water will be used for domestic purpose and 4.5 KLD water will be used for industrial activity. Total Yearly water requirement for industrial activity will be 4.5 KLD * 330 days = 1485 KLY. The annual rainfall based on the IMD data recorded was as 2373 mm as per climatological data for IMD, Mumbai (Santa Cruz) (1981 – 2010). Further, the management had decided to implement a 2 x 750 KL rain water collection tank which will be able to store sufficient quantity rain water during rainy days which would be continuously used for industrial purpose during the rainy days and after the rainy days. The objective of this is to utilize rain water throughout the year for industrial purpose. Quantity of water storage tank with storage cap vs ground water for the period excluding evaporation losses The revised water balance is submitted

Particular	**Day 1 water requirement**	**Fresh water requirement**	**Recycle water requirement**
Domestic	2.000	2.000	0.000
Industrial Process	8.130	0.500	7.630
Cooling Tower & Boiler	2.500	2.500	0.000
Green belt	1.500	1.500	0.000
Total	14.130	6.500	7.630

Waste Water generation (KLD)

Particular	**Consumption/Requirement**	**Loss**	**Effluent**
Domestic	2.000	0.200	1.800
Industrial Process	8.130	0	8.130
Cooling Tower & Boiler	2.500	2.0	0.500
Green belt	1.500	1.5 Consumption	0
Industrial Effluent			8.630
Domestic Waste water			1.800
Total	**14.130**	**3.700**	**10.43**

DETAILS OF RAINWATER HARVESTING

S. No.	Particulars	Area (Sq.M.)	Rain fall (m)	Runoff Coefficient*	Quantum of Run off available (Cum/Year)
1	Roof Top of building /Shed	6191	2.373	0.85	12487.55
2	Road/Paved area	5228	2.373	0.65	8063.92
3	Open Land	5322	2.373	0.20	2525.82
4	Green Belt	8839	2.373	0.15	3146.24
	Total (Sq. M.)	**25580**		**Total runoff (cum/y)**	**26223.53**

From the above it is observed that total recharge potential of Rain Water is 26,223.53 Cum/Year of rainfall run-off can be recharged annually within the premises.
If we consider 0.20 meter rain in case of heavier rainfall, then total 2210.16 CUM water required to be store as per below table

S. No.	Particulars	Area (Sq. M.)	Rain fall (m)	Runoff Coefficient*	Quantum of Run off available (Cum/Year)
1	Roof Top of building/Shed/	6191	0.200	0.85	1052.47
2	Road/Paved area	5228	0.200	0.65	679.64
3	Open Land	5322	0.200	0.20	212.88
4	Green Belt	8839	0.200	0.15	265.17
	Total (Sq.M.)	**25580**		**Total runoff (cum/y)**	**2210.16**

Recommendation:
Rain water collection tank is proposed to use rain water in industrial process.

Sr. No.	Type	Size	Nos.	Capacity of Rainwater (m^3)
1.	Collection Tank	12 m (length) x 15 m (width) x 4.2 m (depth)	2	750

4	Revised process flow sheet of the wastewater treatment.	Revised process flow sheet of the wastewater treatment is submitted. Domestic wastewater 1.8 KLD will be collected and treated. Treated water will be used for gardening within plant premises. It is proposed to install 3 KLD STP (MBBR technology). Treated water will be used for gardening within plant. Details of STP:- Capacity of STP: 3 KLD Technology of STP: MBBR Design Basis The Sewage Treatment plant has been designed on the basis of following input parameters. **ANTICIPATED INLET OUTLET SEWAGE QUALITY**

Inlet Parameters (Flow : 3 KLD)		**Out let Parameters (Flow : 3 KLD)**	
pH	: 7 to 8	pH	: 6.5-8.5
BOD	: 200-250 mg/lit	BOD	: < 10 mg/lit
COD	: 350 - 400 mg/lit	COD	: < 250 mg/lit
TSS	: 200 - 300 mg/lit	TSS	: < 100 mg/lit
Oil & Grease	: 40-50 mg/lit	Oil & Grease	: < 10 mg/lit

Wastewater Transport:
The domestic wastewater, which will be generated from various sources, is collected at sources and routed towards the treatment plant. All the sewage is allowed to flow by gravity through open/close drains passing through coarse screen.

Screen Chamber:
The incoming raw sewage contains inert particles. The primary screen serves to prevent particles with size larger than 10mm of entering into the treatment system. The particles trapped on the screen shall be disposed as solids waste. Here domestic sewage to be treated.

Oil & Grease Trap:
The wastewater from screen will be passes to oil & grease trap. The sewage inevitably contains free oil & fat particles. This free oil and grease interferes with the biological treatment reducing the efficiency of biological treatment. Therefore, it is necessary to remove oil and grease.

Collection cum Equalization Tank:
The sewage from the screen chamber and from Oil & Grease trap underflows to the collection cum equalization tank. The untreated sewage is retained in this

<table>
<tr>
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<td>tank with sufficient capacity to attain a retention time of 6 - 8 hrs. (Or depending on the peak flow; this tank acts as a balancing tank where the hydraulic & the organic loadings to the subsequent units can be controlled). The collection cum equalization tank is fitted with air piping grid on the floor of the tank, air blower helps to avoid any formation of anaerobic zones in the tank, which can lead to foul smell.

Extended Aeration Tank (MBBR):
Lamella Clarifier:
After biological treatment of wastewater it is subjected to a lamella clarifier where it flows by gravity to an upward flow secondary settling chamber. A baffle guides the water entering the settler downwards. Any biological solids suspended in the effluent following aerobic degradation are removed via gravimetric settlement. To economize this process, settler media is used which provides a large surface area for the suspended solids to settle down on its surface and the same are guided towards the bottom sludge accumulating hopper, from this zone the sludge is withdrawn & allowed to pass to the Sludge Dying Beds containing less than 20% moisture. The supernatant from the settler is let out of the system from the outlet launder provided at the top of the settler.
Treated Water Tank:
The treated water from Lamella clarifier will be collected in treated water tank. The water from treated water tank is fed to the pressure sand filters & Activated carbon Filter for removal of suspended matter & turbidity.
Disinfection System:
The water after removal suspended particles, odor and organic matter is subjected for disinfection. By using Hypo-chloride solution containing 10% strength. The hypo solution will be stored in 3 lit tank. Treated water will be used for gardening within plant.</td>
</tr>
<tr>
<td>5</td>
<td>Action plan for the Greenbelt development plan all around the periphery (in all the four Directions).</td>
<td>M/s. Rama Enterprises is having 25580 Sq.M. (2.558 Ha.) of land in possession. Total greenbelt area is 0.8839 Ha (34.55 %). Thus, total plantation 2210 nos. will be developed by considering 2500 trees/Ha

Proposed Plantation Breakup
<table>
<tr><th>YEAR</th><th>No. of Sapling (@ 2500 Sapling/Ha.)</th><th>Remarks</th></tr>
<tr><td>1st Year</td><td>2210 in 0.8839 Ha.
(i.e. 34.55% of total plot area)</td><td>This tree plantation program will be followed during proposed project and commensurate to capital investments within a span of 1 year.</td></tr>
</table>
Budgetary Allocation For Proposed Greenbelt Development Within Plant Premises
<table>
<tr><th>PLANTATION</th><th>Remarks</th></tr>
</table>
</td>
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		Cost of planting each Tree - Rs. 250/- (Minimum Height 4 ft.) (Breakup of cost Rs.120/- cost of tree + Rs. 40/- Pit Formation + Rs. 40/- Form Yard Manure + Rs. 50/- Bamboo and sand materials)	This tree plantation program will be followed during proposed project and commensurate to capital investments within a span of 1 year.
		Trees 2210	**552500**
		Amount (In Rs.) 552500	

6	During presentation, PP informed that coal and FO will be used as fuel in the boiler. In order to predict the Air Pollution Quality as well as the selection of adequate Air Pollution Control Device, it suggested that the PP shall freeze the present fuel Coal and FO being used in the Boiler.	As the provision of PNG gas pipeline is now available in the area, management has decided to use PNG gas as fuel in the boiler. Thus, in order to predict the suitable air pollution control device based on Air pollution quality, we have revised the Ambient Air Quality modeling considering PNG as fuel.

Sl. No.	**Stack attached to**	**Ht. (m)**	**Dia. (m)**	**Temp (K)**	**Velocity (m/s)**	**Volumetric Flow Nm^3/hr**	**PM gm/sec**	**NO_2 gm/sec**	**CO gm/sec**
	Proposed								
1	Hot Water Generator 1500 Kcal/ hr (PNG based)	30	0.80	410	8	10447.39	0.03	0.06	0.03
2	Thermic Fluid Heater 20000 Kcal/hr, (Electric)	30	0.80	435	8	9846.97	0.08	0.00	0.00
3	DG SET - (1000 kVA x 2 Nos.)	30	0.15	453	16.5	685.63	0.014	0.14	0.03

PREDICTED INCREMENTAL GROUND LEVEL CONCENTRATIONS

Pollutant	**Concentration due to proposed activities ($\mu g/m^3$)**	**Distance (m)**	**Direction**
Particulate Matter (PM_{10})	0.69	200	SE

		Particulate Matter ($PM_{2.5}$)	0.25		
		NO_2	2.64		
		CO (mg/m^3)	0.61		

For the short-term simulations for point emission sources, the concentrations were estimated around 441 receptors to obtain an optimum description of variations in concentrations over the site in 10 km radius covering 16 d[27]irections

RESULTANT GLC's (BASELINE + INCREMENTAL)

Pollutant	**Baseline Concentration at Project Site ($\mu g/m^3$)**	**Incremental Concentration ($\mu g/m^3$)**	**Resultant Concentration ($\mu g/m^3$)**	**NAAQ Standards ($\mu g/m^3$)**
PM_{10}	76.1	0.69	76.79	100
$^{PM}2.5$	28.3	0.25	28.55	60
NO_2	24.2	2.64	26.84	80
CO	467	0.61	467.61	2000

Details of Noise Pollution Control System

1	DG SET - (1000 kVA x 2 Nos.)	Acoustic Enclosure

7	Revised carbon footprint study along with mitigation measures. Solar plan (100 KW) to be considered.	

Particulate	tCO_2/Year
GHG EMISSION DUE TO PROJECT ACTIVITY	
Import of Electricity from Grid – about 15206 MWh/Year) [EF=0.8 tCO_2/MWh]	12165
Due to Liquefied Natural Gas – About 7921 MMBTU/Annum Natural Gas, higher heating value) [EF=53.06 Kg CO_2/MMBTU]	420
Due to Transportation – 99825 Ltr/Annum Diesel will be used transportation activities such as Raw material, Finished products and Employee vehicles for 330 days. [EF for diesel 2.68 kg/ltr]	268
Total GHG Emission =	12853
GHG EMISSION AVOIDANCE/OFFSET	
GHG Reduction due to use of Non-conventional Energy - Proposed – 100 kW i.e., 165 MW/Annum @ 500 kVA / day [EF=0.8 tCO_2/MWh]	132
GHG sequestration due to greenbelt plantation [Weighted carbon per tree ($W_{carbon\text{-}dioxide}$ = 3.67) we have considered 250 kg of CO_2 offset per Tree]	552
Total (proposed reduction/avoidance) =	684
Net GHG Emission	12169
1 Net Reduction	5.32%

8	Additional water sampling and analysis to be carried out in order to check/confirm contamination happened in and around the project site.	Water sampling has been done in February 2024 to check/confirm the contamination in and around the project site.

9	Emergency response plan to handle chemical spills and leakages.	**Emergency response plan to handle chemical spills and leakages.** • Storage areas will be adequately separated from buildings process areas and flammable materials. • All pressure storage and equipment will be equipped with safety valves along with audio-visual alarms and controls. • The openings of safety valves of hazardous materials will be connected to buffer vessels/dump tanks. • For fire protection, fire hydrant and fire extinguishers will be provided. • Safety showers will install for all corrosive materials. • Portable Fire Extinguishers will be provided at require locations. • Flammable Raw Materials will be kept in separate storage area. • All storage tanks will inspected periodically. • All Machineries and tools will be inspected periodically. • Spillage of materials will be strictly controlled. • Personal Protective Equipment (PPE) will be provided. Also trainings will be provided to workmen on Safety and related issues regularly. • Surrounding population should be made aware of the safety precautions to be taken in the event of any mishap within the plant. This can effectively be done by conducting the safety training programs. • Signboard including phone numbers, no smoking signs and type of emergencies should be installed at various locations. • Safety escape routes should be provided at strategic locations and should be easily accessible • Plant has many safety relevant components inbuilt into process design which includes standards, codes, pipeline colour code, trips, alarms interlocks etc. • Floor drains should have stock spill socks, pillows, pads, and/or enough bulk absorbent to contain the spilled material away from the drain. • **32** Spill kits must be located strategically near work areas so that they are easily accessible in an emergency. **Sl. No.** / **Fire Fighting Equipment** / **Numbers Available** 1 / Mobile water monitor / 1 No 2 / Fire Extinguisher / 50 Nos. 3 / Fire water pump / 1 No 4 / Single headed hydrants / 1 No 5 / Fixed water monitor / 1 No 6 / Mobile foam cum water monitor / 1 No Following is the list of location wise Fire Extinguishers to be installed at Rama Enterprises

FIRE EXTINGUISHER NO.	LOCATION	TYPE OF EXTINGUISHER	CAPACITY	UNIT
01.	TRANSFORMER	CO_2	04.500KG	02
02.	GENERATOR	CO_2	04.500KG	02
03.	POWER MAIN PANEL BOARD	ABC	10.000KG	02
04.	POWER PANEL BOARD BOILER	ABC	05.000KG	01
05.	POWER PANEL BOARD BOILER	CO_2	04.500KG	01
06.	NEAR EACH CENTRIFUGE	ABC	05.000KG	01
07.	NEAR EACH CENTRIFUGE	M.FOAM	50.000LTR	02
08.	NEAR STAIR CASE	ABC	05.000KG	02
09.	NEAR HOIST	ABC	05.000KG	02
10.	NEAR EACH GLASS LINE REACTOR	M.FOAM	50.000LTR	01
11.	NEAR EACH SS REACTOR	M.FOAM	50.000LTR	01
12.	NEAR POWER PANEL BOARD	DCP	10.000KG	01
13.	NEAR POWER PANEL BOARD	CO_2	04.500KG	01
14.	NEAR RAW MATERIAL STORAGE	DCP	10.000KG	02
15.	Q.C LAB	ABC	05.000KG	02
16.	NEAR HOIST	ABC	05.000KG	01
17.	NEAR COOLING TOWER	ABC	05.000KG	01
18.	NEAR GLASS LINE REACTOR RECEIVER	ABC	05.000KG	02
19.	NEAR GLASS LINE REACTOR RECEIVER	M.FOAM	50.000KG	01

		Safety Training and Rehearsal Familiarizing key personnel involved in the plan with their equipment, the overall plans and their roles & thus they give experience and build confidence in the team members. Familiarizing professionals like ERT members, medical personnel with special tactics and hazards, and enabling them to test their part of the plan & to generate requirements of specific equipment's. Ensuring efficacy of emergency response mechanisms. Familiarization to operational personnel on operation control and mitigation measures. Reviewing the total plan, including communications and logistics, so that updating, modifying and training activities can be improved. To check effectiveness of the communications system, including the alternative arrangements in cases of failure, the speed of mobilization of the Emergency Response Teams, search, rescue and treatment of casualties, emergency isolation and shut down. Emergency response plan will be tested once in a six months. Emergency Drills are important for all personnel likely to be involved in an incident. After each Emergency Drill, any identified shortcomings/ gaps will be highlighted and action plan will be developed to address the gaps. The plan shall be revised at least once in two years. Emergency response training will be given to ERT members and all employees. Training like use of firefighting appliances, self-contained breathing apparatus & protective clothing, administering first-aid and resuscitating casualties will be given to selected group of employees to perform better with confidence in any major emergency.

20. **Deliberations by the EAC**

During deliberations, EAC discussed the following issues:

- Regarding issues raised during public hearing regarding details of ground water contamination in the surrounding area, PP informed the following :

During last meeting as ref. 2, the same issue was raised and also discussed. They would like to inform you that, the waste water contamination issue was due to Bhushan Steel Ltd. around 2016-17 which got escalated in public domain and media. Hence, during public hearing same issue was raised by locals and replied by Rama Enterprises satisfactorily. Now Bhushan Steel is taken over by Tata Steel and operating smoothly. Tata Steel plant is located at 3.6 Km aerial distance in NE direction from Rama Enterprises site. Now there is no ground water contamination issue. Copy of PH Minutes duly signed by Govt. officials is submitted.

In addition, Rama Enterprises is complying ZLD norms. Thus, ground water contamination issue is not applicable to Rama Enterprises. PP informed that as desired by EAC- 3, latest water quality monitoring (8 locations) of ground and surface water samples are submitted. The Ground water quality monitored in the study area was analyzed as per IS10500:2012 and the water quality of the samples is observed within prescribed limits. PP informed that water quality analysis report for ground water does not indicate contamination in the area.

- PP submitted the treatment of metals in effluents to avoid metal contamination
- PP submitted the revival request through CGWA NOCAP on dated 18.4.2024.
- PP submitted the revised STP outlet characteristics.
- PP submitted the revised EMP cost including 100 KW Solar panel.
- PP submitted the revised water balance along with the revised diagram.

Activity	**Amount allocated in Rs. Lakhs**
Air Pollution Control Measures dust extraction systems/dust collector, online monitor etc.	225
Water and Wastewater Management ETP with MEE	307
Green belt and landscaping	30
Rainwater Harvesting	8
Occupational health and safety (Provision of PPE, Medical Examination)	15
Solid and Hazardous waste Management	25
Noise Reduction Systems	10
Provision for Solar Power plant (100 kW)	40
CEMS and Environmental monitoring	40
Total	**700**
Air Pollution Control Measures dust extraction systems/dust collector, online monitor etc.	25
Water and Wastewater Management ETP with MEE	25
Green belt and landscaping	6
Rainwater Harvesting	1
Occupational health and safety (Provision of PPE, Medical Examination)	5
Solid and Hazardous waste Management	50
Noise Reduction Systems	1

Provision for Solar Power plant (100 kW)	4
CEMS and Environmental monitoring	15
Total	**132**

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC deliberated the Onsite and Offsite Emergency plans and also the various mitigation measures proposed during the implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, as amended from time to time.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for the grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

21. **The** EAC, after detailed deliberations, **recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I**:

(i) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented

(ii) Stack height of 30 m will be provided to the PNG fired Hot Water Generator 1500 Kcal/ hr as per CPCB norms. Electricity based Thermic Fluid Heater 20000 Kcal/hr will be installed. Stack of 30 m along with acoustic enclosure shall be provided to D G Set (2 x 1000KVA) as per CPCB norms. As proposed, FO /Coal shall not be used as fuel.

(i) Water scrubber shall be provided to process reactors and dryer to control process emissions. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standard.

(ii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB.

(iii) Total fresh water requirement from Ground Water Source shall not exceed 6.5 m^3/day.

(iv) NOC from the Central Ground Water Authority shall be obtained before start of the construction of plant for drawing of the Ground water for the project activities. State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

(v) Total industrial effluent generation shall not exceed 8.700 KLD. Industrial effluent shall be treated in ETP comprising primary, secondary and tertiary treatment. Dedicated treatment facility at source shall be created for treatment of heavy metal (i.e. Nickel, Lead, Cadmium etc) generated from process. Proper pH sensor and ORP meter shall be installed in the heavy metal treatment facility. Treated effluent shall be recycled for process and cooling tower make up. Domestic waste of 1.700 KLD shall be treated in STP of 3 KLD capacity and the treated water shall be used for greenbelt development. No effluent/treated water shall be discharged outside the plant premises and ZLD shall be maintained.

(vi) The green belt of at least 5 m-10m width shall be developed over an area of 8839 m^2 with mainly along the plant periphery and across the premises inside road. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. 2210 number of plant species shall be planted as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(vii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions by engaging Environment Officials. In addition to this, one safety & health officer as per the qualification given in Factories Act, 1948 shall be engaged within a month of grant of EC. The PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional

Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(viii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP Rs. 700 Lakhs (Capital cost) and ₹ 132 Lakhs per annum (Recurring cost)] shall be kept in a separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(ix) All the hazardous waste shall be managed and disposed as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration site or send for co-processing. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet garbage shall be converted into compost and used as manure for greenbelt development.

(x) The PP shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(xi) The project proponent shall comply with the environment norms for 'synthetic organic chemicals' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21st July, 2010 under the provisions of the Environment (Protection) Rules, 1986.

(xii) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.

(xiii) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xiv) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xv) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xvi) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xvii) The unit shall make the arrangement for the protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.

(xviii) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xix) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

(xx) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places.

(xxi) Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Chemicals shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xxii) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

(xxiii) The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

Agenda No. 84. 3

Expansion in existing manufacturing unit of Synthetic Organic Chemical (Dyes) capacity from 5 MT/Month to 105 MT/Month, located at Plot. No: C-1/134, Phase - I, Near Neeka Tubes, GIDC Vatva, Ahmedabad, Gujarat by M/s. Mars Exports - Reconsideration of ToR

[Proposal no: IA/GJ/IND3/452041/2023, F.NO IA-J-11011/405/2023-IA-II(I)]

1. The proposal is for the issuance of ToR for preparation of EIA/EMP for the Expansion in existing manufacturing unit of Synthetic Organic Chemical (Dyes) capacity from 5 MT/Month to 105 MT/Month, located at Plot. No: C-1/134, Phase - I, Near Neeka Tubes, GIDC Vatva, Ahmedabad, Gujarat by M/s. Mars Exports. **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

2. The project/activity is covered under Category 'B' of item 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, due to the applicability of general conditions i.e. project site is located within CPA, it requires appraisal at Central Level by the Expert Appraisal Committee (EAC).

3. The PP applied for the ToR vide proposal number no **IA/GJ/IND3/452041/2023** dated 21.2.2024. The proposal was placed 77th EAC Meeting held on14th March 2024, in which EAC deferred the proposal for want of requisite information now the proposal is placed in this 84th EAC meeting held on 21.8.2024 wherein the PP made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported the proposed product details as follows:

Sr. No.	Product Name	CAS No.	Quantity (MT/M)			Use
			Existing	Proposed	Total	
1	Reactive Orange M2R	12225-82-0	5	0	5	Used in Textile Industries for Printing & Dyeing
2	Reactive Orange H2R	12225-85-3				
3	Reactive Red RR	--				
4	Reactive Yellow R	--				
	Reactive Dyes		0	100	100	
1	RED 21	11099-79-9				
2	RED 23	12769-07-2				
3	RED 35	12226-12-9				
4	RED 106	105635-66-3				
5	RED 111	88232-20-6				
6	RED 180	72828-03-6				
7	RED 120	61951-82-4				
8	RED 141	61931-52-0				
9	RED 152	71870-80-5				
10	RED 195A	93050-79-4				
11	RED 194	23354-52-1				
12	RED 250	125830-49-1				

13	RED 198	145017-98-7				
14	RED 223	93051-43-5				
15	RED 239	89157-03-9				
16	RED 2	12226-03-8				
17	RED 11	12226-08-3				
18	RED SE	Mixed Dyes				
19	RED RR	Mixed Dyes				
20	RED RGB	Mixed Dyes				
21	DEEP RED RGB	Mixed Dyes				
22	ULTRA RED RGB	Mixed Dyes				
23	RED HEXL	Mixed Dyes				
24	RED SG	Mixed Dyes				
25	BRILL.RED S3R	Mixed Dyes				
26	RED WIN	Mixed Dyes				
27	DEEP RED S2B	Mixed Dyes				
28	RED CE	Mixed Dyes				
29	RED CESR	Mixed Dyes				
30	DEEP RED CE	Mixed Dyes				
31	DEEP RED CESR	Mixed Dyes				
32	RED ED	Mixed Dyes				
33	RED ED3B	Mixed Dyes				
34	RED ED7B	Mixed Dyes				
35	RED 24	70210-20-7				
36	RED 31	12237-00-2				
37	RED 45	12226-22-1				
38	RED 218	113653-03-5				
39	RED 245	340977-00-6				
40	BROWN 9	12225-66-0				
41	BROWN 11	12225-68-2				
42	CRIMSON HEXL	Mixed Dyes				
43	RED 49	Mixed Dyes				
44	RUBINE HEXL	Mixed Dyes				
45	RED 74	Mixed Dyes				
46	BROWN 18	Mixed Dyes				
47	SCARLLET MEBF	Mixed Dyes				
48	VIOLET 5	12226-38-9				
49	GREEN 19A	61931-49-5				
50	VIOLET 13	12270-87-0				
51	FAST MAGENTA MEBF	Mix Dyes				
52	VIOLET ME2RL	129898-77-7				
53	VIOLET 26	--				
54	VIOLET 1	12239-45-1				
55	VIOLET 12	Mixed Dyes				
56	VIOLET 14	Mixed Dyes				
57	ULTRA CRIMSON	Mixed Dyes				

58	BLACK 5	17095-24-8				
59	BLACK 31	12731-63-4				
60	DEEP BLACK N 150	12225-25-1				
61	BLACK WNN	Mixed Dyes				
62	BLACK HFGR	2580-78-0				
63	BLACK HEBL	Mixed Dyes				
64	BLACK SJ	Mixed Dyes				
65	BLACK 20	Mixed Dyes				
66	BLACK GSA	Mixed Dyes				
67	BLACK RSA	Mixed Dyes				
68	BLACK GSP	Mixed Dyes				
69	BLACK WHF	Mixed Dyes				
70	DEEP BLACK RGB	Mixed Dyes				
71	CARBON BLACK RGB	Mixed Dyes				
72	BLUE 21	12236-86-1				
73	BLUE 28	12225-45-5				
74	BLUE 19	2580-78-1				
75	BLUE 220	128416-19-3				
76	BLUE 203	147826-71-9				
77	BLUE 160A	71872-76-9				
78	BLUE 171	77907-32-5				
79	BLUE 172	85782-76-9				
80	BLUE 198	124448-55-1				
81	BLUE 221	93051-41-3				
82	BLUE 222	93051-44-6				
83	BLUE 248	93051-41-3				
84	BLUE 194	93050-78-3				
85	BLUE 4	13324-20-4				
86	BLUE 9	12225-37-5				
87	BLUE 81	75030-18-1				
88	NAVY BLUE RGB	93951-21-4				
89	NAVY BLUE HEXL					
90	BLUE 13	12236-84-9				
91	BLUE 49	12236-92-9				
92	BLACK 39	68259-02-9				
93	NAVY WB	Mixed Dyes				
94	BLUE 168	Mixed Dyes				
95	BLUE 161	Mixed Dyes				
96	BLUE RR	Mixed Dyes				
97	BLUE SNG	Mixed Dyes				
98	NAVY SG	Mixed Dyes				
99	NAVY BLUE SGB	Mixed Dyes				
100	BLUE CE	Mixed Dyes				
101	BLUE CESR	Mixed Dyes				
102	BLUE ED	Mixed Dyes				

103	BLUE ED2G	Mixed Dyes				
104	BLUE 25	Mixed Dyes				
105	BLUE 72	Mixed Dyes				
106	BLUE 59	Mixed Dyes				
107	BLUE 38	Mixed Dyes				
108	YELLOW 37	12237-16-0				
109	YELLOW 42	12226-63-0				
110	YELLOW 15	12226-47-0				
111	YELLOW 44	12270-91-6				
112	ORANGE 107	90597-79-8				
113	YELLOW 81	59112-78-6				
114	YELLOW 135	77907-38-1				
115	YELLOW 84	61951-85-7				
116	YELLOW 84A	61951-85-7				
117	YELLOW 160A	129898-77-7				
118	YELLOW 145A	93050-80-7				
119	YELLOW 7	12226-46-9				
120	YELLOW 86	61951-86-8				
121	YELLOW 44	12270-91-6				
122	YELLOW RR	118-75-2				
123	YELLOW HEXL	12226-63-0				
124	YELLOW S3R	93050-80-7				
125	YELLOW 18	12226-48-1				
126	YELOW 57	61969-35-5				
127	YELLOW 95	71838-98-7				
128	O 12	35642-64-9				
129	YELLOW SE	Mixed Dyes				
130	YELLOW G	Mixed Dyes				
131	YELLOW RTN	Mixed Dyes				
132	GOLDEN YELLOW 3RS	Mixed Dyes				
133	YELLOW M4G	Mixed Dyes				
134	GOL.YELLOW M4R	Mixed Dyes				
135	GOLDEN YELLOW	Mixed Dyes				
136	GOLDEN YELLOW SR	Mixed Dyes				
137	YELLOW CE	Mixed Dyes				
138	GOLDEN YELLOW CE	Mixed Dyes				
139	YELLOW ED2G	Mixed Dyes				
140	YELLOW P8G	Mixed Dyes				
141	ORANGE 7	12225-83-1				
142	ORANGE 16	12225-83-1				
143	ORANGE 78	71902-15-3				
144	ORANGE 84	91261-29-9				
145	ORANGE 84A	91261-29-9				
146	ORANGE 122	12220-12-1				
147	ORANGE 4	12225-82-0				

148	ORANGE RR	Mix Dyes				
149	ORANGE RGB	16823-51-1				
150	O 13	12225-85-3				
151	ORANGE SE	Mixed Dyes				
152	ORANGE S3R	Mixed Dyes				
153	ORANGE CE	Mixed Dyes				
154	ORANGE CESR	Mixed Dyes				
155	ORANGE ED	Mixed Dyes				
156	ORANGE ED2R	Mixed Dyes				
157	O 35	Mixed Dyes				
	Direct Dyes					
158	GREEN 26	6388-26-7				
159	VIOLET 9	6227-14-1				
160	VIOLET 35	6227-20-9				
161	VIOLET 51	5489-77-0				
162	VIOLET 66	04-03-6798				
163	GREEN 96	05-09-4335				
164	GREEN 102	--				
165	GREEN 114	3626-28-6				
166	VIOLET 7	07-10-6227				
167	YELLOW 8	10130-29-7				
168	YELLOW 11	1325-37-7				
169	YELLOW 28	8005-72-9				
170	YELLOW 44	8005-52-5				
171	YELLOW 50	3214-47-9				
172	YELLOW 86	50925-42-3				
173	YELLOW 99	10343-58-5				
174	YELLOW 142	71902-08-4				
175	YELLOW 4	04-11-3051				
176	YELLOW 6	1325-38-8				
177	YELLOW 29	6537-66-2				
178	YELLOW 34	6420-33-3				
179	YELLOW 106	12222-60-5				
180	YELLOW 107	61815-04-1				
181	YELLOW 12	2870-32-8				
182	RED 31	5001-72-9				
183	RED 80	08-10-2610				
184	RED 81	09-11-2610				
185	RED 83	15418-16-3				
186	RED 227	12222-51-4				
187	RED 239	60202-35-9				
188	RED 254	101380-00-1				
189	RED 16	07-02-6227				
190	RED 75	2829-43-8				
191	RED 79	1937-34-4				

192	RED 111	1325-65-1				
193	BROWN 78	12262-19-0				
194	BROWN 95	760132-74-9				
195	BROWN 210	12222-29-6				
196	ORANGE 26	3626-36-6				
197	ORANGE 34	12222-37-6				
198	ORANGE 39	1325-54-8				
199	ORANGE 102	6598-63-6				
200	ORANGE 37	1325-61-7				
201	ORANGE 108	6358-79-8				
202	BLUE 86	1330-38-7				
203	BLUE 199	90295-11-7				
204	BLUE 1	01-05-2610				
205	BLUE 8	2429-71-2				
206	BLUE 15	2429-74-5				
207	BLUE 71	4399-55-7				
208	BLUE 80	12222-00-3				
209	BLUE 200	72927-72-1				
210	BLUE 201	86437-47-0				
211	BLUE 218	28407-37-6				
212	BLUE 54	8004-75-9				
213	BLUE 151	110735-25-6				
214	BLACK 19	6428-31-5				
215	BLACK 155	71902-06-2				
216	BLACK 168	85631-88-5				
217	BLACK 179	6473-13-8				
218	BLACK 22	6473-13-8				
219	BLACK 56	8003-57-4				
220	BLACK 201	86437-47-0				
221	BLACK 51	34977-63-4				
TOTAL			**5**	**100**	**105**	

5. The PP reported that the CCA has been obtained by GPCB vide letter dated 19.12.2019 and it is valid up to 3.10.2024.

6. The PP reported that the total existing plant area is about existing land area is 809 m^2 Proposed expansion will be done within the existing plant premises; thus, no additional land will be required and no additional land will be used for proposed expansion and no R&R is involved.

7. The PP reported that the There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Sabarmati River is flowing at a distance of 7.71 km in WNW direction.

8. Total water requirement is 48.9 m3/day of which fresh water requirement will be 34.7 m^3/day met through GIDC Vatva water supply. Total Effluent is 69 KLPD from that, domestic effluent 1.1 KLD

will be treated in STP and 1.0 KLD will reuse for gardening purpose within premises. Industrial effluent 67.9 KLD from that Washing effluent 3.8 KLD from that, 3.2 KLD will be treated in ETP then **sent to CETP as per existing CCA**.13.2 KLD generated from reactive dyes, which will be reused in next batch. Remaining 50.9 KLD (Process: 48 KLD, Boiler: 2.4 KLD & Scrubber: 0.5 KLD) will be treated in ETP then send to Common Spray Drying facility with GPS enable vehicle and XGN generated manifest from GPCB.

9. The PP reported that the Power requirement after expansion will be 150 KVA. Existing unit has 0.5 Ton Natural Gas fired Boiler. Additionally 1 Ton Natural Gas/Agro Waste fired IBR Boiler & 8 Lac K cal/hr Natural Gas/Agro Waste fired Hot Air Generator (HAG) will be installed. Cyclone separator and Wet Scrubber with stack height of 20 m will be installed respectively for controlling the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed boiler and HAG.

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Boiler (0.5 TON) (Existing)	12	Natural Gas	500 SCM/Day	Particulate Matter SOx NOx	Adequate Stack Height
2	IBR Boiler (1 TON) (Proposed)	20	Natural Gas OR Agro Waste	700 SCM/Day OR 1.5 MT/Day	Particulate Matter SOx NOx	Cyclone separator and Wet Scrubber
3	HAG (8 Lac K cal/Hr)	20	Natural Gas OR Agro Waste	1000 SCM/Day OR 2.2 MT/Day	Particulate Matter SOx NOx	Cyclone separator and Wet Scrubber

10. Details of fuel: Existing: Natural Gas:500 SCM/Day & After Expansion Natural Gas/Agro Waste: 1700 SCM/Day/3.7 MT/Day

11. Details of Process emission generation and its management

Sr. No.	Specific Source of emission	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1	SPRAY DRYER (For Dyes) (Existing)	PM	12	Cyclone separator + Water Scrubber+ 2nd stage water scrubber + Dipping Tank

12. Details of Solid waste/ Hazardous waste generation and its management:

Sr. no.	Name of Hazardous waste	Specific Source of generation	Category as per HW Rules.	Quantity (MT/Annum)			Management of HW
				Existing	Proposed	Total	
1	ETP Waste	Effluent Treatment Plant	35.3	1.5	20	21.5	Collection, Storage, Transportation & Disposal at TSDF authorized by Board.
2	Used Oil	Lubrication in plant machineries	5.1	1.0	1.5	2.5	Collection, Storage, Transportation & Disposed by selling to Registered re refiners
3	Discarded Containers (Bag, Barrel, Drum)	Raw Material Section	33.1	0.01	29.99	30	Collection, Storage, Transportation & Disposed by selling to authorized recycler.
4	Solid Waste	Generated from reactive dyes	--	0	600	600	Collection, Storage, Transportation and Disposal at TSDF authorized by Board.

Detail of Solid Waste/Non-Hazardous Waste Generation and its Management

Sr. No.	Type of Non-Hazardous waste	Specific Source of generation	Quantity (MT/Annum)			Management of HW
			Existing	Proposed	Total	
1.	Fly Ash	Utility Section	0	100	100	Collection, Storage, Transportation and sent to Brick Manufacturing Unit.

2.	STP Sludge	From STP	0	12	12	Collection, storage and reuse as manure within plant premises.

13. Company shall develop 162 Sq. m. are for trees plantation & green belt within the factory and on periphery of the factory.

14. The estimated project cost is Rs. 4.5 Crore including existing investment of Rs. 0.24 Crore. Total employment will be 25 persons as direct & 10 persons indirect after expansion.

15. The Proposal was considered in the 77th EAC Meeting held on 14th March 2024 wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP on 17.4.2024. After that, second ADS raised on dated 18.04.2024 and reply for the same has been submitted on 12.8.2024, which is as follows:

S. No.	Queries Raised by EAC	Reply by PP
1.	**PP has not obtained clarification from GPCB**	• They would like to inform you that, after raised this ADS they have contact to Gujarat Pollution Control Board regarding gave us name transfer letter (from M/s. Gopalee Dyes & Chemicals to M/s. Mars Exports) of our unit but unfortunately, they have not available the letter. • Because of when they have given this plot (Plot No. C-1/134) on rent to M/s. Gopalee Dyes & Chemicals from 1999 with all the liabilities towards legal compliance. Due to lethargic attitude M/s. Gopalee Dyes & Chemicals towards legal compliance and not following conditions of agreement they were instructed him to break this agreement but he deny the same and also stop our entry in the unit. After all this matter, we were file suit in Hon'ble Civil Court in 2003. This civil matter was closed in the year 2012 and after that M/s. Gopalee Dyes & Chemicals has not submitted legal documents to us. • They had decided to run this unit with its old CCA (M/s. Gopalee Dyes & Industries) obtained before 2006 but **M/s. Gopalee Dyes & Chemicals has not obtained renewal of CCA and for that we had applied and paid requisite fees to SPCB Gujarat.** • They had applied to SPCB Gujarat for name transferred from M/s. Gopalee Dyes & Industries to M/s. Mars Exports dated: 23.02.2012 and meanwhile we had applied for CCA also. • PP has submitted name change inward letter from SPCB Gujarat vide letter dated 23. 2.2012

		• SPCB Gujarat has been accepted our application with mentioning of new name M/s. Mars Exports (Old Name M/s. Gopalee Dyes & Chemicals) • After pay the applicable CCA renewal fees, officer of SPCB Gujarat visited our unit • SPCB Gujarat directly change our unit's name in our CCA renewal application and for that reason we have no independent letter of name change also not in SPCB Gujarat. • Also, they would like to inform you that, presently our unit is running on valid CCA with our unit's name i.e. M/s. Mars Exports which is obtained from SPCB Gujarat. • As per EAC MOM (77th EAC (Industry-3) Meeting held on dated: 14.03.2024) Name Change letter required and for that they have contact to SPCB Gujarat and inward letter dated: 20-04-2024 • But they have not obtained Name Change Letter from SPCB Gujarat. • They had verbally said that, when you was obtained CCA renewal with also name change was done.

16. **Deliberations by the EAC:**

The Committee noted that PP has submitted the application as expansion project. However, unit did not obtaine environmental clearance for the existing unit.

PP informed that the Royal Dyechem Company is operational since 1989 and making the same products. Thereafter, in 2012 name got changed from Goplee Dyes and Chemicals to Mars Exports. However, supporting documents for the claim could not be presented by PP.

In view of the above, EAC suggested that the PP needs to submit all the chronological details (date wise) since the inception of the company alongwith supporting documents.

Accordingly, proposal was deferred for want of above said information. Thereafter, information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Agenda No.84.4

Proposed Pesticide Technical Products (21,100 MT/Annum) and Pesticide Specific Intermediates (7965 MT/Annum) Total 29,065 MT/Annum Manufacturing Plant of M/s. GSP CROP SCIENCE PVT. LTD. Located at Plot No. C/93-99, 103-109, G.I.D.C. Saykha, Tal: Vagra, Dist: Bharuch, Gujarat- Reconsideration of Environmental Clearance

[Proposal No.: IA/GJ/IND3/457642/2024, File No.: IA-J-11011/8/2023-IA-II(I)]

1. The proposal is for Environmental Clearance to the Proposed Pesticide Technical Products (21,100 MT/Annum) and Pesticide Specific Intermediates (7965 MT/Annum) Total 29,065 MT/Annum Manufacturing Plant of M/s. GSP CROP SCIENCE PVT. LTD. Located at Plot No. C/93-99, 103-109, G.I.D.C. Saykha, Tal: Vagra, Dist: Bharuch, Gujarat.

2. The project/activity is covered under Category 'A' of Item 5(b) Pesticides industry and pesticide specific intermediates (excluding formulations)), of Schedule of EIA Notification, 2006.

3. The Standard ToR was issued by the Ministry vide letter No IA-J-11011/8/2023-IA-II(I); DATED: 18/01/2023. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a Fresh EC case. The proposal was placed in this 79th EAC meeting on 8th April, 2024 in which it was deferred for want of requiste information, now the proposal is placed in this 84th EAC meeting held on 21.8.2024 wherein the PP along with accredited Consultant, M/s. Aqua-Air Environmental Engineers Pvt. Ltd (NABET Accreditation Number NABET/EIA/2023/SA 0196 Valid up to 08 April, 2024 (Extension of Validity of Accreditation till October 7, 2024) made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that the total land area is **1,50,006.08** m^2 for the proposed project and no R& R is involved in the Project. The details of products and capacity are as follows:

Sr. No.	**Name of Products**	**Quantity (MT/Annum)**	**CAS No.**	**LD50 (mg/Kg)**
Pesticide Technical				
Insecticide				
1	Thiamethoxozim	**8600**	153719-23-4	2000
2	Clothianidin		210880-92-5	5000
3	Tolfenpyrad		129558-76-5	886.4
4	Difenthiuron		80060-09-9	1950
5	Pymetrozine		123312-89-0	5693
6	Methoxyfenozid		161050-58-4	5
7	Acephate		30560-19-1	700
8	Pyrifluquianazon		337458-27-2	2000
9	Chlorantraniliprole		500008-45-7	5000

10	Thiocyclam		31895-22-4	195
11	Cyanatraniliprole		736994-63-1	5000
Herbicide				
12	Metribuzine	**9400**	21087-64-9	1100
13	Propanil		76738-62-0	490
14	Saflufenicil		372137-35-4	2000
15	S-Metolchlor		87392-12-9	2780
16	Propyzamide		23950-58-5	3350
17	pyroxasulfone		447399-55-5	2250
18	TBEE		64700-56-7	1698
19	Topramazone		210631-68-8	2000
20	Atrazin		1912-24-9	3090
Fungicide				
21	Hexaconazole	**3100**	79983-71-4	6071
22	Azoxystrobin		131860-33-8	2000
23	Thifluzamide		130000-40-7	5000
24	Trifloxystrobin		141517-21-7	2000
25	Pyraclastrobin		175013-18-0	50
26	Tebuconazole		107534-96-3	1700
27	Difenconazole		119446-68-3	1453
28	Paclobutrazole		161050-58-4	5000
29	Prothioconazole		178928-70-6	2500
30	Metiram		9006-42-2	3250
<u>Pesticide Intermediates</u>				

1	4- NOX	**7965**	99-51-4	5000
2	3-NOX		83-41-0	2110
3	1(4-Chlorophenyl)-4-4-Dimethyl-3-Pentanone (3-Pentanone)		66346-01-8	5000
4	O,O-Dimethyl phosphoramidothioate (DMPAT)		17321-47-0	410
5	2- methyl-4-(trifluoromethyl) 1,3-thiazole -5-carboxylic acid (TFM acid)		117724-63-7	--
6	2,6 dibromo-4-(trifluoromethoxy) aniline (TFM Amine)		88149-49-9	--
Total		**29065 MT/Annum**		

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act.

6. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger / Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance from the project site. River /water body Narmada is flowing at a distance of 11 km in South Direction. Total 5 numbers of the Schedule-1 Species found within 10 km distance from the project site. Names of Schedule-1 Species are Grey Mongoose, Shikra, Indian Peafowl, Barn Owl, Indian rat snake. Conservation plan is submitted to the District Forest Officer Dated 30.3.2023

7. The PP reported that the Ambient air quality monitoring was carried out at 9 locations during 1st March, 2022 to 31st May, 2022 and the baseline data indicates the ranges of concentrations as: PM_{10} (72.82 – 78.93 µg/m^3), $PM_{2.5}$ (41.52-46.88 µg/m^3), SO_2 (10.73-17.16 µg/m^3) and NO_2 (12.07-1982 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.12 µg/m^3, 0.34 µg/m^3, 0.12 µg/m^3 with respect to PM_{10}, SO_2 and NO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

8. The PP reported that the Total water requirement will be **1428** KLD (Fresh Water: 919 KLD + Recycled: 509 KLD (MEE Condensate: 240 KLD + STP: 16 KLD + Boiler Condensate: 140 KLD + Cooling Reuse: 113 KLD)). Source of water will be met through Saykha GIDC Water Supply. Total **1056** KLD (Industrial: 1040 KLD: + Domestic: 16 KLD) of effluent shall be generated. **Stream-I: 700 KLD Low COD from (Process + Scrubber) + Utilities stream 50 KLD (**from Washing, Boiler, Cooling) Total **750.0 KLD** will be treated in ETP consisting of Primary, Secondary & Tertiary treatment then send to deep sea via CETP, Sayakha for further treatment. **Stream-II: 290 KLD High COD stream** from process will be subjected to Solvent stripper and then sent to ETP consisting of primary treatment followed by in-house MEE & ATFD, MEE condensate (288 KLD) will be treated in ETP and RO Plant, RO Permeate 240.0 KLD reused within plant premises & RO Reject send to MEE Plant for further treatment. **16 KLD** Domestic wastewaters will be treated in STP and treated water will be reused for gardening.

9. Power requirement after expansion will be 3000 KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). 2 No. of 1010 KVA DG set will be used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets.

10. Unit proposed 2 Nos. of 6 TPH Boiler; 2 nos. of Thermic Fluid - 1 Heater (10 Lac Kcal/Hr). Multi Cyclone Separator with Bag Filter + Water Scrubber & Adequate stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the proposed boilers.

11. **Details of fuel:**

S. NO.	NAME OF FUEL	QUANTITY
1.	Briquettes / Imported Coal for Boiler	52 MT/Day or 40 MT/Day
2.	Briquettes / Imported Coal for Thermic Fluid Heater	18 MT/Day or 12 MT/Day
3.	Diesel for DG Set	4000 Lit./Day

12. **Details of Process Emissions Generation and its Management:**

Flue Gas Stack

Sr. No.	Source Of Emission	Stack Height	Fuel	Parameters	Air Pollution Control System
1	Boiler - 1 (6 TPH)	30 Meter	Briquettes of Bio-Coal (Agro waste): 26 MT/Day /Imported Coal: 20 MT/Day	Pollutants SPM=≤ 150 Mg/Nm3	Multi Cyclone Separator with Bag Filter + Water Scrubber
2	Boiler - 2 (6 TPH)	30 Meter	Briquettes of Bio-Coal (Agro waste): 26 MT/Day /Imported Coal: 20 MT/Day	SOX=≤ 100 Mg/Nm3	Multi Cyclone Separator with Bag Filter + Water Scrubber
3	Thermic Fluid - 1 Heater (10 Lac Kcal/Hr)	30 Meter	Briquettes of Bio-Coal (Agro waste): 9.0 MT/Day /Imported Coal: 6.0 MT/Day	NOX=≤ 50 Mg/Nm3	Multi Cyclone Separator with Bag Filter + Water Scrubber
4	Thermic Fluid - 2 Heater (10 Lac Kcal/Hr)	30 Meter	Briquettes of Bio-Coal (Agro waste): 9.0 MT/Day /Imported Coal: 6.0 MT/Day		Multi Cyclone Separator with Bag Filter + Water Scrubber

5	D G Set I (1010 KVA) (Emergency Only)	11 Meter	Diesel 2000 Lit./Day		Adequate Stack Height
6	D G Set II(1010 KVA) (Emergency Only)	11 Meter	Diesel 2000 Lit./Day		Adequate Stack Height

Process Gas Stack

Sr. No.	Source Of Emission	Stack Height	Air Pollution Control System	Parameters	
				POLLUTANTS	LIMITS
1	Process Vent-1	11 Meter	Two Stage Water Scrubber	HCL	20 Mg/Nm^3
2	Process Vent-2	11 Meter	Two Stage Water + HCl Scrubber	NH3	175 Mg/Nm^3
3	Process Vent-3	11 Meter	Two Stage Water Scrubber	HBr	30 Mg/Nm^3
4	Process Vent-4	11 Meters	Two Stage Water + Alkali Scrubber	HCl	20 Mg/Nm^3
				SO2	40 Mg/Nm^3

13. **Details of Solid Waste / Hazardous Waste Generation and its Management**

S. No.	Name of waste	Sources	Category	Quantity (MT/Annum)	Mode of Disposal
1	Used/ Spent oil	Equipment & Machineries	Sch-I/5.1	300	Collection, Storage, Transportation and reused for Machine Lubrication / Given to GPCB registered re-processor.
2	Recovered Solvent	Process	Sch-I/29.4	964567.15	Collection, Storage, Transportation and Sold to GPCB authorized re-processor end users having rule-9 Permission or reuse within plant premises.
3	Solvent Distillation	Process	Sch-I/20.3	3600	Collection, Storage, Transportation and sell to co-processing/Pre-processing or send to Common Incineration Facility.

	Residue				
4	Residual Salts from MEE	Process	Sch-I/35.3	1800	Collection, Storage, Transportation and dispose to Landfill at TSDF.
5	Sludge from ETP	In-house ETP	Sch-I/35.3	13600	
6	Sludge from Scrubbers	In-house ETP	Sch-I/37.1	6	
7	Organic Impurities	Process	Sch-I/29.1	58934	Collection, Storage, Transportation and sell to co-processing/Pre-processing or send to Common Incineration Facility.
8	Used Containers				
	Drums	Storage & handling of Raw Materials	Sch-I/33.1	120000 nos.	Collection, Storage, Transportation and sold to GPCB authorized dealer after decontamination.
	Bags and Liners	Storage & handling of Raw Materials	Sch-I/33.1	50000 nos.	

9	Spent Catalyst	Process	Sch-I/29.5	2756.8	Collection, Storage, Transportation and send to regenerator.
10	Inorganic Salt	Process	Sch-I/29.1	22149	Collection, Storage, Transportation and dispose to Landfill at TSDF.
11	Spent Acid	Process	Sch-I/29.6	23775.5	Collection, Storage, Transportation & Sell to end user having rule-9 permission or reuse within plant premises.
12	Ammonium Acetate	Process	Sch-I/29.6	13975	Collection, Storage, Transportation & Sell to end user having rule-9 permission or reuse within plant premises.
13	Poly Aluminum Chloride	Process	Sch-I/29.6	10044	
14	Hydrochloric Acid Solution	Process	Sch-I/29.6	6752	
15	Potassium Bromide Solution	Process	Sch-I/29.6	10035	
16	Sodium Bromide Solution	Process	Sch-I/29.6	27729	

17	Liqour Ammonia	Process	Sch-I/29.6	516	
18	HBr	Process	Sch-I/29.6	908.3	
19	Potassium Chloride	Process	Sch-I/29.6	14305	
20	Methyl Acetate	Process	Sch-I/29.6	7781	
21	Succinimide	Process	Sch-I/29.6	14822	
22	Acetamide	Process	Sch-I/29.6	4842	
23	Sodium Sulphate	Process	Sch-I/29.6	29233	
24	Sodium Formate	Process	Sch-I/29.6	2350	
25	Triethyl amine hydrochloride	Process	Sch-I/29.6	10246	

26	Ammonium Chloride	Process	Sch-I/29.6	2015	

Non-Hazardous Waste

NO.	NAME OF WASTE	SOURCES	CATEGORY	QUANTITY (MT/ANNUM)	MODE OF DISPOSAL
1	Fly Ash	Utility	-	300	Collection, storage in silo, transportation and sell to brick Manufacturer.
2	STP sludge	In-house STP	-	12	Used in organic manure for green belt.
3	E-waste	From Electronic Equipment's	-	0.3	Collection, Storage, Transportation and Sell to authorized recyclers or authorized vendors.
4	Bio-medical Waste	From OHC	--	0.1	Collection, Storage, Transportation and Sent to authorized bio-medical waste treatment facility
5	Canteen Waste	Canteen, Stationary, Pantry, etc.	--	0.5	Wet Waste: Collection, Storage, Transportation and compost in-house and used as Organic Manure for green belt development. Dry Waste: Collection, Storage, Transportation and send to municipal solid waste site.
6	Plastic waste	RM Packing material	--	1.0	Collection, Storage, Transportation and disposal to authorized vendor.
7	Used Batteries	After discharging	--	1.0	Collection, Storage and sold to approved Recyclers

15. The Budget earmarked towards the Environment Management Plan (EMP) is ₹ 874.565 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 15876.73 Lakhs. Industry proposes to allocate Rs 1.2741 Crore towards CER.

16. Greenbelt will be developed in an area of 33.0% i.e. 50021.97 m^2 out of total area of the project.

17. The PP reported that the project, being in notified industrial area EC was granted vide letter F. No. 21-49/2010-IA-III dated 14th September, 2017 is exempted from the public hearing as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 and O.M. No. J-111011/321/2016-IA. II(I) dated 27.04.2018

18. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment Officials for the functioning of EMC.

19. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

20. The estimated project cost is Rs. 63.705 Crores. Total employment will be 200 persons as direct and indirect.

21. The proposal was placed in the 79th EAC meeting held on 8.5.2024, in which EAC deferred the proposal for want of requisite information. Reply for the same was submitted on 10.8.2024.

<table>
<tr><th>S. No.</th><th>Queries Raised by EAC</th><th>Reply by PP</th></tr>
<tr><td></td><td>It was noted that CO is reported as BDL for baseline data of ambient air quality monitoring. Please repeat the monitoring and resubmit the data.</td><td>

CO is reported as BDL for baseline data of Ambient Air Quality Monitoring during March 2022 to May 2022 as Minimum Detectable Limit was considered 1.14 mg/m^3 with Analysis method of GC-FID.
M/s. Aqua Air Environmental Engineers Pvt. Ltd. did resampling for baseline data of Ambient Air Quality dated 03.06.2024 and we have reported result for CO, which is less than Minimum Detectable Limit of 0.05 mg/m^3 with Analysis method of NDIR spectroscopy.

<table>
<tr><th rowspan="3">SR. NO.</th><th rowspan="3">Sampling Location</th><th colspan="2">RESULT</th></tr>
<tr><th>EIA Report (Mar.-2022 to May.-2022)</th><th>Aqua Air Env. Eng. Pvt. Ltd. (03.06.2024)</th></tr>
<tr><th colspan="2">CARBON MONOXIDE (mg/m^3)</th></tr>
<tr><td>1</td><td>Project Site (A1)</td><td>BDL (Below Detectable Limit)</td><td>1.08</td></tr>
<tr><td>2</td><td>Sayakha (A2)</td><td>BDL (Below Detectable Limit)</td><td>0.94</td></tr>
<tr><td>3</td><td>Saran (A3)</td><td>BDL (Below Detectable Limit)</td><td>0.74</td></tr>
<tr><td>4</td><td>Juned (A4)</td><td>BDL (Below Detectable Limit)</td><td>0.81</td></tr>
<tr><td>5</td><td>Bhersam (A5)</td><td>BDL (Below Detectable Limit)</td><td>0.75</td></tr>
</table>
</td></tr>
</table>

6	Vilayat (A6)	BDL (Below Detectable Limit)		**0.97**
7	Cholad (A7)	BDL (Below Detectable Limit)		**1.01**
8	Amleshwar (A8)	BDL (Below Detectable Limit)		**1.11**
9	Sadathala (A9)	BDL (Below Detectable Limit)		**0.98**
10	Kothia (A10)	BDL (Below Detectable Limit)		**1.04**
		Minimum Detectable Limit (1.14 mg/m^3)		**Minimum Detectable Limit (0.05 mg/m^3)**

Inlet and outset norms for proposed ETP to be provided. PP shall provide inlet norms and discharge norms for CETP, Saykha.

They have Revised Characteristics Of Effluent Stream With Inlet Norms And Discharge Norms For CETP, Sayakha.

REVISED CHARACTERISTICS OF EFFLUENT STREAM-1

Characteristics (mg/L)

Sr. No	**Parameters**	**Untreated Effluent**	**After Primary Treatment**	**After Secondary Treatment**	**After Tertiary Treatment**	**CETP Sayakha Inlet Norms**	**CETP Sayakha Discharge Norms**
1	pH	6.5-8.5	6.5-8.5	7.0-7.5	7.0-7.5	6.5 To 8.5	6 to 9
2	TDS	5000	5000	5000	4700	10,000	--
3	COD	4000	3000	1300	1100	3500	250
4	BOD_3, 27^0C	1200	1000	400	300	1200	100
5	Ammoniacal Nitrogen	40	30	20	20	250	50

REVISED CHARACTERISTICS OF EFFLUENT STREAM-2

Sr. No.	**Parameter**	**Characteristics (mg/L)**			**MEE Condensate**
		Untreated	**After Primary Treatment**	**After Solvent Stripper**	
1.	pH	8.3	7.7	7.5	7.5
2.	TDS	159429	161692	161692	300
3.	COD	34126	25150	2000	1500
4.	BOD_3, 27^0C	6750	4820	600	500

		5.	Ammoniacal Nitrogen	50	50	30	30

Write up on measures to be taken during Chlorine and Bromine handling.

Sr. No.	Name	Type of Storage	Capacity of Tonner	No of Tonner	Possible Type of Hazards	Boiling Point
1.	Chlorine	Tonner	900 Kg	02	Corrosive	-34.04 ˚C

STORAGE SAFETY DETAILS	HANDLING PROCEDURE
1. The chlorine should be stored in cool, dry and well-ventilated area away from direct sunlight and heat in tightly sealed containers with proper handling. 2. Unauthorized person entry shall be restricted. 3. Storage area Fire Extinguisher, Sand Bucket Foam Trolley, Sprinkler system and Foam Monitor are provided. 4. Store in well Ventilated Place. 5. The chlorine should be protected from exposure to weather, extreme temperature changes.	6. Chlorine Hood with blower will be provided with scrubbing arrangement. 7. Chlorine absorption system will be provided. In case of chlorine leakage in chlorine shed it will be suck through blower and it will be scrubbed in Caustic scrubber. 8. Emergency siren will be provided with PLC SCADA System. 9. Must be used in Proper PPE's i.e. Face Mask, Hand Gloves, Safety Shoes, Body Protection suite, and SCBA set. 10. Before handling hazardous material proper safety training must be required. 11. Safety Valve and pressure gauge will be provided on reactor.

MANAGEMENT PLAN FOR HANDLING OF CHLORINE.

Preventive Measures to Avoid Such Emergency:

- Chlorine Emergency Kit will be procured and kept ready at chlorine shed.
- Chlorine Hood with blower will be provided with scrubbing arrangement.
- SCBA sets will be kept ready at chlorine handling area.
- Safety Shower and eye wash will be provided in Chlorine shed area.
- Chlorine absorption system will be provided. In case of chlorine leakage in chlorine shed it will be suck through blower and it will be scrubbed in Caustic scrubber.
- Emergency siren and wind sock will be provided.
- Tele Communication system will be with walky talky; no mobile phone will be used in case of emergency situations for communication.
- First Aid Boxes and Occupational health center will be made at site.
- Emergency organization and team will be prepared as per on site-Off site emergency planning.
- Full body protection suite and other PPEs will be kept ready in ECC at site.
- Emergency team will be prepared and trained for scenario base emergency. Like Toxic control team, Fire control team, First aid team, Communication and general administration team, Medical team etc.
- Chlorine will be stored in 900 kgs. Tonners at site.

- Chlorine tonner storage area will be away from the process plant.

Chlorine KIT, HOOD, PIT, SCBA sets will be kept ready and maintained in tiptop working condition.

Chlorine Hood with blower will be provided with scrubbing arrangement.

- Tonner handling EOT crane will be installed in Chlorine shed area for safe tonner handling.
- Safety Valve will be provided on chlorine header line and it will be connected to caustic scrubber.
- Barometric lag height will be maintained up to maximum height of the process building.
- Safety valve will be provided on vaporizer header and outlet of safety valve connected to scrubber.
- Flow and temperature controllers will be provided on process line.
- SOP will be prepared for safe handling of Chlorine tonners. 14. Caution note and emergency handling procedure will be dwell be played and trained all employees.
- Neutralizing chemicals will be kept ready in tonner storage area.
- Regular Mock-drill conducted for chlorine emergency.

Sr. No.	Name	Type of Storage	Capacity of Bottle	Max. Storage (MT)	No of Bottle	Possible Type of Hazards	Boiling Point
2.	Bromine	Bottle	3 Kg	0.9	300	Toxic	58.8 ˚C
STORAGE SAFETY DETAILS					**HANDLING PROCEDURE**		
1. Keep quantities to a minimum. 2. Keep containers tightly closed and in a cool, dry and well-ventilated location. 3. Keep in proper storage cabinets and shelving. Use lowest shelf possible. 4. Assure chemicals are properly labeled. 5. Segregate incompatible chemicals. 6. Store carcinogens in a designated area.					7. PLC/SCADA System will be Installed 8. Transfer or repackage bromine only in a controlled, closed environment. 9. Exhaust ventilating systems will be used in enclosed areas where bromine will be handled. 10. Avoid contact with skin and eyes. Avoid formation of vapors, dusts, mists, and aerosols. 11. Use appropriate exhaust ventilation. 12. Use appropriate personal protective equipment. 13. Keep flammable, pyrophoric, potentially explosive and water reactive chemicals away from sources of ignition. Use care when preparing chemical solutions			

FOLLOWING PERSONAL PROTECTIVE EQUIPMENT'S ARE TO BE MADE COMPULSORY WHEN HANDLING BROMINE

- American National Standards Institute (ANSI) approved chemical safety goggles at all times when handling Br_2.
- Use a full face shield over eyewear.
- Full body protection PVC suite
- Eyewash fountains should be located in areas where bromine is handled, used or stored.
- When in danger of contact with liquid bromine, wear an approved chemical resistant suit.
- Leather or other non-woven ANSI approved steel-toed shoes or Gum boot
- Protective rubber boots should be worn over shoes for extra protection.
- Have NIOSH approved respirators and self-contained breathing apparatus available.
- Gloves: 100% Nitrile rubber gloves or Neoprene gloves

Safety Practices in the Work Area

- We will inform our all employees of the potential hazards of contact with bromine and train them in appropriate first-aid procedures.
- Bromine handling areas will be clearly marked and restricted to qualified, trained personnel only.

Ventilation

- We will maintain bromine vapor concentration in the work area to less than 0.1 ppm with adequate exhaust hoods, ventilation systems and scrubbers. Analyze air for proper control.
- Transfer or repackage bromine only in a controlled, closed environment.
- Exhaust ventilating systems will be used in enclosed areas where bromine is handled.

Neutralization in Case of Spillage Leakage

- Neutralization with sodium Bisulfite requires 3 moles of sodium hydroxide: 1 mole sodium Bisulfite: 1 mole bromine.
- Neutralization with sodium sulfite requires 2 moles sodium hydroxide: 1 mole sodium sulfite: 1 mole bromine.
- The weights and volumes specified include a 10% excess of sodium hydroxide and sodium bisulfate or sodium sulfite.

Emergency Procedures

In case of bromine emergencies, follow recommended first aid and emergency response procedures adopted

Transportation Emergencies

- In emergency situations resulting from vehicle accidents:
- Notify the local police, fire departments, emergency responders and the carrier.
- Isolate the area.

		• Any person not dressed in proper protective clothing and not using a NIOSH approved self-contained breathing apparatus should be kept a safe distance away. • Call to the supplier • Seek immediate medical assistance for those injured and follow recommended first aid procedures. **Leaking Containers** • When handling a leaking bottle personal protective clothing, goggles and NIOSH approved self-contained breathing equipment must be worn. • Clear contaminated area of non-essential personnel and send them to assembly point. • Maintain a slight ammonia atmosphere throughout the clean-up. Carefully release anhydrous ammonia gas to neutralize bromine vapor. The ammonia gas will convert bromine to white ammonium bromide "Smoke." • Do not allow liquid bromine and liquid ammonia to combine; a violent reaction will occur. Ammonia (16 to 25% by volume) can form an explosive mixture with air. Pour hypo solution*, lime and water slurry or soda ash solution over the spill. Hypo-bromine reactions produce hydro bromic acid. • Dry sodium thiosulphate and liquid bromine produce a violent reaction; do not mix them. • Using cold water, wash neutralized bromine into a sump for transfer to an approved waste disposal facility where the waste can be processed. • Ventilate the area to remove the ammonium bromide and any bromine fumes. Scrub the floors and equipment with soap and water. **FIRST AID PROCEDURE** • Immediate medical assistance is required if bromine is swallowed, inhaled or has contacted the eyes or skin. • If bromine has been ingested, do not give anything by mouth. Seek medical attention immediately. Do not induce vomiting. • If bromine has been inhaled, move the exposed person to a well ventilated area. Seek medical attention immediately. The victim should be placed in a comfortable sitting or partly reclining position. The exposed individual should avoid exertion. If vomiting occurs, turn the patient on his side to avoid choking. Keep the patient warm. If the patient is coughing and showing signs of respiratory distress, properly trained personnel should administer oxygen. • For skin contact, the affected area must be flooded immediately with large amounts of clean water from a safety shower or other appropriate source of flowing water. Seek medical attention immediately. All contaminated clothing, including shoes, should be removed as quickly as possible while the victim is under the shower. Washing should be continued for a minimum of 30 minutes. If possible, continue to wash the affected area during transport to medical facilities. (Extended wash times of two hours or more have proven beneficial.)

		• If bromine liquid or vapor contacts the eyes, they must be irrigated immediately with large amounts of running water. Eye wash stations are preferable for irrigation. If one is not available, a hose, water source with a liberal, gentle flow may be utilized. The eyelids must be held apart during irrigation to ensure contact of water with all accessible tissues of the eyes and lids. Eyes should be washed continuously for a minimum of 30 minutes. If possible, continue flushing the eyes while transporting the employee to a physician. In all cases of bromine injury, obtain immediate medical attention. Provide emergency personnel with information about all materials used by the person and provide appropriate information about bromine and first aid procedures.

<table>
<tr><td></td><td>Confirmation regarding no ban products shall be manufactured.</td><td>They undertake that no banned pesticides will be manufactured in our unit and the products which they have applied for Environment Clearance are not covered in the list of the pesticides banned for manufacture in India published by Central Insecticides Board.</td></tr>
<tr><td></td><td>Revised water balance for monsoon and non-monsoon season.</td><td>
DURING NON-MOONSOON SEASON
<table>
<tr><th>No.</th><th>Category</th><th>Fresh Water (KL/Day)</th><th>Recycled water (KL/Day)</th><th>Total Water Consumption</th><th>Waste Water Generation</th><th>Remarks</th></tr>
<tr><td>1</td><td>Domestic</td><td>20.0</td><td>0.0</td><td>20.0</td><td>16.0</td><td>--</td></tr>
<tr><td>2</td><td>Gardening</td><td>9.0</td><td>16.0</td><td>25.0</td><td>0.0</td><td>Reuse: 16 KL STP treated water</td></tr>
<tr><td rowspan="4">3</td><td colspan="6">Industrial</td></tr>
<tr><td>Process+ Scrubber</td><td>788</td><td>240.0</td><td>1028</td><td>990.0</td><td>Recycle: RO Permeate: 240.0 KLD</td></tr>
<tr><td>Washing</td><td>5.0</td><td>0.0</td><td>5.0</td><td>5.0</td><td></td></tr>
<tr><td>Boiler</td><td>60.0</td><td>140.0</td><td>200.0</td><td>30.0</td><td rowspan="2">Recycle:</td></tr>
<tr><td></td><td>Cooling</td><td>37</td><td>113</td><td>150.0</td><td>15.0</td></tr>
<tr><td colspan="2">Total</td><td>890</td><td>493</td><td>1383</td><td>1040.0</td><td></td></tr>
<tr><td colspan="2">Grand Total</td><td>919</td><td>509</td><td>1428</td><td>1056.0</td><td></td></tr>
</table>

Total water requirement will be 1428 KLD (Fresh Water: 919 KLD + Recycled: 509 KLD (MEE Condensate: 240 KLD + STP: 16 KLD + Boiler Condensate: 140 KLD + Cooling Reuse: 113 KLD)).
Source of water will be met through Saykha GIDC Water Supply.
Total 1056 KLD (Industrial: 1040 KLD: + Domestic: 16 KLD) of effluent shall be generated.
Stream-I: 700 KLD Low COD from (Process + Scrubber) + Utilities stream 50 KLD (from Washing, Boiler, Cooling) Total 750.0 KLD will be

</td></tr>
</table>

		treated in ETP consisting of Primary, Secondary & Tertiary treatment then send to deep sea via CETP, Sayakha for further treatment. ➢ **Stream-II: 290 KLD High COD stream** from process will be subjected to Solvent stripper and then sent to ETP consisting of primary treatment followed by in-house MEE & ATFD, MEE condensate (288 KLD) will be treated in ETP and RO Plant, RO Permeate 240.0 KLD reused within plant premises & RO Reject send to MEE Plant for further treatment.**16 KLD** Domestic wastewaters will be treated in STP and treated water will be reused for gardening. **DURING MONSOON WATER TREATMENT DETAILS:** Total water requirement will be **1403** KLD (Fresh Water: 891.0 KLD + Recycled: 512.0 KLD (RO permeate: 240 KLD + STP: 16 KLD + Boiler Condensate: 140 KLD + Cooling Reuse: 113.0 KLD + 3.0 KLD RWH)). Source of water will be met through Sayakha GIDC Water Supply. Total **1056** KLD (Industrial: 1040 KLD: + Domestic: 16 KLD) of effluent shall be generated. ➢ **Stream-I: 700 KLD Low COD from Process + Utilities stream 50 KLD (**from Washing, Boiler, Cooling & Scrubbing) Total **750.0 KLD** will be treated in ETP consisting of Primary, Secondary & Tertiary treatment then send to deep sea via CETP, Sayakha for further treatment. ➢ **Stream-II: 290 KLD High COD stream** from process will be subjected to Solvent stripper and then sent to ETP consisting of primary treatment followed by in-house MEE & ATFD, MEE condensate (288 KLD) will be treated in ETP and RO Plant, RO Permeate 240.0 KLD reused within plant premises & RO Reject send to MEE Plant for further treatment. ➢ **16 KLD** Domestic wastewaters will be treated in STP and treated water will be reused in Cooling.

1. **Deliberations by the EAC:**

During deliberations, EAC discussed the following issues:

- PP submitted the revised Water balance diagram: Revised water and waste water details : Total water requirement will be 1428 KLD (Fresh Water: 879 KLD + Recycled: 549 KLD (RO Permeate: 280 KLD + STP: 16 KLD + Boiler Condensate: 140 KLD + Cooling Reuse: 113 KLD)). Fresh water source: GIDC Water Supply.
- PP submitted the revised water footprint
- PP submitted the breakup of budget earmarked for EMP. Total capital investment for the proposed is Rs. 63.705 Crores. Total Cost for Environment protection measures (including cost of ETP, MEE,

STP, Acoustic enclosures online monitoring systems, detector systems, CEMS, Odour Control, Env Lab & Tree Plantation, etc.) is Rs. 874.565 Lakhs and recurring cost for the proposed project is Rs. 15876.73 Lakhs per annum.

Environmental Components	Aspect	Mitigation	Remedial Measure	Capital Cost (Rs. In Lakhs)	Recurring Cost (Rs. In Lakhs)
Air Environment	Generation of PM and other gases	Adequate pollution control system will be provided for control of gaseous emission. Adequate stack height for better dispersion of Pollutants.	Flue gas APCM: Cost of MCS With Bag Filter + Water Scrubber (4 Nos.)	28	5
			Process Gas APCM: Two Stage Scrubber (4 Nos.)	20	2
			Cooling and Chilling units and PLC system for Distillation	12	8
Water Quality and Waste Water	Requirement of Fresh Water, Treatment of Effluent	Total water requirement will be **1428** KLD (Fresh Water: 879 KLD + Recycled: 549 KLD (RO Permeate: 280 KLD + STP: 16 KLD + Boiler Condensate: 140 KLD + Cooling Reuse: 113 KLD)). Fresh water source: GIDC Water Supply.	Collection cum Neutralization Tank (3 Nos.)	1	0.01
			Flash Mixer (2 Nos.)	0.5	0.01
			Primary Settling tank (1 Nos.)	1	0.02
			Aeration Tank-1	1	0.01
			Secondary Settling tank-1	1	0.01
			Intermediate Sump	0.2	0.01
			Multi Grade Filter-01	0.2	0.02
			Primary Clarifier	1	0.02
			Holding Tank	0.5	0.02
			Multi Grade Filter-02	0.2	0.01
			Activated Carbon Filter-01	0.2	0.02
			Treated Effluent Sump-01	0.5	0.01
			Filter Press	0.5	0.01
			Drain Pit	0.2	0.01
			Sludge Sump	0.3	0.01
			Caustic Dosing Tanks	0.5	0.01

			Alum Dosing Tank	0.5	0.01
			Poly Dosing Tanks	0.5	0.01
			Nutrient Dosing Tanks	0.5	0.01
			Stripper	0.7	0.2
			MEE Feed Tank	1	0.1
			Multi Effect Evaporator (MEE-01) with Agitated Thin Film Dryer (ATFD-01)	250	2392.4
			Final Storage Tank	1	3712.0041
			RO Plant	130	
			Rainwater Harvesting Tank	6.75	0.01
Hazardous Waste Generation	Generation of Hazardous Waste Generation of Non - Hazardous Waste	There will be generation of different kind of industrial hazardous waste such as Discarded Containers /Bags/Liners, Used/Spent Oil, ETP Sludge, Inorganic Salts, MEE Salt, Distillation Residue, Organic Residue, Stripper Residue, Spent Solvent, that will be disposed off as per Hazardous & Other Waste (Management and Transboundary Movement) Amendment Rules, 2016 and amended, 2021.	Membership Cost for Waste Disposal	10	0
			Construction of Hazardous waste Storage yard	15	
			Disposal Cost of TSDF Waste	0	305.12
			Disposal Cost of Incineration Waste	0	9380.1
			Disposal cost of Empty & Discarded Barrels/Containers /Bags/Liners contaminated with hazardous chemicals/waste	0	2.12
			Disposal cost of Non-hazardous waste	0	0.88
Noise Environment	Generation of Noise	Adequate control Measures for	Cost of Acoustic enclosure; Silencer,	0.25	0.05

		Noise and vibrations	Vibration pads; Noise PPEs, etc.		
Occupational Health	In case of any Accident	First aid box, Periodical medical Check-up of employees, Insurance policy of the employees, Safety Training	Cost of OHC Operation, Medical Officer and OHC Training, Medical Facility	15	5
			Cost of PPE Kits (Safety Helmet, Glasses, Gloves, Shoes, Fire Proximity Suit).	10	4
			Cost of Safety Boards	5	1
			Cost of Eye Wash Shower	5	1
			Cost of Antidote	2	0
			Cost of Safety Training	5	5
			Cost of Safety Audit	5	2
			Cost of Health Checkup	5	1
			Cost of On Site - Off Site Emergency Plan	20	5
			Cost of Mock Drill	10	2
			Safety measures for Hydrogenation i.e. sensors, electrical fittings, rupture discs, safety valve, auto damping system, with DCS System	10	4
			Cost of safety measures for Chlorination i.e. FRP based chlorine hood with scrubber with PLC System	10	4
			Cost of safety measures for Bromination i.e. FRP based bromine scrubber and Sodium Bisulfite	10	4

			Solution with PLC System		
Fire & Safety	--	PLC based SCADA System, Safety Audit, Fire Hydrant Line	Installation cost of all the Safety Equipment/ Control Measures, Installation Cost of PLC-Based SCADA System. Monitoring cost of 3rd party Risk assessment.	10.96	5
			Installation cost of Fire Extinguisher, Fire hydrant line, alarm system in plant area [i.e., Cost of fire extinguishers, Cost of installation of Fire hydrant line, Fire trolley siren, Electric Bell]	27	7
Green Belt Development	--	33% area will be developed as green belt within plant premises	Cost of Trees	90.03953	0
			Maintenance of Trees	0	13.50592
Environment Monitoring Program	--	Regular monitoring of the environmental parameters i.e. Ambient Air Monitoring, Noise Monitoring, Hazardous waste monitoring, water & wastewater monitoring, stack monitoring	Cost of Environment Monitoring	15	5
			Cost of Laboratory Instrument	5	0

CER Activity	--	Socio-Economic Activity	Company will contribute funds towards CER activities in next 2 years during the establishment of the project. As per CER Notification vide file no. 22-65/2017-IA.III Dated 1st May, 2018. If Project cost <100 Crores (Greenfield Project), then Company has to Spend 2% of the total capital project cost under CER Activity.	127.41	0.0
Cost of conservation plan of Schedule-I species	--	Conservation plan of Schedule-I species	5 Nos. of Schedule – I Species found within study area.	2.155	0.0
			Total	**874.565**	**15876.73**

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members /domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance with the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC

deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during the implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The expert members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

2. **The EAC, after detailed deliberations, <u>recommended</u> the project for the grant of environmental clearance, <u>subject to the compliance of the terms and conditions</u> as under, and general terms and conditions in Annexure-I:**

(i) Multi-cyclone followed by bag filter and water scrubber alongwith stack of 30 m height shall be provided to Briquette/imported coal based Steam Boilers (Capacity: 2x6TPH) and Briquette/imported coal based Thermic fluid heater (Capacity: 2x10 Lac Kilo Cal / hr.) to control the particulate emission. Stack height of 30 mts shall be provided to DG Sets of Capacity 2×1010 KVA.

(ii) Two stage water scrubber and aquas acidic solution shall be provided to control process emissions viz. NH_3. Two stage water scrubber shall be provided to control process emissions viz. HBr. Two Stage Water + Alkali Scrubber shall be provided to control process emissions viz. HCl & SO_2. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

(iii) Total fresh water requirement from GIDC Water Supply shall not exceed 879 KLD.

(iv) NOC from the Concerned Local authority shall be obtained before start of the construction of plant for drawing of the GIDC water supply for the project activities. State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and

Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

(v) The total effluent generation shall not exceed 1056 KL/Day (Industrial: 1040 KLD: + Domestic: 16 KLD). Effluent shall be segregated into three streams **STREAM-I**700 KLD Low COD from (Process + Scrubber) + Utilities stream 50 KLD (from Washing, Boiler, Cooling) out of that 700.0 KLD shall be treated in ETP-1 consisting of Primary, Secondary & Tertiary treatment then sent to CETP, Sayakha for further treatment after achieving discharge norms prescribed by CPCB/SPCB. 50 KLD shall be treated in RO plant. **STREAM-II**: **High COD stream** from process shall be subjected to Solvent stripper and then sent to ETP consisting of primary treatment followed by in-house MEE & ATFD, MEE condensate (288 KLD) shall be treated in ETP and RO Plant, RO Permeate 280.0 KLD shall be reused within plant premises & RO Reject shall be sent to MEE Plant for further treatment. **16 KLD** Domestic wastewaters shall be treated in the STP and treated water shall be reused for gardening. 549 KLD (RO Permeate: 280 KLD + STP: 16 KLD + Boiler Condensate: 140 KLD + Cooling Reuse: 113 KLD)) shall be recycled/reused. PP shall install online meter for pH, flow and TOC analyzer to monitor the treated effluent quality before discharge to CETP and record shall be maintained.

(vi) The PP shall develop greenbelt of at least 5-10 m width over an area of 50,021.97 Sq. Meter area (33.0% of total area) within the project site mainly along the plant periphery, preferably within a year of the grant of EC. Saplings selected for the plantation should be of sufficient height, preferably 6-ft shall be planted in greenbelt area. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(vii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions and shall also engage Environment Officials .In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(viii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 874.565 Lakhs (Capital cost) and ₹ 15876.73 Lakhs per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(ix) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(x) All the hazardous waste shall be managed and disposed as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration site or sent for co-processing. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development. Fly ash shall be stored in the silo and handover to brick manufacturers.

(xi) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies

(xii) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.

(xiii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(xiv) The project proponent shall comply with the environment norms for Pesticide industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 325 (E), dated 7.5.2014 under the provisions of the Environment (Protection) Rules, 1986.

(xv) Chlorine tonner shall be stored with chlorine hood with blower and connected to scrubber. Chlorine sensor alongwith alarm arrangement shall be provided.

(xvi) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.

(xvii) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xviii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xix) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xx) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.

(xxi) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be fire proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xxii) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xxiii) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

(xxiv) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 84 .5

Proposed Synthetic organic chemicals (Resin) Manufacturing unit of production capacity 2000 Mt/month located at Survey No. 261, Village Indrad, Taluka Kadi, District Mehsana, Gujarat by M/s Amura Polymers Pvt. Ltd.- Corrigendum in the Environmental Clearance

[Proposal No IA/GJ/IND3/471068/2024; File Number: IA-J-11011/189/2021-IA-II(I)]

1. The proposal is for Corrigendum in the Environmental Clearance granted by the Ministry vide letter no. **IA-J-11011/189/2021-IA-II (I) dated 31st August 2022** for the proposed synthetic organic chemicals

(resin) manufacturing unit located at Survey No. 261, Village Indrad, Taluka Kadi, District Mehsana, Gujarat – 382715 in Favor of **M/s. Amura Polymers UNIT-2.**

2. Transfer of EC was granted by the Ministry vide letter no. **IA-J-11011/189/2021-IA-II(I) dated 9th September 2023 from M/s. Amura Polymers UNIT-2 to M/s. Amura Polymers Pvt. Ltd.**

3. The project proponent has requested for amendment in the EC with the details as under;

<table>
<tr><th>PARA OF EC ISSUED BY MOEF &CC</th><th>DETAILS AS PER EC</th><th>TO BE REVISED/ READ AS</th><th>JUSTIFICATION REASON</th></tr>
<tr><td rowspan="2">Condition no. 5, Page no. 2</td><td colspan="3"><u>DETAILS AS PER EC</u></td></tr>
<tr><td colspan="2">The PP reported that the proposed land area is 0.6788 Ha and no R&R is involved in the Project. The details of the products are as follows:
<table>
<tr><th>NO.</th><th>DESCRIPTION</th><th>PHYSICAL FORM</th><th>TYPE OF PACKING / STORAGE/ MODE OF STORAGE</th><th>TRANSPORTATION</th><th>CAPACITY OF STORAGE</th></tr>
<tr><td>1</td><td>Alkyd Resin</td><td>Liquid</td><td>Drum</td><td>will be transported by road, rail & ship</td><td>0.22 MT</td></tr>
<tr><td>2</td><td>Polyester Resin</td><td>Liquid</td><td>Drum</td><td>will be transported by road, rail & ship</td><td>0.22 MT</td></tr>
<tr><td>3</td><td>Polyamide Resin</td><td>Liquid</td><td>Drum</td><td>will be transported by road, rail & ship</td><td>0.22 MT</td></tr>
<tr><td>4</td><td>Acrylic Resin</td><td>Liquid</td><td>Drum</td><td>will be transported by road, rail & ship</td><td>0.22 MT</td></tr>
<tr><td>5</td><td>Rosin ester</td><td>Liquid</td><td>Drum</td><td>will be transported by road, rail & ship</td><td>0.22 MT</td></tr>
</table></td><td>They respectfully requested that the Environmental Clearance (EC) letter accurately reflect the details of the products as per the Final EIA Report. The table in the original EC letter does not align with the product quantities and details outlined in</td></tr>
</table>

	6	Epoxy Resin	Liquid	Drum	will be transported by road, rail & ship	0.22 MT
	7	P.F. Resin	Liquid	Drum	will be transported by road, rail & ship	0.22 MT
	8	M.F. Resin	Liquid	Drum	will be transported by road, rail & ship	0.22 MT
	9	U.F. Resin	Liquid	Drum	will be transported by road, rail & ship	0.22 MT
	10	Ketonic Resin	Liquid	Drum	will be transported by road, rail & ship	0.22 MT

TO BE REVISED/ READ AS

The PP reported that the proposed land area is 0.6788 Ha and no R& R is involved in the Project. The details of products and capacity are as under:

SR. NO.	PRODUCT NAME	QUANTITY (T/MONTH)	CAS NUMBER
1	Alkyd Resin	1300	63148-69-6
2	Polyester Resin	205	113669-95-7
3	Polyamide Resin	50	63428-84-2
4	Acrylic Resin	100	9063-87-0
5	Rosin ester	140	8050-31-5
6	Epoxy Resin	100	90598-46-2
7	P.F. Resin	25	9003-35-4
8	M.F. Resin	25	9003-08-1
9	U.F. Resin	50	9011-05-6
10	Ketonic Resin	5	25054-06-2
	Total	**2000 T/MONTH**	

the Final EIA Report. We have attached the relevant product table from the final uploaded EIA report page no 1.1 for clarity and accuracy. We kindly request that the EC letter be amended to incorporate the correct information indicated in the Final EIA.

Condition no.: 8,	The PP reported that Ambient air quality monitoring was carried out at 8 locations during **October-December**	The PP reported that Ambient air quality monitoring was carried out at 8 locations during **December**	--

Page No.: 4	**2021** and baseline data indicates that PM10 concentration is observed within the study area in the range of 59.26 $\mu g/m^3$ to 86.61 $\mu g/m^3$. The maximum concentration is observed at Chhatral GIDC with the result 86.61 $\mu g/m^3$. The maximum concentration 98th percentile is recorded at Chhatral GIDC with the result of 86.58 $\mu g/m^3$ as the industrial area is at Chhatral GIDC. $PM_{2.5}$ concentrations is observed within the study area in the range of 27.01 $\mu g/m^3$ to 51.43 $\mu g/m^3$. The maximum concentration 98th percentile is recorded at Chhatral GIDC with the result of 51.10 $\mu g/m^3$ as the industrial area is at Chhatral GIDC. SO_2 concentration is observed within the study area in the range of 6.17 $\mu g/m^3$ to 26.86 $\mu g/m^3$. The maximum concentration is observed at Chhatral GIDC with the result 26.8 $\mu g/m^3$. The maximum concentration 98th percentile is recorded at Chhatral GIDC with the result of 26.75 $\mu g/m^3$ as the industrial area is at Chhatral GIDC. NO2 concentration is observed within the study area in the range of 17.21 $\mu g/m^3$ to 47.6 $\mu g/m^3$. The maximum concentration is observed at Chhatral GIDC with the result 47.63 $\mu g/m^3$. The maximum concentration 98th percentile is recorded at project site with the result of 47.47 $\mu g/m^3$, as the industrial area is at Chhatral GIDC. Sound levels had been recorded according to IS: 9989:1991 (Reaffirmed 2001). The maximum noise level measured in the study area was 74.2 dB (A) in day time and 69.4	**2020 to February 2021** and baseline data indicates that PM_{10} concentration is observed within the study area in the range of 59.26 $\mu g/m^3$ to 86.61 $\mu g/m^3$. The maximum concentration is observed at Chhatral GIDC with the result 86.61 $\mu g/m^3$. The maximum concentration 98th percentile is recorded at Chhatral GIDC with the result of 86.58 $\mu g/m^3$ as the industrial area is at Chhatral GIDC. $PM_{2.5}$ concentrations is observed within the study area in the range of 27.01 $\mu g/m^3$ to 51.43 $\mu g/m^3$. The maximum concentration 98th percentile is recorded at Chhatral GIDC with the result of 51.10 $\mu g/m^3$ as the industrial area is at Chhatral GIDC. SO_2 concentration is observed within the study area in the range of 6.17 $\mu g/m^3$ to 26.86 $\mu g/m^3$. The maximum concentration is observed at Chhatral GIDC with the result 26.8 $\mu g/m^3$. The maximum concentration 98th percentile is recorded at Chhatral GIDC with the result of 26.75 $\mu g/m^3$ as the industrial area is at Chhatral GIDC. NO_2 concentration is observed within the study area in the range of 17.21 $\mu g/m^3$ to 47.6 $\mu g/m^3$. The maximum concentration is observed at Chhatral GIDC with the result 47.63 $\mu g/m^3$. The maximum concentration 98th percentile is recorded at project site with the result of 47.47 $\mu g/m^3$, as	

	dB (A) in night time at Chhatral GIDC, which were below the stipulated standards. The noise levels (Leq) of the residential area within the impact zone varied from 49.9 –05.7 dB (A) in the day time and 40.0 – 43.6 dB (A) in the night time. pH is found between 7.36 to 8.33 which is well within the acceptable limit at all locations. TDS is found between 872 to 1944 which is well within the permissible limit at all locations. Chloride is found higher than the acceptable limit at project site, Indrad, Karannagar, Irana Budasan, Kadi and and Bileshwarpura but the Floride is found well within the permissible limit at all the locations. Total hardness is found higher than the acceptable limit at all the location and higher than permissible limit at Budasan, project site, Indrad, Kadi. Magnesium is found higher then acceptable & permissible limit at except Chhatral GIDC. Calcium is found higher than the acceptable limit at Indrad, Irana, Budasan, kadi and Chhatral GIDC and well within the permissible limit at all the location. Water quality index is found to be Excellent at Canal near Karannagar and Rajpur whereas the water quality index were found to be good at Irana, Budasan, Dhanot, Ambavpura and at Chhatral GIDC can be used for domestic as well as for industrial purpose after primary treatment followed by disinfection. Soil pH ranged from 6.53 to 7.41 indicating that soils are neutral in reaction. It means that soil is normal. Organic	the industrial area is at Chhatral GIDC. Sound levels had been recorded according to IS: 9989:1991 (Reaffirmed 2001). The maximum noise level measured in the study area was 74.2 dB (A) in day time and 69.4 dB (A) in night time at Chhatral GIDC, which were below the stipulated standards. The noise levels (Leq) of the residential area within the impact zone varied from 49.9 –05.7 dB (A) in the day time and 40.0 – 43.6 dB (A) in the night time. pH is found between 7.36 to 8.33 which is well within the acceptable limit at all locations. TDS is found between 872 to 1944 which is well within the permissible limit at all locations. Chloride is found higher than the acceptable limit at project site, Indrad, Karannagar, Irana, Budasan, Kadi and and Bileshwarpura but the Floride is found well within the permissible limit at all the locations. Total hardness is found higher than the acceptable limit at all the location and higher than permissible limit at Budasan, project site, Indrad, Kadi. Magnesium is found higher then acceptable & permissible limit at except Chhatral GIDC. Calcium is found higher than the acceptable limit at Indrad, Irana, Budasan, kadi and Chhatral GIDC and well within the permissible limit at all the location. Water quality index is found to be Excellent at Canal near Karannagar and Rajpur whereas	

	carbon content of all the soil samples were found from sufficient to more than sufficient. A possible explanation for high organic carbon content may be that the farmers would have buried crop residues after harvest of the crops and used organic manures. EC values of soil samples ranges from 104 to 348 (µs/cm) shows that soil of the sampling location had normal EC. CEC varies ranged from 8.88 to 39.91 meq/100gm. Sampling locations such as Rajpur and Chhatral had low value, project site had medium value and remaining sampling locations had high value. High organic matter and more amount of Mg salt would have contributed to higher CEC. The soil having low or medium CEC are generally less fertile soil and the soil having high CEC are generally high fertility with more clay content. Nutrient availability of soil samples reveals that soils were low with N and P2O5 and high in K2O. Calcium content in soil samples was below critical levels (i.e. < 25% of CEC) and Magnesium content in soil was more than critical level (i.e. < 4% of CEC). The soils of project site, Indrad, Bileshwarpara and Rajpar are sandy clay loam and remaining soil sampling locations have sandy loam. Water holding capacity of sandy clay loam and sandy loam soil found to be good and moderate respectively. SAR values found to be low to medium indicating soil are slightly salt affected. Bulk density of soil samples was ranged from 1.58 to 2.43 (g/cm3).	the water quality index were found to be good at Irana, Budasan, Dhanot, Ambavpura and at Chhatral GIDC can be used for domestic as well as for industrial purpose after primary treatment followed by disinfection. Soil pH ranged from 6.53 to 7.41 indicating that soils are neutral in reaction. It means that soil is normal. Organic carbon content of all the soil samples were found from sufficient to more than sufficient. A possible explanation for high organic carbon content may be that the farmers would have buried crop residues after harvest of the crops and used organic manures. EC values of soil samples ranges from 104 to 348 (µs/cm) shows that soil of the sampling location had normal EC. CEC varies ranged from 8.88 to 39.91 meq/100gm. Sampling locations such as Rajpur and Chhatral had low value, project site had medium value and remaining sampling locations had high value. High organic matter and more amount of Mg salt would have contributed to higher CEC. The soil having low or medium CEC are generally less fertile soil and the soil having high CEC are generally high fertility with more clay content. Nutrient availability of soil samples reveals that soils were low with N and P2O5 and high in K2O. Calcium content in soil samples was below critical levels (i.e. < 25% of CEC) and	

	Sodium value was ranged from 1.41 to 3.40 (mg/gm).	Magnesium content in soil was more than critical level (i.e. < 4% of CEC). The soils of project site, Indrad, Bileshwarpara and Rajpar are sandy clay loam and remaining soil sampling locations have sandy loam. Water holding capacity of sandy clay loam and sandy loam soil found to be good and moderate respectively. SAR values found to be low to medium indicating soil are slightly salt affected. Bulk density of soil samples was ranged from 1.58 to 2.43 (g/cm^3). Sodium value was ranged from 1.41 to 3.40 (mg/gm).	
Condition No.: 12, Page No.: 9	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and the entire volume of **64.06 KLD** effluent shall be treated through Effluent Treatment Plant including Sludge Drying bed and leachate collection in ETP.	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and the entire volume of **4.04 KLD** effluent shall be treated through Effluent Treatment Plant including Sludge Drying bed and leachate collection in ETP. ETP shall be based on advance fanton treatment process.	They kindly request a correction in the Environmental Clearance (EC) letter to accurately reflect the effluent volume as documented in the Final EIA Report. The current EC letter specifies an incorrect effluent volume of 64.06 KLD, whereas the

			correct volume, as per the water balance detailed on page no. 2.33 of the Final EIA Report, is 4. 04 KLD.

4. Deliberations by the EAC

During deliberations, EAC recommended the Corrigendum in EC as proposed in the above mentioned table.

Agenda No. 84.6

Proposed Expansion of Synthetic Organic Chemicals in Existing Manufacturing Unit located at Plot No – 207-B, 208, Road No.-4, Surat Special Economic Zone, Sachin - 394230, Tal. - Chorasi, Dis. - Surat (Gujarat). in favor of M/s ESKAY SPECIALITY CHEMICALS- Amendment in ToR

[Proposal No: IA/GJ/IND3/479248/2024, F.NO: IA-J-11011/67/2024-IA-II(I)

1. The proposal is for amendment in the Terms of References (ToR) granted by the Ministry vide letter no. file no. IA-J-11011/67/2024-IA-II(I) and Identification No. TO24A2405GJ5113998N dated 29/02/2024 for the project Proposed Expansion of Synthetic Organic Chemicals in Existing Manufacturing Unit located at Plot No – 207-B, 208, Road No.-4, Surat Special Economic Zone, Sachin - 394230, Tal. - Chorasi, Dis. - Surat (Gujarat). In favor of M/s ESKAY SPECIALITY CHEMICALS.

2. The project proponent has requested for amendment in the ToR with the details are as under;

Sr. No.	Standard ToR issued by MoEF&CC	Details as per the Granted ToR	To be revised / read as	Justification / Reasons
1.	ToR vide letter no. file no. IA-J-11011/67/2024-IA-II(I) and Identification No. TO24A2405GJ5113998N dated 29/02/2024	Product List as per the Granted TOR is mention below.	Product List after TOR Amendment is mention below.	We want to increase the production capacity of existing product i.e. Selenium Sulphide from 15

				MT/Month to 30 MT/Month. There is no water required and no waste water is generating while manufacturing of Selenium Sulphide. So only production capacity of Selenium Sulphide will be increase w.r.t Granted ToR and rest all the data will remain same.

Product List as per Granted ToR vide letter no. IA-J-11011/67/2024-IA-II(I) & Identification No. TO24A2405GJ5113998N Dated 29/02/2024

Sr. No.	Name of the Product	CAS No.	Quantity MT/Month As Per Granted TOR
1	Selenium Sulphide	7488-56-4	15.0
2	Selenium Sulphide bentonite	--	1.0
3	Iodoform	75-47-8	1.5
4	Thymol Iodide	52-22-7	0.7
5	Formulation pharma products (Liquid)	--	15.0
6	Formulation pharma products (Powder)	--	15.0
Total			**48.2**

Product List after ToR Amendment

Sr. No.	Name of the Product	CAS No.	Quantity MT/Month After ToR Amendment
1	Selenium Sulphide	7488-56-4	30.0
2	Selenium Sulphide bentonite	--	**1.0**
3	Iodoform	75-47-8	**1.5**
4	Thymol Iodide	52-22-7	**0.7**
5	Formulation pharma products (Liquid)	--	15.0
6	Formulation pharma products (Powder)	--	15.0
Total			**63.2**

3. **Deliberations by the EAC**

During deliberations, EAC desired the following addl. information:

i. EAC noted that proposed project is an expansion. PP shall submit product list table column-wise mentioning as per the existing unit; additional proposed and after expansion.

ii. It was noted that special economic zone is only for non-polluting industry. Therefore, PP shall submit a letter from the office of Special Economic Zone stating that proposed activities are allowed in the said industrial area.

Accordingly, proposal was deferred for want of above additional information. Above all additional information shall be circulated to all the members for further consideration by EAC.

Agenda No.84. 7

Expansion for the proposed synthetic organic chemicals (resin) manufacturing unit located at Survey No.: 567 (Old 395 P1, 395 P2), Village: Nava Sadulka, Taluka & District: Morbi, Gujarat – 363641 in Favor of M/s. REOLAXE LAMI ART LLP- Corrigendum in Environmental Clearance.

[Proposal no: IA/GJ/IND3/481342/2024, File No. IA-J-11011/2/2021-IA-II(I)]

1. The proposal is for Corrigendum in the Environmental Clearance granted by the Ministry vide letter no. **A-J-11011/2/2021-IA-II(I) dated 24th January 2022** for expansion for the proposed synthetic organic chemicals (resin) manufacturing unit located at Survey No.: 567 (Old 395 P1, 395 P2), Village: Nava Sadulka, Taluka & District: Morbi, Gujarat – 363641 in Favor of **M/s. REOLAXE LAMI ART LLP.**

2. The project proponent has requested for amendment in the EC with the details as under;

PARA OF EC ISSUED BY MOEF&CC	DETAILS AS PER EC	TO BE REVISED/ READ AS	JUSTIFICATION REASON
Condition no. 4 & Page no. 3	The standard TOR was issued by MoEFCC, vide letter no. IA-J-11011/2/2021-IA-II(I) dated 22nd February 2021.	The standard TOR was issued by MoEF&CC, vide letter no. IA-J-11011/2/2021-IA-II(I) dated 18th February 2021.	MoEF&CC issued the standard ToR on 18th February 2021.
Condition no. viii of Specific condition. Page no. 6	Total fresh water requirement, sourced from MIDC water supply, shall not exceed 488 CMD. Prior permission in this regard shall be obtained from the concerned regulatory authority.	Total fresh water requirement, sourced from ground water through borewell shall not exceed 60.04 KLD. Prior permission in this regard shall be obtained from the CGWA.	Kindly refer to Page no. 2.20 & 2.26 of the Final EIA Report.
Condition no. xiv of Specific condition. Page no. 7	The green belt of at least 5-10m width shall be developed in 39.5 % of the total project area.	The green belt of at least 5-10m width shall be developed in 33.93 % of the total project area.	Kindly refer to Page no. 2.9 of the Final EIA Report.
Condition no. xv of Specific condition. Page no. 7	As committed by the PP, 1 MV solar voltaic energy generation plant should be installed.	Not applicable as PP had not given any commitment regarding this condition.	Not Applicable.

		So, this condition should not be included.	

3. Deliberation by the EAC

1. **The Committee noted that PP has not submitted the copy of application for obtaining permission for ground water drawl.**
2. **PP has to revise the sewage treatment as it was earlier proposed for septic tank and soak pit.**
3. **Revised water balance to be submitted considering use of treated water from STP.**

The Committee deferred the proposal for want of additional information.

Agenda No. 84.8

Proposed synthetic organic chemicals (resin) manufacturing unit located at Survey No. 302, Plot No. 2 & 3, Village: Bhachau, Taluka: Bhachau, District: Kutch, Gujarat-370140. In favor of M/s. Ruga Lam-Corrigendum in EC

[Proposal No: IA/GJ/IND3/486301/2024File No.: IA-J-11011/211/2023-IA-II(I)]

1. The proposal is for **Corrigendum in the Environmental Clearance** granted by the Ministry vide letter no. **IA-J-11011/211/2023-IA-II(I) dated 2nd July 2024** for expansion for the proposed synthetic organic chemicals (resin) manufacturing unit located at Survey No. 302, Plot No. 2 & 3, Village: Bhachau, Taluka: Bhachau, District: Kutch, Gujarat-370140. In favor of **M/s. Ruga Lam.**

2. The project proponent has requested for amendment in the EC with the details as under;

Para of EC issued by MoEF&CC	Details as per EC	To be revised/read as	Justification reason
Deliberation no. 13 on Page no. 3	The PP reported that the Resin and Laminate plant will require a total of 56.17 KLD of water, which will be sourced from GWSSB. The water supply will consist of **42.39 KLD of fresh water and 13.78 KLD of reused water.** The plant will generate approximately 13.78 KLD of effluent, originating from process, cooling tower, steam boiler, RO, scrubber and	The PP reported that the Resin and Laminate plant will require 56.17 KLD of water, which will be sourced from GWSSB. The water supply will consist of **42.42 KLD of fresh water and 13.75 KLD of reused water.** The plant will generate approximately 13.78 KLD of effluent, originating from the process, cooling tower,	Kindly refer to Page no 2.27 of the Final EIA Report.

	washing activities. Notably, resin manufacturing activities do not require any water. Wastewater generation includes 1.5 KLD from washing, 1.6 KLD from boiler, 2.04 KLD from cooling tower, 1 KLD from the scrubber, 4 KLD from R.O. and 3.64 KLD from the manufacturing process. The plant will generate 3.42 KLD of domestic wastewater, which will be treated in STP (Sewage Treatment Plant) and reused for **gardening purpose (2.76 KLD).** No effluent/treated water shall be discharged outside the plant premises and ZLD shall be maintained.	steam boiler, RO, scrubber, and washing activities. Notably, resin manufacturing activities do not require any water. Wastewater generation includes 1.5 KLD from washing, 1.6 KLD from the boiler, 2.04 KLD from a cooling tower, 1 KLD from the scrubber, 4 KLD from R.O., and 3.64 KLD from the manufacturing process. The plant will generate 3.42 KLD of domestic wastewater, which will be treated in STP (Sewage Treatment Plant) and reused for **gardening purposes (2.73 KLD).** No effluent/treated water shall be discharged outside the plant premises and ZLD shall be maintained.	
Deliberation no. 19 on Page no. 5	The Budget earmarked towards the Environmental Management Plan (EMP) is 1.63 Crore (capital) and the Recurring Cost (operation and maintenance) will be about 1.14 Crore per Annum. Industry proposes to allocate **62.15 Lakhs** towards CER.	The Budget earmarked towards the Environmental Management Plan (EMP) is 1.63 Crore (capital) and the Recurring Cost (operation and maintenance) will be about 1.14 Crore per Annum. Industry proposes to allocate **1.24 Lakhs** towards CER.	Kindly refer to Pages 3.91 & 8.2 of the Final EIA Report.
Specific Condition no. 1.2 on Page no. 8	Multi cyclone Dust Collector followed by Bag filter and alkali Scrubber along with stack height of 40 m shall be provided to Briquette/coal-fired steam boiler of 4TPH	Multi cyclone Dust Collector followed by Bag filter and alkali Scrubber along with stack height of 40 m shall be provided to Briquette/coal-fired steam	Kindly refer Page no. 2.34 of Final EIA Report.

	and TFH **(15 Lakh Kcal/year)** to control particulate emission. Stack of 15 m will be provided to DG set of **(1*120 KVA)** as per the prescribed limits of CPCB.	boiler of 4TPH and TFH **(15 Lakh Kcal/hr)** to control particulate emission. A stack of 15 m will be provided to the D. G. set of **(1*200 KVA)** as per the prescribed limits of CPCB.	
Specific Condition no. 1.3 on Page no. 8	Activated carbon column along with stack of 11 m shall be provided to Impregnator phenolic dryer. **Dust collector followed by bag filter shall be provided to sanding machine and cutting machine.**	An activated carbon column along with a stack of 11 m shall be provided to the Impregnator phenolic dryer. **Either a Dust collector or bag filter shall be provided to the sanding machine or a Dust Collector shall be provided to the cutting machine.**	Kindly refer to Page no 2.34 of the Final EIA Report.
Specific Condition no. 1.4 on Page no. 8	The total fresh water requirement from GWSSB water supply shall not exceed **42.5 KLD.**	The total freshwater requirement from GWSSB water supply shall not exceed **42.42 KLD.**	Kindly refer to Page no 2.27 of the Final EIA Report.

3. <u>Delibeartion by the EAC</u>

During deliberations, EAC recommended the Corrigendum in EC as mentioned in the above mentioned table.

<u>Agenda No.84.9</u>

Establishment of Proposed Resin Manufacturing Plant within the Existing Plywood Manufacturing Plant located at Survey No. 653/P1, 652/P2, Shed No. 2, 653/Paiki Part-B Plot-1, Village: Haripar,Ta: Dhrangadhara, Dist: Surendranagar by M/s. Q MOR INDIA PVT. LTD.- Amendment in ToR

[Proposal No.: IA/GJ/IND3/481525/2024, File No.: IA-J-11011/48/2024-IA-II(I)

1. The proposal is for Amendment in the Terms of Reference granted by the Ministry vide letter no. **IA-J-11011/48/2024-IA-II(I) dated 17th February 2024** for the establishment of the proposed resin manufacturing plant within the existing laminate manufacturing plant located at Survey No. 653/P1, 652/P2, Shed No. 2, Village Haripar, Taluka: Dhrangadhara, SURENDRANAGAR, GUJARAT, 363310 in favor of **M/s. Q MOR INDIA PVT. LTD.**

2. The project proponent has requested for amendment in the ToR with the details as under;

SR. NO.	ToR CONDITION	ToR AMENDMENT	JUSTIFICATION/ REASON FOR AMENDMENT
1	**ADDRESS OF THE PROJECT SITE** **Survey No. 653/P1, 652/P2, Shed no. 2,** Village: Haripar, Taluka: Dhrangadhara, District: Surendranagar – 363310	**ADDRESS OF THE PROJECT SITE** **Survey No. 653/P1, 652/P2, Shed no. 2, 653/Paiki Part-B Plot-1,** Village: Haripar, Taluka: Dhrangadhara, District: Surendranagar – 363310	**Due to project requirements,** we are adding an adjacent plot, Survey No. 653/Paiki Part-B Plot-1, located at Haripar Village, Taluka: Dhrangadhara, District: Surendranagar. With this addition, the total plot area will increase from 6,405.12 m² to 11,020 m². After the addition of the said plot area in the proposed project site area, some details are changed in PFR.

3. Deliberations by the EAC

During deliberations, EAC recommended the Amendment in ToR as proposed in the above mentioned table.

Agenda No. 84.10

Proposed Expansion Project for the Manufacturing of Synthetic Organic Chemicals from 2972.40 TPA to 27600 TPA at existing unit located at Plot No: 193/1, Phase-II, GIDC Estate, Vapi-396195, Tal: Pardi, Dist.: Valsad, Gujarat by M/s M/s. Apex Pharmachem Private Limited – Consideration of EC

[Proposal No.: IA/GJ/IND3/472840/2024, F. No.: J-11011/498/2008-IA-II(I)]

1. The proposal is for Environmental Clearance to Proposed Expansion Project for the Manufacturing of Synthetic Organic Chemicals from 2972.40 TPA to 27600 TPA at existing unit located at Plot No: 193/1, Phase-II, GIDC Estate, Vapi-396195, Tal: Pardi, Dist.: Valsad, Gujarat .

2. The project/activity is covered under Category 'B' of item 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, due to the

applicability of general conditions i.e. project site is located within CPA, it requires appraisal at Central Level by the Expert Appraisal Committee (EAC).

3. **Deliberations by the EAC:**

During deliberations, EAC desired the following additional information:

(i) It was noted that a complaint was received against the project for preparation of EIA report by functional area expert of category B project.

(ii) The Committee noted that the project is category 'A' as per schedule of EIA Notification 2006 and the Functional Area expert mentioned in the EIA/EMP report is for category B projects. In this view, the PP needs to submit either the clarification from QCI (NABET) regarding the applicability of function area expert of Category B for preparation of Category A project or revise the EIA report prepared by functional area expert for category A project.

Accordingly, proposal was deferred for want of above said information. Thereafter, information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Agenda No. 84.11

Manufacturing of Active Pharmaceutical Ingredients (APIs) & Intermediates at Plot Nos. 41, 42, 51 & 52, Kadechur Industrial area, Yadagir Taluk & District of Karnataka by M/s. Lifecare Laboratories Pvt. Ltd- Consideration of Environmental Clearance

[Proposal No. IA/KA/IND3/482806/2024, F. No. IA-J-11011/240/2022-IA-II(I)]

1. The proposal is for Environmental Clearance to the Manufacturing of Active Pharmaceutical Ingredients (APIs) & Intermediates at Plot Nos. 41, 42, 51 & 52, Kadechur Industrial area, Yadagir Taluk & District of Karnataka by M/s. Lifecare Laboratories Pvt. Ltd.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) as general condition is also applicable as project falls within 5 Km radius of Interstate Boundary of Karnataka-Telangana Interstate Boundary (2.09 Km in S direction). Therefore, the proposal requires appraisal at central level by the sectoral EAC in the MOEF&CC.

3. The Standard ToR was issued by the Ministry, vide letter no J-11011/240/2022-IA-II(I) dated 16.7.2022. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a Fresh EC case. The proposal is placed in this 84th EAC meeting held on 22.8.2024, wherein the PP along with accredited Consultant, M/s. AM Enviro Engineers, [Accreditation number **NABET/EIA/2326/RA 0306_Rev 01 valid till June 30, 2026**)] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported the total land area is 26,102.22 Sqm, will be used for proposed plant and no R & R is involved in the Project. The details of products to be manufactured are as follows:

S. No.	Name of product	Qty. in kg/month	CAS No.	Therapeutic use
Active Pharmaceutical Ingredients (APIs)				
1.	Benserazide Hydrochloride	3,000	14919-77-8	To treat Parkinson's disease, parkinsonism, and restless leg syndrome
2.	Biperiden	100	514-65-8	To treat Parkinson's disease
3.	Biperiden Hydrochloride	200	1235-82-1	To treat Parkinson's disease
4.	Cabergoline	5	81409-90-7	To treat different types of medical problems that occur when too much of the hormone prolactin is produced
5.	Citicoline Sodium	2,000	33818-15-4	Help memory loss due to aging, improve vision in people with glaucoma, and help with recovery in stroke patients
6.	Dexmedetomidine Hydrochloride	2	145108-58-3	Used to sedate a patient who is under intensive medical care and needs a mechanical ventilator (breathing machine)
7.	Droxidopa	500	23651-95-8	Used to treat neurogenic orthostatic hypotension and non-diabetic autonomic neuropathy
8.	Flavoxate HCl	2,000	3717-88-2	To help decrease muscle spasms of the bladder and relieve difficult urination
9.	Isocarboxazid	100	59-63-2	To treat depression
10.	Ketoprofen	20,000	22071-15-4	To treat rheumatoid arthritis, osteoarthritis, pain, and menstrual pain
11.	Lercanidipine	100	100427-26-7	Treatment of mild to moderate essential hypertension
12.	Medetomidine	5	86347-15-1	Facilitates handling dogs and aids in the conduct of diagnostic or therapeutic procedures
13.	Melperone HCl	1,000	1622-79-3	To treat sleep disorders, confusion, and psychomotor dysfunction associated with geriatric, psychiatric, and alcohol-dependent patients
14.	Mesalazine (Mesalamine)	15,000	89-57-6	To treat ulcerative colitis and Crohn's disease and other types of inflammatory bowel disease

S. No.	Name of product	Qty. in kg/month	CAS No.	Therapeutic use
15.	Metaraminol Bitartrate	20	33402-03-8	Prevention and treatment of the acute hypotensive state occurring with spinal anesthesia
16.	Phenazopyridine Hydrochloride	3,000	136-40-3	Relieve the pain, burning, and discomfort caused by infection or irritation of the urinary tract
17.	Ramelteon	100	196597-26-9	For the treatment of insomnia characterized by difficulty with sleep onset.
18.	Suplatast Tosylate	200	94055-76-2	Inhibits Th2 cytokines and an antihistamine and antiallergic drug for asthma. Also used to treat Kimura's disease.
19.	Warfarin Sodium	500	129-06-6	To prevent blood clots from forming or growing larger in your blood and blood vessels
20.	Warfarin Sodium Clathrate	500	67430-45-9	To prevent blood clots from forming or growing larger in your blood and blood vessels
Intermediates				
21.	Alpha-Lipoic Acid	15,000	1077-28-7	To treat nerve pain in people with diabetes
22.	L-Carnitine L-Tartrate	5,000	36687-82-8	To prevent exercise fatigue, muscle weakness, chemotherapy-induced peripheral neuropathy, and hyperlipoproteinemia.
	TOTAL	**68,332**	-	-
	TOTAL (5 Products)	**58,000**	-	-

Note: From the above list of products, any 5 products will be manufactured at a given point of time.

LIST OF BY-PRODUCTS

S. No.	Name of By-product	Name of Product	Qty. in kgs/month
1.	Magnesium chloride	Biperiden	2418.90
2.	Magnesium chloride	Biperiden Hydrochloride	2418.90
3.	Aluminium Hydroxide Solution	Flavoxate Hydrochloride	10680.00

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act.

6. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc., within 10 km distance from the project site. Bhima River is flowing at a distance of 8.6 km SW in direction. There is no schedule I species found within the study area.

7. The PP reported that the Ambient air quality monitoring was carried out at 8 locations during October 2023 to December 2023 and the baseline data indicates the ranges of concentrations as: PM_{10} (69.00 – 74.00 µg/$m^{3)}$, $PM_{2.5}$ (30.00 – 39.54 µg/m^3), SO_2 (13.00 – 22.00 µg/m^3,) and NO_2 (23.00 – 34.00 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.3, 0.1, 0.577 and 0.6 µg/m^3 with respect to PM_{10}, $PM_{2.5,}$ SO_2 and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

8. The PP reported that total water requirement is 157.1 KLD of which freshwater requirement of 102.3 KLD will be met from KIADB Water Supply. The total effluent generation is 80.9 KLD, which includes industrial effluent of 77.3 KLD and domestic effluent of 3.6 KLD. The industrial effluent from process, scrubbing, RO reject, washing, boiler blowdown and cooling tower blowdown are proposed to be treated through CETP of Kadechur. The industry has obtained CETP Agreement for treatment and disposal of industrial effluent with M/s. Mother Earth Environ Tech Pvt Ltd. The domestic effluent will be sent to modular STP of capacity 4 KLD The industrial effluent will be segregated based on the concentration of total dissolved solids (TDS). High TDS effluent of 34.4 KLD will be collected and neutralized in Equalization and Neutralization tank of capacity 40 KL each and later on, will be sent to CETP. Low TDS effluent of 42.9 KLD (excluding domestic sewage) will be collected and neutralized in Equalization and Neutralization tank of capacity 50 KL each and later on, will be sent to CETP. The domestic sewage, which is LTDS stream of 3.6 KLD, will be treated in modular STP of capacity 4 KLD, and treated water of 3 KLD will be used for gardening.

9. Power requirement will be 600 KVA which will be met from GESCOM (Gulbarga Electricity Supply Company Limited). DG sets of capacity 1 X 250 KVA which will be used as standby during power failure. Stack of height 6 m AGL will be provided as per CPCB norms to the proposed DG sets.

10. The boilers with capacity 1 X 3 TPH (Briquettes/Coal (standby)) & 1 X 2 TPH (Briquettes/Coal (standby)) are proposed. Multi cyclone separator/ bag filter with a stack of height of 30 m AGL will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers. 1X2 Lakh kcal/hour (Diesel fired) thermic fluid heater, scrubbers of 2 X 500 cfm & 1 X 1000 cfm (Two stage) and cooling towers of 3 X 250 TR will be used.

11. Details of fuel:

SN	Fuel	Consumption
1.	Briquette	14 Tones/ Day (Boiler)
2.	Coal	10 Tones/Day (Standby) (Boiler)
3.	HSD	856 Liters/day (Thermic fluid heater & DG set)

12. **Details of Process Emissions Generation and its Management:**

S. No	Name of the Gas	Qty. (kg/day)	Treatment Method	Disposal Method
1.	Hydrogen chloride	108.55	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2.	Ammonia	49.11		Generated NH_4OH will be reused within the industry
3.	Sulphur dioxide	1.20	Scrubbed by using C.S. Lye solution	Residues from the reaction will be sent to CETP along with high TDS effluent
4.	Hydrogen Bromide	280.0		
5.	Hydrogen Sulphide	240.0		
6.	Nitrogen	0.01	Dispersed into atmosphere	-
7.	Carbon dioxide	194.96		
8.	Hydrogen	0.01	Dispersed into atmosphere through flame arrester	-

13. **Details of Solid Waste/ Hazardous Waste Generation and its Management:**

Sl. No	Category of HW	Name of HW	Quantity	Disposal Method
Hazardous waste generation from plant				
1.	5.1	Waste oils & Grease/ Used Mineral oil	0.2 KL/Annum	Stored in secured manner and handed over to the authorized recyclers.
2.	5.2	Oil-Soaked Cotton	0.024 MT/Annum	Stored in secured manner and handed over to the authorized incinerator/co-processing in cement kiln.
3.	20.3	Distillation Residue	350.4 MT/Annum	Store in secured manner and hand over to authorized cement industry for Co-processing/ incinerator.
4.	28.1	Process Residues & Waste	320.0 MT/Annum	Store in secured manner and hand over to authorized cement industry for Co-processing/ incinerator/TSDF.
5.	28.2	Spent Catalyst	3.0 MT/Annum	Store in secured manner and hand over to authorized recycler.
6.	28.3	Spent Carbon	5.0 MT/Annum	Store in secured manner and hand over to authorized cement industry for Co-processing/ incinerator.
7.	28.4	Off Specification Products	12.0 MT/Annum	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF/incinerator.
8.	28.5	Date expired products	6.0 MT/Annum	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF/incinerator.

Sl. No	Category of HW	Name of HW	Quantity	Disposal Method
9.	28.6	Spent Solvents	3,000 KL/Annum	Store in secured manner and hand over to authorized recyclers.
10.	33.1	Detoxified-Container & Container Liners of Hazardous Chemicals and Wastes	300 Nos/Month	After complete detoxification, shall be disposed to the outside agencies/buyers.
11.	33.2	Contaminated cotton rags or other cleaning materials	0.3 MT/Annum	Store in secured manner and hand over to authorized incinerator.
12.	IV17	Used Lead Acid batteries	2 Nos/Annum	Returned back to dealer/supplier.
Other Solid Wastes				
13.	--	Coal ash	84.0 MT/Annum	Sent to Brick Manufacturers
14.	--	Briquette ash	1,092 MT/Annum	Sent to fertilizer industries
15.	--	Used PPE	0.072 MT/Annum	Sent to TSDF
16.	--	E- Waste	0.15 MT/Annum	Authorized recyclers
17.	--	Plastic Waste	0.2 MT/Annum	Authorized recyclers
18.	--	Metal Scrap	3.0 MT/Annum	Sale to outside agencies/recyclers
19.	--	Used Filters (HEPA filters, Oil Filters etc.)	0.1 MT/Annum	Sent to TSDF
20.	--	Used / Discarded RO Membranes	0.2 MT/Annum	Sent to TSDF

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 174.2 lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 37.7 lakhs per annum. Industry proposes to allocate Rs. 15 Lakhs towards Corporate Environment Responsibility.

15. Industry will develop greenbelt in an area of 34.7 % i.e, 9,065 Sqm out of total area of the project.

16. The PP reported that the public hearing is exempted as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 as the project site is located within Kadechur Industrial area for which EC was granted vide letter F.No 21-8/2014-IA-III dated 14th October 2016**.**

17. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment Officials for the functioning of EMC.

18. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

19. The estimated project cost is Rs. 15.45 Crores. Total Employment will be 89 persons.

20. **Deliberations by the EAC:**

During deliberations, EAC desired the following additional information:

- The Committee noted that PP submitted incomplete pretreatment scheme of industrial effluent. Accordingly, the Committee suggested that effluent treatment scheme to be revised. Treatment scheme should ensure to achieve water quality for CETP inlet norms.
- Revised water balance as per monsoon and non-monsoon season.
- Plant layout along with the details of greenbelt to be provided.
- Water consumption values / figures to be round off (decimal figures to be avoided).
- The Committee noted that PP has presented air pollution control measures, water pollution control measures, Hazardous waste generation and its disposal plan etc. but the same details have not been incorporated in the Chapter 10 (EMP) of EIA report. Therefore, it was advised to the Consultant to comply with the TOR issued for preparation of EIA study and provide quantified measures to be taken for air pollution (utilities & process); wastewater management; Greenbelt Development; hazardous and solid waste management; Noise Environment; rainwater harvesting, greenbelt development plan, capital and recurring cost earmarked for EMP including CER; Post monitoring plan in Environment Management Plan chapter 10 of EIA report.
- Details of special effluent /Emission measurement device that have proposed to install.
- Please elaborate how does the proposed manufacturing technology compare with the Best Available Technology.

Accordingly, proposal was deferred for want of above additional information. Above all additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Agenda No.84.12

"Manufacturing of Active Pharmaceutical Ingredients" at Plot No. 56 at Kadechur Industrial area, Yadagir Taluk & District of Karnataka State by M/s Creative Organics - Consideration of Environmental Clearance

[Proposal No. IA/KA/IND3/487247/2024, F. No. IA-J-11011/19/2024-IA-II(I)]

1. The proposal is for Environmental Clearance to the Manufacturing of Active Pharmaceutical Ingredients" at Plot No. 56 at Kadechur Industrial area, Yadagir Taluk & District of Karnataka State by M/s. Creative Organics.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) as general condition is also applicable as project falls within 5 Km radius of Interstate Boundary of Karnataka-Telangana Interstate Boundary (2.5 Km in S direction). Therefore, the proposal requires appraisal at central level by the sectoral EAC in the MOEF&CC.

3. The Standard ToR was issued by the Ministry, vide letter no IA-J-11011/19/2024-IA-II(I) dated 01.02.2024. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a Fresh EC case. The proposal is placed in this 84th EAC meeting held on 22.8.2024, wherein the PP along with accredited Consultant, M/s. AM Enviro Engineers, [Accreditation number **NABET/EIA/2326/RA 0306_Rev 01 valid till June 30, 2026**)] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

Deliberations of EAC :

(i) The Committee noted that the Consultant submitted similar type of 3 proposals with same discrepancies. It was decided that the Consultant shall revise the EIA report by removing the following discrepancies and submit revised EIA report for appraisal:

- The Committee noted that PP submitted incomplete pretreatment scheme of industrial effluent. Accordingly, the Committee suggested that effluent treatment scheme to be revised. Treatment scheme should ensure to achieve water quality for CETP inlet norms.
- Revised water balance as per monsoon and non-monsoon season.
- Plant layout along with the details of greenbelt to be provided.
- Water consumption values / figures to be round off (decimal figures to be avoided).
- The Committee noted that PP has presented air pollution control measures, water pollution control measures, Hazardous waste generation and its disposal plan etc. but the same details have not been incorporated in the Chapter 10 (EMP) of EIA report. Therefore, it was advised to the Consultant to comply with the TOR issued for preparation of EIA study and provide quantified measures to be taken for air pollution (utilities & process); wastewater management; Greenbelt Development; hazardous and solid waste management; Noise Environment; rainwater harvesting, greenbelt development plan, capital and recurring cost earmarked for EMP including CER; Post monitoring plan in Environment Management Plan chapter 10 of EIA report.
- Details of special effluent /Emission measurement device that have proposed to install.
- Please elaborate how does the proposed manufacturing technology compare with the Best Available Technology.

Accordingly, proposal was deferred for want of above additional information. Above all additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Agenda No 84. 13

Production capacity expansion by 20% of existing production capacity within the existing plant facility for manufacturing of Synthetic organic chemicals (i.e. Dyes & Dye Intermediates, Bulk Drugs and intermediates excluding drug formulation, synthetic rubbers, basic organic

chemicals, other synthetic organic chemicals and chemical intermediates) located at plot no. 1430/1, NH no. 8A, Village & Taluka Bhachau, District Kutch, Gujarat. By M/s Aarti Industries Limited (Anushakti Division) - Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/465160/2024, F. No. J-11011/106/2009-IA-II(I)]

1. The proposal is for environmental clearance for the Production capacity expansion by 20% of existing production capacity within the existing plant facility for manufacturing of Synthetic organic chemicals (i.e. Dyes & Dye Intermediates, Bulk Drugs and intermediates excluding drug formulation, synthetic rubbers, basic organic chemicals, other synthetic organic chemicals and chemical intermediates) located at plot no. 1430/1, NH no. 8A, Village & Taluka Bhachau, District Kutch, Gujarat. By M/s Aarti Industries Limited (Anushakti Division).

2. The project/activity is covered under Category 'A' of Item 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) as the project is located outside the notified industrial area.

3. The PP applied for the Environment Clearance in the Common Application Form under 7(ii) of EIA Notification 2006 as per OM dated 11.04.2022 and submitted the EIA/EMP Report and other documents. The PP in the CAF reported that it is an **Expansion case under 7(ii).** The proposal is placed in 84th EAC Meeting held on 22.8.2024 wherein the PP and an accredited Consultant, **M/s. Kadam Environmental Consultants** [NABET accreditation till NABET/EIA/2326/RA 0303 valid till 19/03/2026], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the Existing land area is 94,898.77 m^2, no additional land will be required for proposed expansion and no R& R is involved in the Project. The details of various products are as follows:

Sr. No.	Name of Product	Production Quantity			End uses	CAS No.	Remarks
		Existing as per EC no. EC23A021GJ167443, MT/Year	Proposed, MT/Year	Total After Proposed EC, MT/Year			
A	Co-generation Power plant	4 MW	0 MW	4 MW	Captive use	-	No Change
B	Chlorination of Benzene, Toluene (Other derivatives)	71200	0	71200			
1	Mono Chloro Benzene and/or Crude Mono	64000	0	64000	Raw material for Basic	108-90-7	No Change

Sr. No.	Name of Product	Production Quantity			End uses	CAS No.	Remarks
		Existing as per EC no. EC23A021GJ167443, MT/Year	Proposed, MT/Year	Total After Proposed EC, MT/Year			
	Chloro Benzene (MCB)				pharma intermediates, Pigments, Polymer & Dye intermediates		
2	Ortho/Meta/Para Di Chloro Benzene and/or Crude Di Chloro Benzene and/or Crude Tri chloro benzene					95-50-1/ 541-73-1/ 106-46-7	No Change
3	1 2 4 Tri Chloro Benzene and/1 2 3 Tri Chloro Benzene /Crude Tri Chloro Benzene	3600	0	3600		120-82-1/ 87-61-6	No Change
4	Di Chloro Toluene Mixture and/or Crude DCT	1200	0	1200		118-69-4	No Change
5	Ortho/Meta/Para Chloro Toluene and/or Crude Ortho/Meta/Para Chloro Toluene	1200	0	1200		95-49-8/ 108-41-8/ 106-43-4	No Change
6	Di Chloro Para Nitro Aniline and/or Crude Di Chloro Para Nitro Aniline	1200	0	1200	Raw material for Speciality Chemicals & Dyes Intermediate	99-30-9	No Change
C	Mono Nitro Derivatives (Other derivatives)	34000	0	34000			

Sr. No.	Name of Product	Production Quantity			End uses	CAS No.	Remarks
		Existing as per EC no. EC23A021GJ167443, MT/Year	Proposed, MT/Year	Total After Proposed EC, MT/Year			
7	Nitrobenzene and/or Crude Nitrobenzene	24000	0	24000	Raw material for Basic pharma intermediates, Dyes Intermediates	98-95-3	No Change
8	Ortho/Meta/Para-Nitro Chloro Benzene and/or Crude Ortho/Meta/Para-Nitro Chloro Benzene					88-73-3/ 121-73-3/ 100-00-5	
9	Nitro Toluene Mixture (MNT/PNT/ONT)				Raw material for Basic pharma intermediates, Dyes Intermediates,	88-72-2	
10	Nitro Xylene mixture				Raw material for anti-oxidant, pigments and photographic chemicals.	83-41-0	
11	Nitro Cumene mixture				Raw material for dyes intermediates, basic pharmaceuticals, perfumeries	1817-47-6	
12	2 5 Di Chloro nitro benzene and/or Crude 2 5				Raw material for Basic	89-61-2	Addition of one product

Sr. No.	Name of Product	Production Quantity			End uses	CAS No.	Remarks
		Existing as per EC no. EC23A021GJ167443, MT/Year	Proposed, MT/Year	Total After Proposed EC, MT/Year			
	Di Chloro nitro benzene				pharma intermediates, Raw material for Pigments, Polymer, Dye intermediates		without change in group production quantity
13	3 4 Di Chloro nitro benzene and/or Crude 3 4 Di Chloro nitro benzene					99-54-7	
14	2 6 Di Chloro nitro benzene and/or Crude 2 6 Di Chloro nitro benzene					601-88-7	
15	2 4 Di Chloro nitro benzene and/or Crude 2 4 Di Chloro nitro benzene					611-06-3	
16	2 4 5 Tri Chloro nitro benzene and/or Crude 2 4 5 Tri Chloro nitro benzene/2 3 4 Tri Chloro nitro benzene and/or Crude 2 3 4 Tri Chloro nitro benzene					89-69-0/ 17700-09-03	
17	2 4 6 Tri Chloro nitro benzene and/or Crude 2 4 6 Tri Chloro nitro benzene					18708-70-8	
18	4-nitro-N-methyl phthalimide and/or Crude 4-nitro-N-methyl phthalimide	10000	0	10000	Raw material for Polymer	1663-84-7	No Change

Sr. No.	Name of Product	Production Quantity			End uses	CAS No.	Remarks
		Existing as per EC no. EC23A021GJ167443, MT/Year	Proposed, MT/Year	Total After Proposed EC, MT/Year			
19	2,4-dichloro-3-fluoro nitro benzene /3,5-dichloro-4- fluoro nitro benzene and/or Crude 2,4-dichloro-3- fluoro nitro benzene/Crude 3,5-dichloro-4-fluoro nitro benzene				Raw material for Pharma Intermediate	393-79-3/ 3107-19-5	
20	3-nitro benzotrifluoride (MNBTF) and/or Crude 3-nitro benzotrifluoride (MNBTF)				Raw material for Pharma Intermediate, veterinary drug intermediate	98-46-4	
21	3-nitro-4-chloro benzotrifluoride (CNBTF) and/or Crude 3-nitro-4-chloro benzotrifluoride (CNBTF)				Raw material for Pharma Intermediate	121-17-5	
22	3,5-dinitro-4-chloro benzotrifluoride (CDNBTF) and/or Crude 3,5-dinitro-4-chloro benzotrifluoride (CDNBTF)				Raw material for Pharma Intermediate	393-75-9	
23	1-(3-nitrophenyl) ethanone (3-NAP) and/or Crude 1-				Raw material for Pharma	121-89-1	

Sr. No.	Name of Product	Production Quantity			End uses	CAS No.	Remarks
		Existing as per EC no. EC23A021GJ167443, MT/Year	Proposed, MT/Year	Total After Proposed EC, MT/Year			
	(3-nitrophenyl) ethanone (3-NAP)				Intermediate		
24	2,4-dichloro-3,5-dinitro benzotrifluoride (DCDNBTF) and/or Crude 2,4-dichloro-3,5-dinitro benzotrifluoride (DCDNBTF)				Raw material for Speciality chemicals intermediate	29091-09-6	
25	2,4-Dichloro-5-fluoronitrobenzene or Crude 2,4-Dichloro-5-fluoronitrobenzene				Raw material for Pharma Intermediate	2105-59-1	
26	2-Chloro-5-nitro-benzonitrile and/or Crude 2-Chloro-5-nitro-benzonitrile				Dye and Dye Intermediate	16588-02-06	
27	2,6-dichloro-3,5-difluoronitrobenzene					1595-70-02	
28	2-chloro-4-fluoro-5-nitrobenzoic acid					114776-15-7	
D	Dinitro Derivatives (Other derivatives)	12000	0	12000			
29	Di nitro benzene and/or Crude Di nitro benzene	12000	0	12000	Dye and Dye Intermediate	99-65-0	No Change

Sr. No.	Name of Product	Production Quantity			End uses	CAS No.	Remarks
		Existing as per EC no. EC23A021GJ167443, MT/Year	Proposed, MT/Year	Total After Proposed EC, MT/Year			
30	Di nitro Chloro benzene and/or Crude Di nitro Chloro benzene				Dye and Dye Intermediate	97-00-7	
E	Mix Nitro Derivatives (Other derivatives)	12000	0	12000			
31	Mixture of Nitro Chloro Benzene and/or Crude Nitro Chloro Benzene	12000	0	12000	Dyes, Rubber Chemicals	88-73-3	No Change
32	Mixture of Di Chloro Nitro Benzene and/or Crude Di Chloro Nitro Benzene					0611-06-3	
33	Mixture of Nitro Toluene and/or Crude Nitro Toluene					99-99-0	
F	Hydrogenated/Reduction (Other derivatives)	156000	80940	236940			Increase in production quantity
34	Aniline and/or Crude Aniline	4800			Raw material for polymer, and rubber, chemical intermediate for the dye	62-53-3	
35	Monomethyl Aniline and/or Crude Monomethyl Aniline	144000			Solvent for organic reactions, Organic synthesis,	100-61-8	

Sr. No.	Name of Product	Production Quantity			End uses	CAS No.	Remarks
		Existing as per EC no. EC23A021GJ167443, MT/Year	Proposed, MT/Year	Total After Proposed EC, MT/Year			
					Fuels and fuel additives.		
36	Dimethyl Aniline and/or Crude Dimethyl Aniline	7200			Raw material Intermediate for Pharma and Dyes	121-69-7	
G	Phthalate Derivatives (Other derivatives)	60000	0	60000			
37	Di Methyl Phthalate (DMP) and/or Crude Di Methyl Phthalate (DMP)	60000	0	60000	Building Material, Additive for products to promote hardening, used in paints and varnishes, plastics, etc.	131-11-3	No Change
38	Di Iso Nonyl Phthalate (DINP) and/or Crude Di Iso Nonyl Phthalate (DINP)				Electrical and electronic products, Floor coverings, Adhesives and sealants, etc.	68515-48-0	
39	Di Iso Decyl Phthalate (DIDP) and/or Crude Di Iso Decyl Phthalate (DIDP)				Lubricants, Plasticizers, Paints and coatings.	26761-40-0	

Sr. No.	Name of Product	Production Quantity			End uses	CAS No.	Remarks
		Existing as per EC no. EC23A021GJ167443, MT/Year	Proposed, MT/Year	Total After Proposed EC, MT/Year			
40	Di Methyl Adipate (DMA)				Building material, Adhesive, Cleaning washing, paint, etc.	627-93-0	
41	Di Octyl Adipate (DOA)				Disinfectant, Food, Additive, Toys, etc.	103-23-1	
42	Di Octyl Phthalate (DOP)				Air craft, Building material, Adhesive	117-81-7	
43	Dibasic ester				Plasticizers, Paints and resins	106-65-0	
44	Dioctyl Terephthalate				Plasticizers, Paints	6422-86-2	
45	Dicyclohexyl phthalate					84-61-7	
46	Di isononyl Adipate					33703-08-1	
H	Calcium Chloride	59520	0	59520			
47	Calcium Chloride (Solid)	59520	0	59520	Beverage, Brine, oil exploration, Absorbent, Anti-freezing, Antistatic, etc.	10043-52-4	No Change
	Total (MT/year)	**4,04,720**	**80940**	**485660**			**Increase in production**

Sr. No.	Name of Product	Production Quantity			End uses	CAS No.	Remarks
		Existing as per EC no. EC23A021GJ167443, MT/Year	Proposed, MT/Year	Total After Proposed EC, MT/Year			
							quantity by 20% of the total production capacity
	By-Product						
48	Calcium Chloride solution (MT/Year)	1,70,057	0	1,70,057	Brine, oil exploration, Absorbent, Anti-freezing, Antistatic, etc.	10043-52-4	No Change

5. The PP reported that there is no violation case as per the Notification No. S.O.804 (E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act.

6. The Ministry had issued EC earlier vide letter no. EC23A021GJ167443; dated 17th June, 2023 to the existing project of Expansion of Synthetic Organic Chemical Industry at Plot No. 1430/1, NH No. 8A, Taluka Bhachau, District Kutch, State Gujarat in favour of M/s. Aarti Industries Limited (Anushakti Division)

7. The compliance report for the existing EC was received vide F. No. J-11/4-2024-IROGNR dated 22nd February 2024. Out of all 59 Conditions, it may be seeen that 42 Conditions are complied, 2 are partly complied, 6 are agreed to comply by the Project Proponent and 9 are noted by the Unit. Action taken report for the non compliances was submitted on 28th March 2024 to MoEF&CC IRO, Gandhinagar.

8. The PP reported that there are **no** national parks, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. 1 Wildlife sanctuary: Wild Ass sanctuary (habitat of wild ass) at ~ 2 km in SW direction. AIL has received the certificate for the distance of the project is 2 km from Survey no 1023, 1024, 2025 of wildlife sanctuary. 1 Biosphere Reserves: Kutch Biosphere reserve – Great runn of Kutch at ~ 8.1 km in NW direction & little runn of Kutch adjacent to site in E direction. Dalwala Vokra is flowing at a distance of 0.17 km in **West** direction from project site. A total of 14 schedule I species have been documented from the study area /buffer zone, comprising 05 species of mammals, 02 species of reptiles, and 07 species of birds. However, only four bird species were reported during the site visit under Schedule I of the Wildlife Protection Act, 1972: *Accipiter*

badius (Shikra), *Haliastur Indus* (Brahminy Kite), *Milvus migrans govinda* (Pariah Kite), and *Pavo crestatus* (Peacock). Approval of the conservation plan was received from the office of Principal Chief Conservator of Forest, Gandhinagar dated 22/05/2022 and from Chief Conservator of Forests, Bhuj dated 26/07/2023.

9. The PP reported that **Ambient air quality monitoring** was carried out at eight (8) locations during 10th October, 2023 to 10th January, 2024 and the baseline data indicates the ranges of average concentrations as: PM_{10} (minimum 36 µg/m^3 to maximum 67 µg/m^3), $PM_{2.5}$ (minimum 15 µg/m^3 to maximum 22 µg/m^3), SO_2 (minimum 6.5 µg/m^3 to maximum 9.3 µg/m^3), NO_X (minimum 10.9 µg/m^3 to maximum 16.6 µg/m^3), CO (minimum 1.14 µg/m^3 to maximum 1.32 µg/m^3) and HC (minimum 852 µg/m^3 to maximum 970 µg/m^3). AAQ modelling study for point source and line source emissions indicate that the maximum incremental GLCs after the proposed expansion project would be 5.71 µg/m^3, 4.01 µg/m^3, 7.55 µg/m^3 and 3.01 µg/m^3 with respect to PM10, $PM_{2.5}$, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

10. The PP reported that Total water requirement is 4996 m^3/day of which fresh water requirement of 3592 m^3/day will be met from Gujarat Water Infrastructure Limited (GWIL). Effluent of 510 KLD quantity will be treated through ETP, utility effluent of 798 KLD will be treated in RO followed by MEE/MVR + ATFD and generated condensate/ Permeate recycled into the cooling tower. The Scrubber water of 6 KLD, Washing of 20 KLD will be treated in MEE/MVR + ATFD and generated condensate recycled into the cooling tower. $CaCl_2$ condensates of 125 KLD will be directly reused in the plant and 75 KLD sewage will be treated in STP. The plant will be based on the Zero Liquid discharge system.

11. Power requirement after expansion will be 10 MW including existing 8 MW and will be met from In-house co-generation power plant (4MW) and Paschim Gujarat Vij Company Ltd. (PGVCL) (6 MW). Existing unit has DG sets of 2 nos. of 1000 KVA capacity and 2 nos. of 2000 KVA capacity, additionally 1 no. of 1000 kVA of DG sets are used as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed DG sets.

12. Existing unit has 1 no. of 12 TPH, 1 no. of 15 TPH and 2 nos. of 36 TPH boilers; 2 nos. of 20 Lakh Kcal/Hr, 1 no. of 30 Lakh Kcal/Hr, 1 no. of 40 Lakh Kcal/Hr Thermal Oxidizer/Waste heat Boiler for off gases 90 lakh kcal/hr/12.66 TPH and 1 no. of 0.5 Lakh Kcal/Hr Thermic Fluid Heater. Additionally, 1 no. of 36 TPH boiler, Thermal Oxidizer/Waste heat Boiler for off gases 90 lakh kcal/hr/12.66 TPH and 1 no. of 40 Lakh Kcal/Hr Thermic Fluid Heater will be installed. ESP with dry scrubber system & Multi Cyclone with Dust Collector + Dry Scrubber of 30 m and 55 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the proposed boilers.

13. **Details of fuel consumption and flue gas stacks:**

S. No.	Stack Attached to	Capacity	No. of working hrs	Type of Fuel used	Fuel consumption in Day	Stack Height in m	Stack Diameter in m	APCM Details	Parameter with limits	Remark
Existing										
1	FBC Boiler	12 TPH	24	Coal / Coal + Biomass	75 MT/Day	30	1.5	ESP + Dry Scrubber	PM: 150 mg/Nm^3 SO_2: 100 ppm NOx: 50 ppm	Working
2	Boiler	15 TPH	24	Coal / Coal + Biomass	100 T/Day	30	1.5	ESP + Dry Scrubber		Working
3	Boiler	36 TPH	24	Coal / Coal + Biomass	220 MT/Day	30	1.2	ESP + Dry Scrubber		Working
4	Boiler	36 TPH	24	Coal / Coal + Biomass	220 MT/Day	65	1.2	ESP + Dry Scrubber		Working
5	Thermic Fluid Heater	20 Lakh Kcal/Hr	24	Coal / Coal + Biomass	14.4 MT/Day	30	1.2	Multi Cyclone with Dust Collector + Dry Scrubber		Working
6	Thermic Fluid Heater	30 Lakh Kcal/Hr	24	Coal / Coal + Biomass	26 MT/Day	30	1	Bag Filter + Dry Scrubber		Working
7	Thermic Fluid Heater	40 Lakh Kcal/Hr	24	Coal / Coal +	36 MT/Day	30	1.4	ESP + Dry Scrubber		Working

S. No.	Stack Attached to	Capacity	No. of working hrs	Type of Fuel used	Fuel consumption in Day	Stack Height in m	Stack Diameter in m	APCM Details	Parameter with limits	Remark
				Biomass						
8	Thermic Fluid Heater	20 Lakh Kcal/Hr	24	LSHS	6.25 MT/day	30	0.55	Adequate stack height		Working
9	Thermic Fluid Heater	0.5 Lakh Kcal/Hr	24	Diesel	0.15 MT/day	30	0.15	Adequate stack height		Working
10	Hot Air Generator	-	24	Coal / Coal + Biomass	48 MT/Day	30	1	Alkali Scrubber		Working
11	DG Set	1000 KVA x 2 nos.	Emergency	Diesel	7800 lit/day	15	0.1524	Adequate stack height		Used in case of power failure only
12	DG set	2000 KVA x 2 nos.	Emergency	Diesel	15600 lit/day	15	0.1524	Adequate stack height		
13	Thermal Oxidizer/ Waste heat Boiler for off gases	90 lakh kcal/hr 12.66 TPH	24	Off gases / LSHS /Diesel	- / 24 MT/Day / 1 KL/hr	30	1.2	Adequate stack height		Working
Proposed										
1.	Boiler (Existing S. No. 4)	36 TPH	24	Coal / Coal + Biomass	220 MT/Day	55	1.2	ESP + Dry Scrubber	PM: 150 mg/Nm^3	Existing Working Stack height reduced to 55

S. No.	Stack Attached to	Capacity	No. of working hrs	Type of Fuel used	Fuel consumption in Day	Stack Height in m	Stack Diameter in m	APCM Details	Parameter with limits	Remark
									SO_2: 100 ppm NOx: 50 ppm	m from 65 m
2.	Thermic Fluid Heater (Existing S. No. 7)	40 Lakh Kcal/Hr	24	Coal / Coal + Biomass / LSHS or LDO	36 MT/Day / 12.5 MT/Day or 10.7 MT/Day	30	1.4	ESP + Dry Scrubber for Coal/Coal + Biomass or Adequate stack Height for LSHS/ LDO		Existing Working Alternate fuel LSHS or LDO is proposed
3.	Thermic Fluid Heater (Existing S. No. 8)	20 Lakh Kcal/Hr (2*10 Lakh Kcal/Hr)	24	LSHS or LDO	6.25 MT/day or 5.35 MT/Day	30 (Common stack for 2*10 Lakh Kcal/ Hr TFH)	1.4	Adequate Stack Height		Existing Working Alternate fuel LDO is proposed
4.	Thermal Oxidizer/ Waste heat Boiler for off gases (Existing S. No. 13)	90 lakh kcal/hr 12.66 TPH	24	Off gases /LSHS/Diesel	- / 24 MT/Day / 24 KL/day	30	1.2	Adequate Stack Height		Working Converting LSHS/ Diesel consumption from 1 KL/hr to 24 KL/day

S. No.	Stack Attached to	Capacity	No. of working hrs	Type of Fuel used	Fuel consumption in Day	Stack Height in m	Stack Diameter in m	APCM Details	Parameter with limits	Remark
5.	Thermic Fluid Heater	40 Lakh Kcal/Hr	24	Coal / LSHS / LDO	18 MT/Day or 6.25 MT/day or 5.35 MT/Day	30	1.4	ESP + Dry Scrubber for Coal/Coal + Biomass or Adequate stack Height for LSHS/ LDO		New and Working
6.	Boiler	36 TPH	24	Coal / Coal + Biomass	110 MT/Day	55	1.2	ESP + Dry Scrubber		New and Working
7.	Thermal Oxidizer/ Waste heat Boiler for off gases	90 lakh kcal/hr 12.66 TPH	24	Off gases / LSHS /Diesel	- / 24 MT/Day / 24 KL/Day	30	1.2	Adequate stack height		New and Working
8.	DG Set	1000 KVA	Emergency	Diesel	7800 lit/day	15	0.1524	Adequate stack height		Used in case of power failure only
Total After Proposed Expansion										
1	FBC Boiler	12 TPH	24	Coal / Coal + Biomass	75 MT/Day	30	1.5	ESP + Dry Scrubber	PM: 150 mg/Nm^3	Working

S. No.	Stack Attached to	Capacity	No. of working hrs	Type of Fuel used	Fuel consumption in Day	Stack Height in m	Stack Diameter in m	APCM Details	Parameter with limits	Remark
2	Boiler	15 TPH	24	Coal / Coal + Biomass	100 T/Day	30	1.5	ESP + Dry Scrubber	SO_2: 100 ppm NOx: 50 ppm	Working
3	Boiler	36 TPH	24	Coal / Coal + Biomass	220 MT/Day	30	1.2	ESP + Dry Scrubber		Working
4	Boiler	36 TPH	24	Coal / Coal + Biomass	220 MT/Day	55	1.2	ESP + Dry Scrubber		Existing Working Stack height reduced to 55 m from 65 m
5	Thermic Fluid Heater	20 Lakh Kcal/Hr	24	Coal / Coal + Biomass	14.4 MT/Day	30	1.2	Multi Cyclone with Dust Collector + Dry Scrubber		Working
6	Thermic Fluid Heater	30 Lakh Kcal/Hr	24	Coal / Coal + Biomass	26 MT/Day	30	1	Bag Filter + Dry Scrubber		Working
7	Thermic Fluid Heater	40 Lakh Kcal/Hr	24	Coal / LDO / LSHS	36 MT/Day / 12.5 MT/Day or 10.7	30	1.4	ESP + Dry Scrubber		Working

S. No.	Stack Attached to	Capacity	No. of working hrs	Type of Fuel used	Fuel consumption in Day	Stack Height in m	Stack Diameter in m	APCM Details	Parameter with limits	Remark
					MT/Day			for Coal/Coal + Biomass or Adequate stack Height for LSHS/ LDO		
8	Thermic Fluid Heater (Existing S. No. 8)	20 Lakh Kcal/Hr (2*10 Lakh Kcal/Hr)	24	LSHS or LDO	6.25 MT/day or 5.35 MT/Day	30 (Common stack for 2*10 Lakh Kcal/ Hr TFH)	1.4	Adequate Stack Height		Existing Working Alternate fuel LDO is proposed
9	Thermic Fluid Heater	0.5 Lakh Kcal/Hr	24	Diesel	0.15 MT/day	30	0.15	Adequate stack height		Working
10	Hot Air Generator	-	24	Coal / Coal + Biomass	48 MT/Day	30	1	Alkali Scrubber		Working
11	DG Set	1000 KVAx 2 nos	Emergency	Diesel	7800 lit/day	15	0.1524	Adequate stack height		Used in case of power failure only
12	DG set	2000 KVAx 2 nos	Emergency	Diesel	15600 lit/day	15	0.1524	Adequate stack height		

S. No.	Stack Attached to	Capacity	No. of working hrs	Type of Fuel used	Fuel consumption in Day	Stack Height in m	Stack Diameter in m	APCM Details	Parameter with limits	Remark
13	Thermal Oxidizer/ Waste heat Boiler for off gases	90 lakh kcal/hr 12.66 TPH	24	Off gases /LSHS/Diesel	- / 24 MT/Day / 24 KL/day	30	1.2	Adequate Stack Height		Working Converting LSHS/ Diesel consumption from 1 KL/hr to 24 KL/day
14	Thermic Fluid Heater	40 Lakh Kcal/Hr	24	Coal / LSHS / LDO	18 MT/Day or 6.25 MT/day or 5.35 MT/Day	30	1.4	ESP + Dry Scrubber for Coal/Coal + Biomass or Adequate stack Height for LSHS/ LDO		New and Working
15	Boiler	36 TPH	24	Coal / Coal + Biomass	110 MT/Day	55	1.2	ESP + Dry Scrubber		New and Working
16	Thermal Oxidizer/ Waste heat Boiler	90 lakh kcal/hr 12.66 TPH	24	Off gases / LSHS	- / 24 MT/Day / 24 KL/Day	30	1.2	Adequate Stack Height		New and Working

S. No.	Stack Attached to	Capacity	No. of working hrs	Type of Fuel used	Fuel consumption in Day	Stack Height in m	Stack Diameter in m	APCM Details	Parameter with limits	Remark
	for off gases			/Diesel						
17	DG Set	1000 KVA	Emergency	Diesel	7800 lit/day	30	0.1524	Adequate Stack Height		Used in case of power failure only

14. **Details of process emissions generation and its management:**

Sr. No	Stack Attached to	Nos. of Stacks	Stack Height in m	Pollutants Emitted with permissible limit	Air Pollution Control Measures Attached	Location	Remarks
Existing							
1	Chlorination plant (HCl stack)	1	30	HCl: 20 mg/Nm^3	Two stage water & alkali scrubber	Chlorination Plant	-
2	Nitration plant (Nitrator, Nitration plant Loading area)	1	30	NOx: 100 mg/Nm^3	two stage H_2SO_4 scrubber followed by Caustic scrubber	Nitration Plant	-
3	Alkali scrubber of $CaCl_2$ plant	1	25	PM: 150 mg/Nm^3 HCl: 20 mg/Nm^3	Alkali Scrubber	$CaCl_2$ plant	-
4	$CaCl_2$ Dryer vents	1	20	PM: 150 mg/Nm^3	Two stage wet Scrubber (Venturi Scrubber)	$CaCl_2$ plant	-
5	$CaCl_2$ mixing plant -1	1	15	HCl: 20 mg/Nm^3	Alkali scrubber	$CaCl_2$ manual handling plant mixing tank	Manual Handling section of Calcium chloride plant dismantle

Sr. No	Stack Attached to	Nos. of Stacks	Stack Height in m	Pollutants Emitted with permissible limit	Air Pollution Control Measures Attached	Location	Remarks
							so scrubber and **stack discontinued**
6	Chlorine Shed	1	15	Cl_2: 9 mg/Nm^3	Chlorine shed scrubber (Alkali Scrubber)	Chlorine Shed	-
7	2,4 Dichloro- 3,5 Dinitro Benzo Tri Fluoride (DCDNBTF) scrubber	1	11	HCl: 20 mg/Nm^3 Cl_2: 9 mg/Nm^3	Two stage (water + caustic) scrubber	DCDNBTF	-
8	HCl Tank farm - (Additional precautionary)	-	Vent connected to process reactor (closed loop)	--	Two stage (water + caustic) scrubber	HCl Tank farm	-
Proposed							
1	$CaCl_2$ mixing plant -1	1	15	HCl: 20 mg/Nm^3	Alkali scrubber	$CaCl_2$ manual handling plant mixing tank	Manual Handling section of Calcium chloride plant dismantle so scrubber and stack discontinue
2	HCL Tank farm - (Additional precautionary)	-	Vent connected to process reactor (closed loop)	–	Water Scrubber	HCl Tank farm	To prevent the fugitive emission from HCl tank farm

Sr. No	Stack Attached to	Nos. of Stacks	Stack Height in m	Pollutants Emitted with permissible limit	Air Pollution Control Measures Attached	Location	Remarks
Total after Proposed expansion							
1	Chlorination plant (HCl stack)	1	30	HCl: 20 mg/Nm^3	Two stage water & alkali scrubber	Chlorination Plant	-
2	Nitration plant (Nitrator, Nitration plant Loading area)	1	30	NOx: 100 mg/Nm^3	Two stage H_2SO_4 scrubber followed by Caustic scrubber	Nitration Plant	-
3	Alkali scrubber of $CaCl_2$ plant	1	25	PM: 150 mg/Nm^3 HCl: 20 mg/Nm^3	Alkali Scrubber	$CaCl_2$ plant	-
4	$CaCl_2$ Dryer vents	1	2`0	PM: 150 mg/Nm^3	Two stage wet Scrubber (Venturi Scrubber)	$CaCl_2$ plant	-
5	Chlorine Shed	1	15	Cl_2: 9 mg/Nm^3	Chlorine shed scrubber (Alkali Scrubber)	Chlorine Shed	-
6	2,4 Dichloro- 3,5 Dinitro Benzo Tri Fluoride (DCDNBTF) scrubber	1	11	HCl: 20 mg/Nm^3 Cl_2: 9 mg/Nm^3	Two stage (water + caustic) scrubber	DCDNBTF	-
7	HCL Tank farm - (Additional precautionary)	-	Vent connected to process reactor (closed loop)	–	Water Scrubber	HCl Tank farm	To prevent the fugitive emission from HCl tank farm

15. **Details of Solid Waste/ Hazardous Waste Generation and its Management**:

Hazardous Waste:

Sr. No.	Type of waste	Source of generation (Plant/Group)	Category	Existing Quantity as per EC (MT/year)	Proposed Quantity (MT/year)	Total After Proposed Expansion (MT/Year)	Treatment and Disposal
1	ETP Sludge and MEE/MVR & ATFD Salt	ZLD Plant	35.3	14532	7668	22200	Collection, Storage, Transportation and Disposal at Common TSDF site
2	Discarded Containers, Barrels, Drums	Packaging Material	33.1	310	165	475	Collection, Storage, Transportation and Disposal at Common TSDF site or to Pre-processing/Co-processing.
3	Used Oil/Spent Oil	Process	5.1	25	11	36	Collection, storage, Transportation & and Disposal to registered recyclers/Pre-processing/Co-processing.
4	Sludge from Calcium Chloride Plant	Process	26.1	13165	2000	15165	Collection, Storage, Transportation and Disposal at TSDF site, Pre-processing/Co-processing
5	Process waste (organic layer from after HCl purification, from flash vessel, Storage tank contaminated residue during tank cleaning	Process	26.1	200	0	200	Collection, Storage, Transportation and Disposal at TSDF/Incineration, Pre-processing/Co-processing

Sr. No.	Type of waste	Source of generation (Plant/Group)	Category	Existing Quantity as per EC (MT/year)	Proposed Quantity (MT/year)	Total After Proposed Expansion (MT/Year)	Treatment and Disposal
6	Spent Carbon	ETP/Process	36.2	200	170	370	Collection, Storage, Transportation and Disposal at TSDF/Incinerator, Pre-processing/Co-processing
7	Mix Solid waste (Contaminated Cotton Waste, Paper Waste, Woods waste, Non-Recyclable plastics/PPE's etc.)	Process	33.1	0	300	300	Collection, Storage, Transportation disposal to incineration / TSDF Site/ Pre-Processing **OR** Co-Processing
8	Spent Resin and used RO membrane	Process and RO Plant	35.2	20	18	38	Collection, Storage, Transportation and Disposal at Common TSDF site. Pre-processing/Co-processing
9	Spent HCl	Process Chloro Products of Benzene and Toluene, Other industries	26.3 of Schedule I/ B15 of Schedule II	116964	0	116964	Collection, Storage, Transportation & reuse in manufacturing of $CaCl_2$ inhouse or sold to market as per Rule 9 of Hazardous and Other wastes (Management & Transboundary Movement) Rules 2016 **OR** Reception collection, transportation, storage and use in Calcium Chloride Plant in-house

Sr. No.	Type of waste	Source of generation (Plant/Group)	Category	Existing Quantity as per EC (MT/year)	Proposed Quantity (MT/year)	Total After Proposed Expansion (MT/Year)	Treatment and Disposal
10	Spent Sulphuric Acid	Mononitration Derivatives, Dinitro Derivatives Mix Nitro Derivatives	26.3 of Schedule I/ B15 of Schedule II	247044	3058	250102	Collection, Storage, Transportation & sold to market as per Rule 9 of Hazardous and Other wastes (Management & Transboundary Movement) Rules 2016
11	Off specification products	Process	26.1	20	8	28	Collection, Storage, Transportation and Disposal at Common Incinerator/Pre-processing/Co-processing
12	Non-recyclable plastic waste & PPE's	Process	33.1	28	1	29	Collection, Storage, Transportation and Disposal at Common TSDF site / Pre-processing/Co-processing
13	Spent Catalyst	Process	26.5/ Schedule IV	12	708	720	Collection, storage, Transportation & and Disposal by Selling to registered recyclers/re-processors/ Incinerator/ pre-processing/ Co-processing
14	High TDS/COD Effluent to Common MEE	Process	35.3	0	16200	16200	Collection, Storage, Transportation and Disposal to common MEE
15	Ceramic saddles	Process	--	3	4	7	Collection, Storage, Transportation and Disposal at Common TSDF site.
16	Process Residue	Process	26.1/ 36.1	9512	1018	10530	Collection, Storage, Transportation and Sent to Incineration / Pre

Sr. No.	Type of waste	Source of generation (Plant/Group)	Category	Existing Quantity as per EC (MT/year)	Proposed Quantity (MT/year)	Total After Proposed Expansion (MT/Year)	Treatment and Disposal
							Processing /Co Processing
17	Sodium Hypochlorite Solution	HCl Scrubber	B7 of Schedule II	27356	17404	44760	Collection, Storage, Transportation & sold to market as per Rule 9 of Hazardous and Other wastes (Management & Transboundary Movement) Rules 2016
18	Calcium Chloride solution	Process	C 2 of Schedule II	170,057	0	170,057	Collection, Storage, Transportation, sold to market as per Rule 9 of Hazardous and Other wastes (Management & Transboundary Movement) Rules 2016 **OR** Reception collection, transportation, storage and use in Calcium Chloride Plant in-house
19	Spent Solvent	Process	26.4	0	250	250	Collection, storage, Transportation & and Disposal by Selling to registered recyclers/re-processors/ pre-processing/ Co-processing

Other Solid Wastes:

S. No.	Name of Waste	Source of generation (Plant/Group)	Existing Quantity (MT/year)	Proposed Quantity (MT/year)	Total After Proposed (MT/Year)	Disposal Mode
1	Insulation waste	Plant and machinery	50	0	50	Collection, storage, Transportation & and Disposal to recyclers/re-processors
2	Battery waste/Lead - Acid Batteries	Plant and machinery	20 Nos	100 Nos	120 Nos. (6 MT)	Collection, storage, Transportation and Disposal to recyclers/re-processors
3	E- waste/ Electrical waste	Plant and machinery	2	5	7	Collection, storage, Transportation and disposal to recycler / re-processor
4	Fly ash	Use of coal	26988	7572	34560	Collection, storage, Transportation and Sold to Brick Manufacturers, Construction activities and cement plant/ road construction after approval of SPCB
5	Office Waste	Admin/ Office	20	0	20	Collection, Storage, Transportation, disposal/sold to scrap processors/Pre-processing/ co processing
6	Glass	Plant/lab/ Buildings	15	0	15	Sent to authorized recyclers
7	STP Waste (Sludge)	STP	60	12	72	Collection, Storage and used as manure / gardening
8	Bio-medical waste	Occupational health center	2	0	2	Collection, Storage, Transportation, Disposal to CBWTF-Incineration

16. The Budget earmarked towards the Environment Management Plan (EMP) is ₹ 8.65 crore (capital) and the Recurring Cost (operation and maintenance) will be about ₹3.768 crore per annum. Industry proposes to allocate Rs. 54 Lakh towards CER.

S. No.	Environment Attributes	Capital Cost for Pollution Control Systems	Approximate Capital cost (Rs. In Crores)	Operational Cost for Pollution Control Systems	Approximate recurring cost per annum (Rs. in Crores)
1	Air Pollution Control Systems	1. Installation of Pollution Control Equipment: Stacks, APCM and allied equipment	1.5	1. Operation and Maintenance of Air Pollution Control Systems	0.5
		2. Online Continuous Emission Monitoring System		2. Chemical requirement	
				3. Operation and Maintenance of Online Continuous Emission Monitoring System	
2	Water Pollution Control Systems	Capital costs include Construction and Commissioning Costs for ETP, MEE/MVR + ATFD, RO & STP.	3.0	Recurring costs include electrical, manpower and chemical costs for operational and maintenance of wastewater treatment plants and their associated cost.	1.0
3	Solid and hazardous waste management Systems	Hazardous Waste Storage Shed with drainage system	1.44	1. Storage/Disposal, Transportation Cost for Landfill/Incineration/co-processing of Solid Waste, Hazardous Waste etc.	2.0
		2. Solid Waste storage, conveying systems for solid waste disposal and disposal pit		2. Renewal fee for Treatment, Storage and Disposal Facility (TSDF) facility and Common Hazardous Waste and Incineration. Facility (CHWIF),	
		3. Membership fee for Treatment, Storage and Disposal Facility (TSDF) facility and Common Hazardous Waste and			

		Incineration Facility (CHWIF), Co-processing of Waste.		Co-processing of Waste.	
4	Environment management systems	1. Consent to Establish	-	1. Consent to Operate Renewal Fees	0.05
		2. Consent to Operate Fees.		2. Manual monitoring of air, water, soil, noise quality.	
		3. Miscellaneous Studies		3. Environmental Audits	
5	Occupational Health, Fire & Safety	Fire water system, PPE, Fire extinguishers, ventilation, Occupational Health, First Aid etc.	0.55	Safety management maintenance cost	0.1
6	Greenbelt	Tree plantation	0.4	Maintenance of planted trees. Sapling cost	0.05
	Rainwater Harvesting	Rain Water Harvesting/ Recharging if any	1.0	Maintenance of Storage tank	0.05
A	**Total cost for environment protection measures**		**7.89**		**3.75**
8	Conservation plan for schedule-I fauna/ species	Plantation on Agriculture Hedges & public places/areas of Bhachau, Dayapar, Vondh, Chopdava and Navi Moti Charai villages. 150 plants for each village every year up to five years	0.22	Considering 20% mortality rate of tree plantation, maintenance cost	0.018
9	CER Budget	In area of education, environmental infrastructure development, skill development, greenbelt development	0.54	-	-
B	**Total of conservation plan & CER budget**		**0.76**	**-**	**0.018**
	Overall Total EMP Cost (A+B)		**8.65**	**Total Cost**	**3.768**

17. The PP reported that As per OM F.No. IA3-22 / 10/ 2022-IA.III [E 177258] dated 11th April 2022 stated that "The project should have gone through the public hearing process, at least once, for its existing EC

capacity on which expansion is being sought, except those category of projects which have been exempted as per para 7 III (i) of EIA Notification 2006 and its amendments. However, for the existing EC vide letter no. EC23A021GJ167443 dated 17.06.2023 of M/s. Aarti Industries Limited (Anushakti Division), the Public Hearing was conducted by the GPCB on 10th January 2023. Hence, the public hearing for the proposed expansion (by 20% of existing production capacity) project is exempted.

18. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment Officials for the functioning of EMC.

19. Out of total land area, approx. 12,609.86 m^2 (~13.29%) area is developed as a greenbelt within existing plant premises. In addition to this, 28,000 m^2 (29.50%) area is allotted and developed as Greenbelt area located at approx. 200 m from project site boundary in North East direction. Hence, the total greenbelt area is 40,609.86 m^2 (Internal: 12,609.86 m^2 + Outside: 28,000 m^2), which is approximately 42.79% of total plot area.

20. The PP submitted the Disaster, Onsite, and Offsite Emergency Plans in the EIA report.

21. The estimated project cost is Rs. 182.41 crore including existing investment of Rs. 129.26 crore Total Employment will be 551 persons as direct & 750 persons indirect after expansion.

22. **Deliberations by the EAC:**

During deliberations, EAC discussed the following issues:

- The Committee noted that the instant proposal was submitted under 7 (ii) of EIA Notification 2006 as per OM dated 11.04.2022. It was noted that as per OM dated 11.04.2022, PP has to fulfill the requirement of para (i to viii) of OM dated 11.04.2022. It was observed that PP has not complied with existing condition of the previous EC, which was reported by the Regional Office, Gandhi Nagar. Observations of RO are as given below:
    a) The green belt should be developed along the peripheral wall. The storm water drain should be cleaned all along its length and should be renovated wherever required.
    b) Fly ash should be managed properly at the site, as it was found spread outside its confinement.
    c) $CaCl_2$ plant should be taken up for maintenance at the earliest.
    d) Dust suppression system be installed at the unloading point (hopper) of lime stone.
    e) The filter press installed in $CaCl_2$ plant area should be strengthened at the site. Few of them were found in dilapidated condition.
    f) The hazardous waste stored should be sent to TSDF through manifest at the earliest and ventilation of the area should be improvised.
    g) Structural strengthening is required in the chlorination plant.
    h) Internal housekeeping should be strengthened in and around areas of ETP.

The Committee suggested to install sufficient capacity (150 MT) of Silo to store the fly ash at the project site. It was suggested to submit the compliance report on the above observations of RO. The Committee was of the view that the ATR on the partly complied point was not verified by the IRO. Therefore, the

same should be verified and should be recorded in the CCR by the IRO for further consideration of the proposal by EAC (Industry -3).

- PP has to submit break up of water balance considering monsoon and non-monsoon. Details of storm water management;
- Details of measures to be taken for chlorine scrubbers.

Accordingly, proposal was deferred for want of above additional information. Above all additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Agenda No. 84.14

Manufacturing of Specialty chemicals and Excipients" at Plot No. 540/21, Kadechur Industrial area, Yadagir Taluk & District, Karnataka State by M/s. Salicylates & Chemicals Pvt. Ltd - Consideration of Environmental Clearance

[Proposal No. IA/KA/IND3/486629/2024, F. No. IA-J-11011/117/2024-IA-II(I)]

1. The proposal is for Environmental Clearance to the Manufacturing of Specialty chemicals and Excipients" at Plot No. 540/21, Kadechur Industrial area, Yadagir Taluk & District, Karnataka State by M/s. Salicylates & Chemicals Pvt. Ltd.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) as general condition is also applicable as project falls within 5 Km radius of Interstate Boundary of Karnataka-Telangana Interstate Boundary (1.60 Km in S direction). Therefore, the proposal requires appraisal at central level by the sectoral EAC in the MOEF&CC.

3. The Standard ToR was issued by the Ministry, vide letter no IA-J-11011/117/2024-IA-II (I) dated 13.04.2024. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a Fresh EC case. The proposal is placed in this 84th EAC meeting held on 22.8.2024, wherein the PP along with accredited Consultant, M/s. AM Enviro Engineers, [Accreditation number **NABET/EIA/2326/RA 0306_Rev 01 valid till June 30, 2026**)] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. **Deliberations by the EAC:**

(i) The Committee noted that the Consultant submitted similar type of 3 proposals with same discrepancies. It was decided that the Consultant shall revise the EIA report by removing the following discrepancies and submit revised EIA report for appraisal:

- The Committee noted that PP submitted incomplete pretreatment scheme of industrial effluent. Accordingly, the Committee suggested that effluent treatment scheme to be revised. Treatment scheme should ensure to achieve water quality for CETP inlet norms.
- Revised water balance as per monsoon and non-monsoon season.
- Plant layout along with the details of greenbelt to be provided.
- Water consumption values / figures to be round off (decimal figures to be avoided).
- The Committee noted that details of air pollution control measures, water pollution control measures, Hazardous waste generation and its disposal plan etc. have not been incorporated in the Chapter 10 (EMP) of EIA report. Therefore, it was advised to the Consultant to comply with the TOR issued for preparation of EIA study and provide quantified measures to be taken for air pollution (utilities & process); wastewater management; Greenbelt Development; hazardous and solid waste management; Noise Environment; rainwater harvesting, greenbelt development plan, capital and recurring cost earmarked for EMP including CER; Post monitoring plan in Environment Management Plan chapter 10 of EIA report.
- Details of special effluent /Emission measurement device that have proposed to install.
- Please elaborate how does the proposed manufacturing technology compare with the Best Available Technology.

Accordingly, proposal was deferred for want of above additional information. Above all additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Agenda No. 84.15

Setting up of Greenfield Integrated Copper Plant of 10 LTPA with Fertilizer Plant of 16.5 LTPA located at Village Lunsapur & Lothpur, Amreli district, Gujarat by Indo Asia Copper Limited-Consideration of Environmental Clearance
[Proposal No.: IA/GJ/IND3/482191/2024, File No.: IA-J-11011/329/2023-IA-II(I)]

1. The proposal is for the Environmental Clearance to the Setting up of Greenfield Integrated Copper Plant of 10 LTPA with Fertilizer Plant of 16.5 LTPA located at Village Lunsapur & Lothpur, Amreli district, Gujarat by Indo Asia Copper Limited.

2. The project/activity is covered under Category 'A' of item 3(a) - Metallurgical Industries (ferrous and non-ferrous), 5(a) Chemical Fertlizer industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended).

3. The standard ToR for obtaining prior Environmental Clearance has been issued by Ministry *vide* File No.: IA-J-11011/329/2023-IA-II(I) dated 10.9.2023. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a Fresh EC case. The proposal is placed in this 84th EAC meeting on 22.8.2024, wherein the PP along with accredited Consultant, M/s. Eco Chem Sales & Services (NABET Accreditation No.: NABET Registered NABET/EIA/2326/RA 0292 and it is valid upto 15th March 2026] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that Proposed project will be developed on 16,15,800 m^2 area and no R& R is involved in the Project. The details of products to be manufactured are as follows:

Particulars	CAS No.	Type of product	Quantity
Copper Cathode/ CCR Wire Rod	7440-50-8	Product	10,00,000 TPA
Fertiliser (DAP and NPK) Plants	DAP: 7783-28-0 NPK: 66455-26-3	Co-product	16,50,000 TPA
Precious Metals	Gold: 7440-57-5 Silver: 7440-22-4 Selenium: 7782-49-2	Co-product	Gold-5.88 TPA, Silver-58.2 TPA & Selenium: 216 TPA
Sulphuric Acid	7664-93-9	Co-product	23,00,000 TPA (Saleable – 3,42,500 TPA)
Phosphoric Acid	7664-38-2	Co-product	6,75,000 TPA
Fluoro-silicic acid	16961-83-4	Co-product	26,000 TPA
Granulated Phospho-gypsum	10101-41-4	Co-product	2,00,000 TPA
GFRG Panels	-	Co-product	9 Million Sq. m
Cu to Liberator cells & others	7440-50-8	Co-product	9667 TPA

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under the E(P) Act/Air Act/Water Act

6. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger / Elephant Reserves, Wildlife Corridors etc., within 10 km distance from the project site. River Dhatarvadi Nadi is flowing at a distance of 2.15 km in S direction and Raydi Nadi is flowing at a distance of 4.0 km in WSW direction. Five Number of Schedule-I species are found in 10 km of radius of the project site and Conservation Plan for the same has been approved by Chief Wildlife Warden of Gujarat vide letter dated 20.5.2024.

7. The PP reported that Ambient air quality monitoring was carried out at 09 locations during 1st October 2022 to 31st December 2022 and the baseline data indicates the ranges of concentrations as: PM_{10} (54.0 – 95.0 µg/m^3), $PM_{2.5}$ (33.0 –57.0 µg/m^3), SO_2 (6.2 – 22.8 µg/m^3) and NO_X (11.4 – 29.3µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs for the proposed project would be0.88µg/m^3, 2.17µg/m^3, and 0.97µg/$m^3$with respect to PM_{10}, SO_X, and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

8. The PP reported that the water requirement for the proposed project is estimated as 33,200 m^3/day (including copper plant) which will be obtained from Gujarat Water Infrastructure Limited (GWIL). Industrial Effluent of 5772 KLD quantity (including copper plant) will be treated in ETP& RO and treated water will be reused in process and cooling tower. Domestic sewage (800 KLD) will be treated in STP Plant and treated water will be utilized in gardening purpose. The plant will be based on Zero Liquid Discharge system.

9. The power requirement for the proposed project is estimated as 274 MW, out of which 250MW will be obtained from the nearby Switchyard at Rajula of GETCO and 24 MW will be in-plant generation from

WHRB-BPTG.04 nos. of 4 MVA each DG sets will be used as standby during power failure. Stack of 30 m will be provided as per CPCB norms to the proposed DG sets.

10. Internal power generation will be 24 MW through 2x12 MW waste heat recovery boiler (WHRB). Smelting furnace off gases are cooled in the Waste heat boiler. The waste heat boiler produces saturated steam at about 60 bar (g) pressure.

11. Natural Gas – 1,39,16,000 Nm3/yr, LPG – 34,500 TPA, Fuel oil (LSHS) -18,500 KL/yr, HSD – 1,650 KL/yr

12. **Details of Process Emissions Generation and its Management:**

SN.	Unit	Pollution Source	Details of APC	Design Limit
1.	Convertor and Anode & scrap melting Furnace area	• Stack emissions • Centralized Plant de-dusting	• Bag Filter based DE system. • FGD System	PM <30mg/Nm^3 SO_2<150 ppm
2.	Sulphuric Acid Plant	• Stack Emissions • Acid Mist	• Electrostatic Precipitator (ESP) • FGD System	PM <30mg/Nm^3. SO_2< 1kg/t of 100% H_2SO_4
3.	Refinery Area	• Plant/Area de-dusting area • Waste Flue Gas	• Electrostatic Precipitator (ESP) for dusts • FGD System • Low NOx burner	PM <30mg/Nm^3. SO_2< 150 ppm NOx< 50 ppm
4.	Precious Metal Recovery Plant	• Plant/Area de-dusting area • Waste Flue Gas	• Electrostatic Precipitator (ESP) for dusts • FGD System • Low NOx burner	PM <30mg/Nm^3. SO_2< 100 ppm NOx< 15 ppm
5.	Rock Grinding Plant	• Plant/Area de-dusting area	• Cyclone separator • Bag filter based dedusting system	PM <30mg/Nm^3.
6.	Phosphoric Acid Plant	• Stack Emissions • Acid Mist	• 3 stage Fluoride scrubber with additional fluoride recovery	PM <30mg/Nm^3. HF<15 mg/Nm^3
7.	DAP Plant	• Stack Emissions	• Cyclone separator with Multistage venturi scrubber	PM <30mg/Nm^3. NH_3< 70mg/Nm^3
8.	NPK Plant	• Stack Emissions	• Cyclone separator with Multistage venturi scrubber	PM <30mg/Nm^3. HF<7.5 mg/Nm^3 NH_3< 70mg/Nm^3
9.	Granulated PG Plant	• Stack Emissions	• Cyclone separator with single stage scrubber	PM <30mg/Nm^3. HF<15 mg/Nm^3

SN.	Unit	Pollution Source	Details of APC	Design Limit
10.	GFRG Plant	• Stack Emissions	• Cyclone separator with single stage scrubber	PM <30mg/Nm^3. HF<15 mg/Nm^3

13. Details of Solid waste/ Hazardous waste generation and its management:

Sn.	Name of waste	Source	Type of waste	Generation (in TPA)	Disposal (in TPA)		Measure for disposal
					Recycled/ reused	Sold	
1.	Granulated Slag	Smelter & Converter	ISW	1635600	-	1635600	Stored in slag dump & sold to secondary users
2.	Phospho-Gypsum	Phosphoric Acid plant	ISW	3037500	-	3037500	Stored in Gypsum Pond & Sold to Cement plants
3.	ETP waste sludge	Effluent Treatment plant	HW	266986	-	266986	sent to SLF.
4.	Arsenic bearing sludge	ETP for treatment of Effluents of GCP of SAP, Refinery, scrubber of smelter secondary GCP & bleed from slag granulation pond.	HW	4934	-	4934	sent to SLF.
5.	Used oil	Plant machinery	HW	154 [160 KL/y]	-	154 [160 KL/y]	Recycled within plant/sold to authorised recyclers Disposed to SPCB authorized recyclers.
6.	Oily sludge	Plant machinery	HW	40	-	40	Sold to authorised recyclers or disposed to authorized solid and liquid disposal companies.
7.	Spent catalyst	Sulphuric acid plant	HW	804 [240 KL/y]	-	804 [240 KL/y]	Stored in SLF or will be disposed/ sold to catalyst manufacturer.
8.	Spent resin from DM, RO & refinery plant	DM plant, RO plant & Copper refinery	HW	19 [24 KL/y]	-	19 [24 KL/y]	Stored in SLF or will be disposed/ sold to authorized manufacturer.
9.	Municipal waste	Canteen, offices, etc.	MSW	48	48	-	Composting for canteen wastes
10.	Plastic bags (HDPE)	Canteen, offices	PW	3	-	3	As per PWM2016: Sold for Co-processing, recycling & reuse

Sn.	Name of waste	Source	Type of waste	Generation (in TPA)	Disposal (in TPA)		Measure for disposal
					Recycled/ reused	Sold	
11.	E-waste (Cables, LED bulbs, etc.)	Plant premises	EW	3	-	3	Sent to registered recyclers/ vendors
12.	Waste batteries	Trucks/ vehicles	BW	0.5	-	0.5	Sent to registered recyclers/ vendors
			Total	**4946091**	**48**	**4946043**	**100% waste disposal**
Note: ISW – Industrial Solid waste (non-hazardous) , HW – Hazardous waste , MSW – Municipal Solid waste, PW- -Plastic waste, EW – e-waste, BW – Batteries waste							

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹. 1302.05 Crores (capital) and the Recurring Cost (operation and maintenance) will be about ₹. 21.8Crores per Annum. Industry proposes to allocate Rs. 15.00 Crores towards Corporate Environment Responsibility.

Sl.no	Description of Item	CAPITAL COST (in Rs. Lakhs)	RECURRING COST (in Rs. Lakhs)
1.	**Air & Noise pollution management**		
	a) Air Pollution Control Measures (FGD, ESP, GCP)	30800	320
	b) Noise Management (Ear muffs, PPEs, etc.)	11.3	1.1
2.	**Water pollution management**		
	a) Wastewater Pollution Control Measures (ETP, WTP, STP etc.)	14200	545
3.	**Solid waste management**		
	a) Measures for management of solid wastes (SLF)	1425	1020
	Waste-to-wealth facilities (PMRP, GFRG plant, GPG plant)		
	b) PMRP	16200	13.2
	c) GFRG plant	58500	0.31
	d) GPG plant	1200	12.1
4.	**Safety & OHC**		
	a) Setting up and operating of OHC	95	34
	b) Safety shoes, heat resistant PPEs, safety helmets etc.	41.2	4.10
5.	**Greenbelt**		
	a) Development of greenbelt within the plant	40.2	2.01
6.	**Other Environment management measures**		
	a) Rainwater harvesting	214	12
	b) Gas collection hood and energy conservation (WHB)	7250	0
7.	**Environmental Monitoring and Management**		
	a) CAAQMS installation & operation	96	9.6
	b) OCEMS installation in Stacks	132	13.2

	c)	Regular environmental monitoring in and around the project site	0	193
		Total (in Lakhs)	**130204.5**	**2179.6**
		In Crores	**~1302.05 Cr**	**~21.8 Cr**

15. Industry will develop greenbelt in an area of 33.27 % i.e., 5,37,400 m^2 out of total area of the project.

16. The PP reported that the Public Hearing for the proposed project has been conducted by the Gujarat Pollution Control Board on 13/03/2024 at 11:00 AM ~~hrs.~~ at Open Plot at Survey No. 41 Near Vanko Baval Chokdi, Village Lothpur, Taluka Jafrabad, District: Amreli, Gujarat. The main issues raised during the public hearing are related to Employment of locals, Skill development for local youth, air and water pollution, Solid waste disposal, GreenBelt development etc.

Sl. No.	Issue Raised	Commitment made by Project Proponent	Action Plane with Time-frame & Budget
1	Employment of locals	❖ ~2500 people (mostly local people) will be employed during the plant's construction ❖ ~2700 people will be employed during the plant's operation ❖ Preference will be given to locals, including women in employment depending on their qualifications. IACL would try that ~80% of those employed at the plant are locals	-
2	Loss of Livelihood	❖ Preference in employment will be given to land losers. ❖ Since the proposed plant will not cause any marine pollution, livelihood of those dependent on fishing & allied activities will not be affected	-
3	CSR Activities	❖ For the social upliftment of nearby villages, development as per the requirement of villages will be done through the setting up of a committee of village Sarpanchs and accordingly funds will be allotted through CER & CSR.	IACL will spend Rs. 15 Crores over 7 years after commissioning of the plant
4	Skill development for local youth	❖ Once the project starts IACL will set up two Skill Development Centres for training local youth	As part of IACL's 7 year CSR programme 2 such centres would be set up in the 3rd & 6th year at cost of Rs. 1 crore each
5	Air Pollution	The plant will have the latest technology to control pollution especially sulphur-di-oxide pollution. ❖ Double contact technology will be used to ensure maximum capture of SO_2 and conversion to sulphuric acid. The sulphuric acid will be utilized	➢ IACL will invest Rs. 308 Crores towards air pollution control

		entirely within the plant for manufacture of fertilizers ❖ After SO_2 absorption, smelter gases will be further routed through wet scrubber using caustic to remove residual SO_2. ❖ There shall be equipment for control of particulate matter also.	eqpt. / systems' installation. ➢ IACL will spend Rs. 3.2 crores annually towards operation of air pollution control eqpt. / systems
6	Water Pollution incl. sea water pollution	❖ The plant will operate on Zero Liquid Discharge (ZLD) basis. All effluents generated at the plant will be treated and utilized in the plant. ❖ The plant is well away from the sea coast or any tidal creek. No effluents will be discharged to the sea or any creek. Therefore, no Coastal Regulation Zone will be affected.	➢ IACL will spend Rs.142 Crores towards installation of water pollution control systems ➢ IACL will spend Rs. 5.45 crores annually towards operation of water pollution control systems
7	Damage to horticulture crops	Since the plant will not cause any air pollution or any effluents will be discharged outside the plant, damage to horticulture crops shall not occur	-
8	Solid waste disposal	❖ Almost the entire quantity of solid wastes generated at the plant will be utilized for manufacturing other products in the plant itself or sold off to downstream users or handed over to authorized recyclers. ❖ Any unsold waste will be dumped in a Secured Land Fill (SLF) located inside the plant. ❖ The SLF will be constructed and operated as per CPCB's specifications / guidelines so that there is no contamination of ground water or soil or any odour pollution	❖ Rs.759.0 Crores will be spent for setting up units for manufacturing other products from wastes ❖ Rs.14.25 Crores will be invested for setting up SLF. ❖ Rs.10.2 Crores /yr. will be spent towards operation of SLF
9	Depletion of scarce fresh water	❖ GWIL shall supply water for the plant from Narmada River through pipeline. Necessary paperwork for water supply by GWIL is under progress. ❖ The plant shall not draw any ground water or water from any nearby river ❖ IACL is also exploring other sources of water required after plant commissioning during	-

		operational stage from other companies, for which MoU (s) / Agreement(s) shall be made	
10	Protection for Schedule I Fauna incl. Asiatic Lions	Site Specific Wildlife Conservation Plan has been prepared and submitted to Forest Department for approval. Measures suggested in Approved Site Specific Wildlife Conservation Plan shall be implemented as per responsibility matrix.	Proposed outlay: Rs. 11.20 crores.
11	Green Belt	53.74 Ha (i.e. 33% of the plant area) shall be earmarked for green belt & plantations.	~134000 trees will be planted over the 1st 3 years at cost of Rs.40.2 lakhs. ~Rs. 2 Lakhs shall be spent every year for green belt maintenance
12	Noise pollution	❖ The plant shall be designed to minimise noise propagation beyond plant boundaries. ❖ Workers shall be provided with appropriate Personal Protective Eqpt. to reduce noise exposure	Initial expenditure: Rs.11.3 lakhs. Recurring expense: Rs.1.1 lakhs/ yr.
13	Possible rise in ambient temperatures due to the plant	The plant's operations shall not lead to increase in ambient temperatures in the area	-
14	Possibility of exposure to radioactivity due to use of radioactive raw materials.	No radio-active raw materials will be used at the proposed plant	-
15	Health impacts of proposed plant	❖ The plant will not use any carcinogenic elements. ❖ CER fund will be allocated for the health care facilities and IACL will form a committee for the same. The CER fund will be spent as per requirement of your village according CC to Notification of MoEFCC.	❖ As part of its 7 year CSR programme, IACL will spend Rs. 3 Crores towards upgradation of infrastructure at local Health Centres

17. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment Officer for the functioning of EMC.

18. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

19. The estimated project cost is Rs. 15,689Crores (including copper plant). Total Employment will be 1200 Nos. of persons as direct and 1500 Nos. of persons as indirect.

20. **Deliberations by the EAC**

During deliberations, EAC desired the following additional information:

i. PP informed that Land use as per record

Agricultural Land	156.35 Ha	Private (96.76%)	
Waste Land	5.19 Ha	Govt. (3.21%)	

Ownership Details	
Private Land	161.58 Ha
Ownership	• Registered – 37.5% • Agreement for Sale – 3.2% • Consent Letters – 52.6% • Govt. Land – 3.21%

The Committee suggested that PP shall share the supporting documents.

ii. Since 96 % of land is private in nature, PP to submit affidavit stating no R& R is involved in the project proposal.

iii. Sulphuric acid plant shall be designed as per CPCB guidelines.

iv. Revised water balance details (considering Monsoon- Non monsoon season). Rainwater collection and utilisation details.

v. Revise the domestic water consumption based on commercial/industrial space requirement. Accordingly, quantify the sewage generation and STP treatment capacity as well as water requirement from treated sewage for horticulture purpose/ greenbelt.

vi. Details of generation of unitwise wastewater need to be submit for fertiliser unit. Generation of wastewater from fertilizer units needs to be verified as in general, wastewater from the DAP fertiliser is recycled within the process.

vii. Details of environmental safe guards for gypsum pond and gypsum yard.

viii. Basis of calculation for size of secured landfill site and provide site suitability as per CPCB criteria for SLFs.

ix. Information related to baseline study for landfill site has not been furnished such which includes subsurface aquifer flow; Ground water characteristics at different water table depth; permeability coefficient of sub soil; bearing capacity of sub soil etc.

x. Details of Piezometers to be installed at upstream side and downstream side of the secured landfill site. Details of Monitoring plan and post closure plan.

xi. Life of secured landfill site to be estimated based on available land area and waste generation. Details of secured landfill design to be furnished include closure plan as well as draining plan, leachate treatment plan.

xii. During EAC meeting, PP informed that more 253 public had joined the hearing. However, 38 persons raised the issues and 90 have submitted written representations. Therefore, point wise reply to the issues raised in the written representation of public to be submitted by PP.

xiii. Affidavit stating EIA study conducted as per ToR.
xiv. 1% of project cost to be earmarked for CER
xv. Carbon sequestration action plan to be submitted.
xvi. Agreement with Cement Industry for sending gypsum.
xvii. PP has to furnish copy of the application for obtaining water permission for 10,733 KLD for fertilizer plant.

Accordingly, proposal was deferred for want of above additional information. Above all additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Agenda No. 84.16

Proposed Pesticides technical & Pesticide Intermediates (2000.1 MT/Month) in Existing Synthetic Organic Chemicals Manufacturing Unit at Plot No. D-2-CH-75, GIDC Estate, Dahej-II-392130, Dist. - Bharuch, Gujarat, India by M/s. Zorbac Pharma LLP- Consideration of EC

[Proposal No. IA/GJ/IND3/485421/2024; File No.: IA-J-11011/85/2024-IA-II(I)]

1. The proposal is for Environmental Clearance to the Proposed Pesticides technical & Pesticide Intermediates (2000.1 MT/Month) in Existing Synthetic Organic Chemicals Manufacturing Unit at Plot No. D-2-CH-75, GIDC Estate, Dahej-II-392130, Dist. - Bharuch, Gujarat, India by M/s. Zorbac Pharma LLP.

2. The project/activity is covered under Category 'A' of item 5 (f)-Synthetic organic chemicals, 5(b) Pesticides Industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended).

3. The Ministry issued the Standard ToR, vide letter no. No. : **J-11011/85/2024-IA-II(I)** dated **11th April, 2024.** The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is an Expansion case. The proposal is placed in this 84th EAC meeting held on 22.8.2024 wherein the PP along with accredited Consultant, M/s. Aqua-Air Environmental Engineers Pvt. Ltd. (NABET Accreditation No.: **NABET/EIA/2023/SA 0196_Rev.01 Valid up to 8th April, 2024 (Extension of Validity of Accreditation till October 07, 2024**] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that Existing land area is 10000.0 m^2, no additional land will be used for proposed expansion and no R& R is involved in the Project. The details of products to be manufactured are as follows:

Sr. No.	**Name of Products**	**CAS No.**	**Production Quantity [MT/Month]**				***End use of the Product / Remarks**
			Existing	**Removal of Existing product**	**proposed**	**Total After Expansion**	
Existing: Group A [API]							
1	Ibuprofen	15687-27-1	**50 [Sr. No. 1 to 3]**	**-50 [Sr. No. 1 to 3]**	**0.0**	**0.0**	Removed After EC Expansion
2	Aspirin	50-78-2					
3	Diclofenac Sodium	15307-86-5					
4	Dolutegravir	1051375-16-6	**50 [Sr. No. 4 to 20]**	**-50 [Sr. No. 4 to 20]**	**0.0**	**0.0**	Removed After EC Expansion
5	Acyclovir	59277-89-3					
6	Valacyclovir	124832-27-5					
7	Tenofovir	147127-20-6					
8	Efavirenz	154598-52-4					
9	Levetiracetam	102767-28-2					
10	Lamivudine	134678-17-4					
11	Guifenesin	93-14-1					
12	Gabapentin	60142-96-3					
13	Chlorpheniramine Maleate	113-92-8					
14	Metronidazole	443-48-1					
15	Naproxen sodium	26159-34-2					
16	4-Aminosalicylic acid	65-49-6					
17	Ibuprofen Sodium	31121-93-4					
18	Lidocaine hydrochloride	6108-05-0					
19	Tranexamic Acid	1197-18-8					

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
20	Phenyramidol hydrochloride	326-43-2					
21	Ibuprofen Lysinate	57469-77-9	**30 [Sr. No. 21 to 33]**	**-30 [Sr. No. 21 to 33]**	**0.0**	**0.0**	Removed After EC Expansion
22	Mesalmine/Mesalazine	89-57-6					
23	Aceclofenac	89796-99-6					
24	Albendazole	54965-21-8					
25	Ambroxol hydrochloride	23828-92-4					
26	Trazodone	19794-93-5					
27	Pregabalin	148553-50-8					
28	Omeprazole	73590-58-6					
29	Esomeprazole	119141-88-7					
30	Pantoprazole sodium	138786-67-1					
31	Rabeprazole	117976-90-6					
32	Lansoprazole	103577-45-3					
33	Fluconazole	86386-73-4					
34	Dexibuprofen	51146-56-6	**20 [Sr. No. 34 to 79]**	**-20 [Sr. No. 34 to 79]**	**0.0**	**0.0**	Removed After EC Expansion
35	Telmisartan	144701-48-4					
36	Losartan	114798-26-4					
37	Valsartan	137862-53-4					
38	Olmisartan	144689-63-4					
39	Candesartan cilexetil	145040-37-5					
40	Irbesartan	138402-11-6					
41	Mebeverin hydrochloride	2753-45-9					
42	Verapamil hydrochloride	152-11-4					
43	Drotaverin hydrochloride	985-12-6					
44	Lisinopril	83915-83-7					

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
45	Ramipril	87333-19-5					
46	Atorvastatin calcium	134523-03-8					
47	Rosuvastatin calcium	147098-20-2					
48	Venlafaxin hydrochloride	99300-78-4					
49	Phenylephrin hydrochloride	61-76-7					
50	Lamotrigine	84057-84-1					
51	Labetalol hydrochloride	32780-64-6					
52	Cetrizine hydrochloride	83881-52-1					
53	Levocetrizine hydrochloride	130018-77-8					
54	Vitamin D3	67-97-0					
55	Terbinafine hydrochloride	78628-80-5					
56	Minoxidil	38304-91-5					
57	Sertaline hydrochloride	79559-97-0					
58	Sugammadex sodium	343306-79-6					
59	Apixaban	503612-47-3					
60	Tofacitinib	477600-75-2					
61	Teneligliptin HBr	1572583-29-9					
62	Lidocaine base	137-58-6					
63	Benzocaine	94-09-7					
64	Procaine	59-46-1					
65	Articaine	23964-57-0					
66	Prilocaine hydrochloride	1786-81-8					
67	Prilocaine base	721-50-6					
68	Bupivacaine hydrochloride	18010-40-7					
69	Ropivacaine hydrochloride	132112-35-7					

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
70	Tetracaine hydrochloride	136-47-0					
71	Cinchocaine hydrochloride	61-12-1					
72	Meloxicam	71125-38-7					
73	Piroxicam	36322-90-4					
74	Lornoxicam	70374-39-9					
75	Piroxicam Betacyclodextrin	96684-39-8					
76	Sodium Picosulphate	1307301-38-7					
77	Bisacodyl	603-50-9					
78	Alendronate Sodium	121268-17-5					
79	Montelukast Sodium	151767-02-1					
Existing: Group B Intermediates							
80	Isobutyl acetophenone	38861-78-8	**50 [Sr. No. 80 to 88]**	**0.0**	**0.0**	**50 [Sr. No. 80 to 88]**	Used as Pharma Intermediates
81	1-(2,6-Dichlorophenyl)-2- indolinone	15307-86-05					
82	Try amino pyrimidine sulphate	35011-47-3					
83	(2S)-2-amino butanamide Hydrochloride	7682-20-4					
84	1,1-Cyclohexane diacetic acid	4355-11-7					
85	3,4-Dimethoxy benzoic Acid (Veratric Acid)	93-07-2					
86	Para Amino Benzoic Acid	150-13-0					
87	Guanine	73-40-5					Removed After EC Expansion
88	Adenine	73-24-5					
89	1-(2,2-Dimethoxy ethyl)-1,4-dihydro-3-methoxy-4-oxo-2,5-pyridine dicarboxylic acid 2-methyl ester	1335210-23-5	**25 [Sr. No. 89 to 97]**	**0.0**	**0.0**	**25 [Sr. No. 89 to 97]**	Used as Pharma Intermediates
90	(S)-1-(2-Amino-5-chlorophenyl)-1-	209414-27-7					

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
	(trifluoromethyl)-3-cyclopropyl-2-propyn-1-ol						
91	(S)-5-Chloro-alpha-(cyclopropylacetenyl)-2-[((4-Methoxy phenyl) methyl) amino]-alpha-(trifluoromethyl) benzene methanol	173676-60-3					
92	(1R,2S,5R)-Menthyl-(2R,5S)-5-(4-amino-2-oxo-2H-pyrimidin-1-yl)-[1,3] oxathiolane-2-carboxylic acid	147027-10-9					
93	2-Amino-3,5-Dibromo benzaldehyde	50910-55-9					
94	Trans-4-Amino cyclohexanol	27489-62-9					
95	(3,4-Dimethoxy phenyl) acetonitrile	97-17-4					
96	Denatonium Benzoate	3734-33-6					
97	4-(Aminomethyl) Benzoic Acid	56-91-7					
98	1-(3-Chlorophenyl)-4-(3-chloropropyl) piperazine hydrochloride	52605-52-4	**10 [Sr. No. 98 to 135]**	**-10 [Sr. No. 98 to 135]**	**0.0**	**0.0**	Removed After EC Expansion
99	(R)-(-)-3-(2-Amino-2-oxo ethyl)-5-methyl hexanoic acid	181289-33-8					
100	2-Chloromethyl-4-methoxy- 3,5-dimethylpyridine hydrochloride	86604-75-3					
101	5-Methoxy-Mercapto Benzimidazole	37052-78-1					
102	5-Difluromethoxy-2-Mercapto Benzimidazole	97963-62-7					

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
103	5-Difluoromethoxy-2-{[(3,4-dimethoxy-2-pyridinyl) methyl] thio}-1H-benzimidazole	102625-64-9					
104	2-Chloromethyl 3,4-Dimethoxy Pyridine HCl	72830-09-2					
105	2-Mercapto Benzimidazole	583-39-1					
106	2-Chloromethoxy-4-(3-Methoxy Propoxy)-3-Methyl Pyridine	153259-31-5					
107	2-[[[4-(3-Methoxy Propoxy)-3-Methyl Pyridine-2-yl] Methyl] Thio]-1H-Benzimidazole	117977-21-6					
108	[1,1'-Biphenyl]-2-carbonitrile,4'-[(1,4'-dimethyl -2'-propyl [2,6"-bi-1H-benzimidazole] -1'-yl) methyl] – (1,1-biphenyl)-2-carbonitrile	144702-27-2					
109	Methyl 4'-bromomethyl biphenyl-2-carboxylate	114772-38-2					
110	2-n-propyl-4-methyl-6-(1-Methyl benzimidazole-2-yl) benzimidazole	152628-02-9					
111	2n-Butyl-4-chloro-[1-(2'-Cyanobiphenyl -4-yl) methyl]-5-(hydroxymethyl)-imidazole	114772-55-3					
112	5-(4'-Bromomethyl-1, 1'-biphenyl-2-yl)-1-triphenylmethyl-1H-tetrazole (TTBB)	124750-51-2					

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
113	2-Butyl 4-Chloro 5-Formyl Imidazole	83857-96-9					
114	4-(1-Hydroxy-1-methylethyl)-2-propyl-1- [[2'-[(triphenylmethyl)-1H-tetrazol-5-yl] [1,1'-biphenyl]-4-yl] methyl]-1H-imidazole-5-carboxylic acid ethyl ester)	144690-33-5					
115	5-Methoxy – 2-oxo-1,3-dioxol - 4 - yl) methyl - 4 - (1-hydroxy -1 - methylethyl -2 propyl-1-(2 – (2-triphenylmethyl) -2H – tetrazole -5 – yl) biphenyl - 4-yl) methyl) -1H-imidazole – 5 – carboxylate	144690-92-6					
116	Methyl 1- [(2'-cyanobiphenyl-4-yl) methyl]-2-ethoxy-1H-benzimidazole-7-carboxylate	139481-44-0					
117	Ethyl 2-ethoxy-1- [(2'-cyanobiphenyl-4-yl) methyl]-1H-benzimidazole-7-carboxylate	139481-41-7					
118	N- [(2'-Cyanobiphenyl-4-methyl)-(L)-Valine methyl ester Hydrochloride	482577-59-3					
119	4'- [(2-Butyl-4-oxo-1,3-	138401-24-8					

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
	Diazaspiro [4.4] non-1-en-3-yl) methyl] biphenyl-2-carbonitrile						
120	tert-Butyl (4R,6R)-2-[[[6-(2-4-fluorophenyl)-5-isopropyl-3-phenyl-4-(phenylcarbamoyl)pyrrol-1-yl] ethyl]-2,2-dimethyl-1,3-dioxan-4-yl] acetate	125971-95-1					
121	(4R,6R)-tert-Butyl-6-(2-aminoethyl)-2,2-dimethyl-1,3-dioxane-4-acetate	125995-13-3					
122	Methyl 4-(4-fluorophenyl)-6-isopropyl-2- [(N-methyl-N-methylsulfonyl) amino] pyrim idine-5-carboxylate	289042-11-1					
123	tert-Butyl 6-[(1E)-2-[4-(4-fluorophenyl)-6-(1-methylethyl)-2-[methyl(methylsulfonyl)ami no]-5-pyrimidinyl] ethenyl]-2,2-dimethyl-1,3-dioxane-4-acetate	289042-12-2					
124	1- [Cyano- (p-methoxyphenyl) methyl] cycl ohexanol	93413-76-4					
125	1- [2-Amino-1-(4-	149289-31-6					

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
	Methoxy phenyl) ethyl] cyclohexanol						
126	2,3-Dichloro benzoylcyanide	77668-42-9					
127	5-Chloroacetyl salicylamide	33254-88-5					
128	1-(4-Chloro benzhydryl) piperazine	303-26-4					
129	2-Amino, 5-methyl thiazole	7305-71-7					
130	4-Hydroxy, 2-methyl, 2h,1,2-benzothiazine carboxylic acid isopropyl ester-1,1-dioxide	118854-48-1					
131	4-Hydroxy, 2-methyl, 2h,1,2-benzothiazine carboxylic acid methyl ester-1,1-dioxide	35511-15-0					
132	Chloro acetyl Xylidine	1131-01-7					
133	2-(2-(3-(S) -(3-(2-(7-Chloro-2-quinolinyl)-ethenyl) phenyl-3-methane sulphonyloxypropyl) pehenyl)-2-propanol	142569-70-8					
134	1-(Mercaptomethyl)-cyclopropane acetic acid	162515-68-6					
135	Denatonium Saccharate	90823-38-4					
136	3-Morpholino-1-(4-(2-oxopiperidin-1-yl)5,6-dihydropyridin-2(1h)-one	545445-44-1	**5 [Sr. No. 136 to 144]**	**-5 [Sr. No. 136 to 144]**	**0.0**	**0.0**	Removed After EC Expansion
137	z-Ethyl-2-chloro-2-(2-(4-methoxyphenyl) hydrazono) acetate	27143-07-3					
138	4-Chloro-7-tosyl-7h-pyrrolo[2,3-d] pyrimidine	479633-63-1					
139	Bis (3R, 4R) - (1- benzyl – 4 methyl - pipeidine - 3yl)	477600-70-7					

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
	methylamine di - toluoyl - L -tartaric acid						
140	[(2S)-1-tert-butoxycarbonyl-4- oxo-2-pyrrolidinyl carbonyl]-1,3-thiazolidine	401564-36-1					
141	1-(3-methyl-1-phenyl-5-pyrazolyl)- piperazine)	401566-79-8					
142	6-Chloro 4-Hydroxy 2-Methyl 2H-Thieno [2,3, e] [1,2] thiazine-3-Carboxylate 1,1-dioxide	70415-50-8					
143	4,4'-(2-Pyridinylmethylene) bisphenol	603-41-8					
144	3-Amino-4-methyl-2-thiophen carboxylic acid methyl ester	85006-31-1					
145	Basic cromium sulphate	15244-38-9	**15**	**0.0**	**0.0**	**15**	Analgesic
Existing: Group C API							
146	Fusidic Acid	6990-06-3	**2**	**-2**	**0.0**	**0.0**	Removed After EC Expansion
147	Vancomycine	1404-90-6	**5**	**-5**	**0.0**	**0.0**	
148	Mupirocine	12650-69-0	**3**	**-3**	**0.0**	**0.0**	
149	Seratiopaptidase	70851-98-8	**5**	**-5**	**0.0**	**0.0**	
150	Mycophenolate	24280-93-1	**10**	**-10**	**0.0**	**0.0**	
Proposed: Group A Insecticides							
1	Lambdacyhalothrin Technical 84% min.	91465-08-6	**0.0**	**0.0**	**850 [Sr. No. 1 to 26]**	**850 [Sr. No. 1 to 26]**	It is used for plant protection purposes as a non-systemic broad-spectrum insecticide in a wide range of crops worldwide.
2	Acetamipride Technical	135410-20-7					It is used to control insects such as aphids, which have been known to attack and damage leafy plants.

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
3	Bifenthrin Technical	82657-04-3					It is used as a broad-spectrum insecticide.
4	Buprofezin Technical	69327-76-0					It is used as insect growth regulator that is effective against insects that suck plant sap, such as whiteflies.
5	Chlorantraniliprole Technical 93.00% w/w minium for	500008-45-7					It is used to controls moth and butterfly caterpillars (larvae).
6	Chlorpyriphos Technical	2921-88-2					It is used to control foliage and soil-borne insect pests.
7	Cyantraniliprole Technical	736994-63-1					It is used as insecticide for the control of whitefly, thrips, aphids, fruit flies, and fruit worms in crops such as onions, potatoes and tomatoes.
8	Diflubenzuron Technical	35367-38-5					It is used to control many leaf eating larvae of insects feeding on agricultural, forest and ornamental plants.
9	Dimethoate Technical 85% w/w	60-51-5					It is used in preparation of formulations used in the control of broad range of insect and mites.
10	Dinotefuran Technical 97% min. for	165252-70-0					It is used to control of insect pests such as aphids, whiteflies, thrips, leafhoppers, leaf miners, sawflies, mole cricket, white grubs, lace bugs, billbugs, beetles, mealybugs, and cockroaches on leafy

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
							vegetables, in residential and commercial buildings, and for professional turf management.
11	Emamectin Technical	155569-91-8					It is used to control of Lepidopterans such as bollworms in cotton and fruit and shoot borers in okra.
12	Fenazaquin Technical	120928-09-8					It is a pesticide intended to control mites and insects.
13	Fenopathrin Technical	39515-41-8					It is used to control all type of bollworms and other pests in cotton and other crops.
14	Fipronil Technical	120068-37-3					It is used in granular turf products, seed treatments, topical pet care products, gel baits, liquid termiticides, and in agriculture.
15	Flonicamid Technical 96%	158062-67-0					It is used to control aphids, thrips and whitefly in a range of situations including glasshouses.
16	Fluxametamide Technical	928783-29-3					It can be used in agricultural crops, orchards, vineyards, and turf.
17	Imidacloprid Technical	138261-41-3					It is used to control sucking insects, termites, some soil insects, and fleas on pets.
18	Indoxacrab Technical	173584-44-6					It is used for the control of certain lepidopteran pests

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
							including the beet armyworm.
19	Methoxyfenozide Technical	161050-58-4					It is used to control various insects including moths and butterflies
20	Novaluron Technical	116714-46-6					It is used as growth regulator insecticide; used on ornamentals in greenhouses to control whiteflies, thrips, and leaf miners disrupts the normal growth and development of immature insects.
21	Profenophos Technical	41198-08-7					Used as insecticide and acaricide for cotton and vegetables, Control of insects (particularly Lepidopetera) and mites
22	Propoxur Technical	114-26-1					It is used to control ants, cockroaches, crickets, flies, mosquitoes, and crop insects.
23	Pymetrozine Technical 98% w/w min. for	123312-89-0					It is used to control of aphids and whiteflies in vegetables, ornamentals, cotton, field crops, deciduous and citrus fruit; control of plant hoppers in rice.
24	Pyriproxyfen Technical 98% w/w min. for	95737-68-1					It is used as insect growth regulator to control public health pests, used as an insecticide to protect tomato, eggplant, and cotton plants.

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
25	Thiamethoxam Technical 97% min.	153719-23-4					It is used as insecticide, seed treatment/ protectant.
26	Tolfenpyrad Technical	129558-76-5					It is used for the control of several orders of insects.
Proposed: Group B Herbicides							
27	Atrazine Technical 95% w/w	1912-24-9	**0.0**	**0.0**	**400 [Sr. No. 27 to 51]**	**400 [Sr. No. 27 to 51]**	It is used to kill weeds, primarily on farms, but has also been used on highway and railroad rights-of-way.
28	Penoxsulam Technical 98% Min for indigenous Manufacture	*219714-96-2*					It is used as A Foliar Spray on Dry-Seeded Rice Crops.
29	Ametryn Technical	834-12-8					It is used to destroy unwanted vegetation, especially various types of weeds, grasses (POACEAE), and woody plants.
30	Bispyribac Sodium Technical 95% w/w min. for	125401-75-4					It is used for the control of wide range of weeds, Herbicide.
31	Carfentrazone Technical	128639-02-1					It is used in agricultural settings to control broadleaf and sedge weeds in various grains and crops.
32	Clethodim Technical	99129-21-2					It is used to control of grassy weeds on a variety of broadleaved crops
33	Clodinofop Propargyl Technical	105512-06-9					It is widely used as an herbicide for the control of annual grass weeds in cereal crops
34	Clomazone Technical	81777-89-1					Herbicide to control broadleaf and annual grass in cotton, peas, pumpkins, soybeans, sweet potatoes,

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
							tobacco, winter Squash and fallow wheat fields.
35	Cloquintocet-Metxyl Technical	99607-70-2					It is used to control coarse annual grass of the family poaceae (gramineae).
36	Cloransulam Technical	147150-35-4					It is used for post-emergence control of broad-leaved weeds in soybeans
37	Cyhalofop-Butyl Technical	122008-85-9					It is used to control weeds in crops, such as wheat and corn.
38	Diclosulam Technical	145701-21-9					It is used as a broadleaf herbicide that is used to control weeds in soybean and peanut crops.
39	Halosulfuron Methyl Technical 97% Min.	100784-20-1					It is used to control broadleaf and cyperaceous weeds in graminaceous crops, such as wheat, maize, sugarcane, and rice.
40	Imazethapyr Technical	81335-77-5					It is used to control of wide variety of broad leaf weed species.
41	Mesotrine Technical	104206-82-8					It is pre-emergence and post emergence use for the selective control of annual broadleaf weeds.
42	Metribuzin Technical	21087-64-9					It is used to Selectively Control Certain Broadleaf Weeds and Grassy Weed Species
43	Pinoxaden Technical 95 % w/w Min.	243973-20-8					It is used for control of grass weeds in cereal crops.
44	Pretilachlor Technical	51218-49-6					It is used to control all types of weeds in rice.

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
45	Propanil Technical	709-98-8					It is a herbicide used for the treatment of numerous grasses and broad-leaved weeds in rice, potatoes, and wheat.
46	Propaquizafop Technical	111479-05-1					It is used as Systemic Herbicide for Annual and Perennial Grasses.
47	Pyrithiobac Sodium Technical	123343-16-8					It is widely used for post emergence control of broadleaf weeds in cotton.
48	Quizalofop-P-Ethyl Technical	100646-51-3					It is used to control annual and perennial grass weeds in potatoes, soybeans, sugar beets, peanuts, vegetables, cotton and flax, as well as other crops.
49	Sulfentrazone Technical 95 % w/w Min.	122836-35-5					It is used to control broadleaf and grass weed species in soybeans, sugarcane, tobacco, and several species of turf grass.
50	Tembotrione Technical	335104-84-2					It is used to control of a broad spectrum of broadleaf and grassy weeds in corn.
51	Topramezone Technical	210631-68-8					It is used to control for broad-leaved weeds and grasses used mainly on corn.
Proposed: Group C Fungicides							
52	Azoxystrobin Technical. 97% W/W	131860-33-8	**0.0**	**0.0**	**600 [Sr. No. 52 to 73]**	**600 [Sr. No. 52 to 73]**	It is used to protect crops from fungal diseases.
53	Boscalid Technical	188425–85–6					It is used as fungicide, plant health product,

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
							seed treatment / protectant.
54	Cyazofamide Technical	120116-88-3					It is used mainly for controlling Oomycete and Plasmodiophora diseases on potatoes and tomatoes.
55	Cymoxanil Technical	57966-95-7					It is used to control Peronosporales on a range of crops including vines, hops and potatoes.
56	Cyproconazole Technical	94361-06-5					It is used against powdery mildew, rust on cereals and apple scab, and applied by air or on the ground to cereal crops, coffee, sugar beet, fruit trees and grapes.
57	Difenconazole Technical 95 % w/w minium for	119446-68-3					It is activity used as a spray or seed treatment.
58	Dodine Technical	2439-10-3					It is used to control scab on apples, pears, and pecans, brown rot on peaches, and several foliar diseases of cherries, strawberries, peaches, sycamore trees, and black walnuts.
59	Diruon Technical	330-54-1					It is used mainly for general weed control on non-crop areas.
60	Dimethomorph Technical	110488-70-5					It is a systemic morpholine fungicide for use on potatoes.
61	Epoxiconazole Technical	106325-08-0					It is used to control of Black Sigatoka (Mycosphaerella fijiensis) and Yellow

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
							Sigatoka (Mycosphaerella musicola) in bananas and Coffee Rus.
62	Fluazinam Technical	79622-59-6					It help in fungicide rotation and help golf courses adhere to annual chlorothalonil use restrictions.
63	Hexaconazole Technical 92% Min. manufactured indigenously	79983-71-4					It is used to control fungi such as Ascomycetes and Basidiomycetes.
64	Kresoxim Methyle Technical	143390-89-0					It is used to control of scab and other fungal diseases on a wide range of crops.
65	Metalaxyl-M-Technical 94% Min.	70630-17-0					It is used to control Pythium in a number of vegetable crops.
66	Metiram Technical	9006-42-2					It is used to prevent crop damage in the field, during storage, or transport.
67	Picoxystrobin Technical 93%w/w Min	117428–22–5					It is used to control of various fungal diseases including leaf rust, stripe rust, powdery mildew, net blotch, scald and speckled leaf Blotch.
68	Propiconazole technical 88% w/w	60207-90-1					It is used to control fungal diseases.
69	Pyraclostrobin Technical	175013-18-0					It is used on the Residential and recreation al turf grass sites and golf course turf.
70	Tebuconazole Technical 95%w/w Min	593-50-0					It is used for agriculturally to Treat plant pathogenic fungicide

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
71	Thifluzamide Technical	130000-40-7					It is used to controls rice sheath blight, tomato early blight, and potato black scurf.
72	Trifloxystrobin Technical	141517-21-7					It is used as broad-spectrum fungicide for cereals, fruits, vegetables, and ornamentals, in farming as pesticides.
73	Tricyclazole Technical	41814-78-2					It is used inhibiting the synthesis of melanin, a pigment necessary for fungal growth and development.
Proposed: Group D Intermediates							
74	2-(Bromomethyl)-2-(2-Chloro-4-(4-Chlorophenoxy) Phenyl)-4-Methyl-1,3-Dioxolane	873012-43-2	**0.0**	**0.0**	**150 [Sr. No. 74 to 94]**	**150 [Sr. No. 74 to 94]**	It is used as agrointermediate of Difenoconazole.
75	3'-(Trifluoromethyl) Acetophenone	349-76-8					It is used as an intermediate of Trifloxystrobin and also used as Laboratory chemicals, Manufacture of substances.
76	2,3-Dichloro-5-(Trifluoromethyl)Pyridine (DCTP / DCTF)	69045-84-7					It is used as intermediate for the agrochemical industry in particular for use in the synthesis of fluazinam and fluopicolide as well as other pesticidal active pyridine compound.
77	2-Amino-4,6-Dimethoxypyrimindine (Admp)	36315-01-2					It is used as intermediate for the synthesis of sulfonylurea herbicides.

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
78	2,6-Dichloro Benzontrile	1194-65-6					It is used as herbicide.
79	2,6-Difluoro Benzamide (Dfba)	18063-03-1					It is used as intermediate for agrochemicals.
80	2-Chloro-5-Chloromethylpyridine	70258-18-3					It is used as intermediate for the synthesis of imidacloprid.
81	5 Chloro 8 Hdroxy quinoline	130-16-5					It is used as pesticide intermediate.
82	2,4 Di chloro phenoxy Acetic Acid	94-75-7					It is used as a selective herbicide that kills many terrestrial and aquatic broadleaf weeds.
83	2,5 Dichloro Phenol	583-78-8					It is used as a chemical intermediate for the herbicide 3, 6-dichloro-o-anisic acid.
84	3(2-Chloro propionyl aniline) propionic acid methyl ester	--					It is used as herbicide
85	3-(4-Chloro-2-Fluro-5-mercaptophenyl)-1-Methyl-6-trifluromethyl, H-pyrinidine-2-,4-dione	353292-92-9					It is used as herbicide
86	4,6-Dimethoxy-2-Methylsulfonyl Pyrimidine	113583-35-0					It is used as intermediate in the synthesis of herbicides and is used specifically as an intermediate in the preparation of herbicidal 7-[(4, 6-dimethoxypyrimidin-2-yl) thio]-3-methylnaphthalide.
87	2 chloro 5 chloro methyl thiazole	105827-91-6					It is synthetic intermediate used in the synthesis of Ritonavir, a second-

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
							generation anti-AIDS drug and a selective HIV protease inhibitor.
88	2-Amino-3-Chloro-5 (Trlfluoromethyl)Pyridine	79456-26-1					It is organic intermediate for the agrochemical industry in particular for use in the synthesis of fluazinam and fluopicolide as well as other pesticidal active pyridine compounds.
89	2-Hydroxy-3,5,6-Trichloropyridine	6515-38-4					It is used to destroy unwanted vegetation, especially various types of weeds, grasses, and woody plants.
90	2-Amino-5-Chloro-3-Iodopyridine	211308-81-5					It is used as synthetic intermediate, used to synthesize azaindole derivatives with antibacterial and antifungal activities.
91	2,6-Difluoroaniline	5509-65-9					It is used in the synthesis of: N-2, 6-difluorophenyl-5-methoxy-1,2,4-triazolo, pyrimidine-2-sulfonamide, herbicidal compound.
92	2-Amino-5-Fluoro-3-Nitopyridine	212268-12-7					It is used as an intermediate in the synthesis of various drugs, including anticancer agents and antiviral compounds.
93	2,4-Dichloro Valerophenone	61023-66-3					It is used as an intermediate in pharmaceutical

Sr. No.	Name of Products	CAS No.	Production Quantity [MT/Month]				*End use of the Product / Remarks
			Existing	Removal of Existing product	proposed	Total After Expansion	
							manufacturing and chemical synthesis
94	2 chloro 5 chloro methyl thiazole	105827-91-6					It is used as reagent for the synthesis of anti-microbial compounds.
95	R & D	--	0.0	0.0	0.1	0.1	---
Total Production Quantity [MT/Month]			**280.0**	**-190.0**	**2000.1**	**2090.1**	

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act.

6. The PP reported that presently the company is manufacturing Synthetic Organic Chemicals at Unit and now proposing Pesticide Technical and Pesticide Intermediate. Earlier Project Proponent has obtained EC vide letter no. SEIAA/GUJ/EC/5(f)/901/2020 dated 15/07/2020 for Synthetic Organic Chemicals of 280 MT/Month and CTO vide letter no. AWH-115059 date of Issue 07/10/2021 and valid up to 14/04/2026.

7. The Certified Compliance of the existing EC was obtained by the Regional office Gandhinagar vide letter CCR No.11-18/2024-IROGNR dated April 02, 2024. Out of total 125 conditions, it may be seen that 46 are complied, l7 are partly complied, 33 are agreed to comply by the project proponent, 7 are noted by the unit, 1 condition is not applicable to the unit whereas 2l conditions can't be ascertained. Action taken report for the Non-compliances has been submitted to IRO Gandhinagar vide letter dated 22.5.2024.

8. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc., lies within 10 km distance from the project site. River Narmada is flowing at distance of 6 Km in South direction. 5 Numbers of the Schedule-I species [i.e., Grey mongoose, Shikra, Indian peafowl, Indian rat snake, Indian Cobra]. Conservation plan is submitted to the District Forest Officer Dated 21/06/2024.

9. The PP reported that the Ambient air quality monitoring was carried out at 9 locations during 1st March 2022 to 31st May 2022 (Pre Monsson) and the baseline data indicates the ranges of concentrations as: PM_{10} (75.1 - 79.55 µg/m^3), $PM_{2.5}$ (43.83 - 46.38 µg/m^3), SO_2 (15.4 - 18.25 µg/m^3), NO_x (17.3 - 19.65 µg/m^3) and O_3 (10.03 - 11.8 µg/m^3), CO (1.15 - 2.35 mg/m^3), Volatile Organic Compound (VOC) (0.3 – 0.7 ppm). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 75.1 µg/m^3, 43.83 µg/m^3, 15.4 µg/m^3, and 17.3 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2, and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

10. The PP reported that the Total water requirement is 479 m^3/day (8 KL/Day Domestic + 461 KL/Day Industrial + 10 KL/Day Gardening) of which freshwater requirement of 230 m^3/day will be met from

GIDC Water Supply, rest 249 m^3/day water will be recycled water. Effluent of 212 m^3/day [Industrial + Domestic] quantity will be treated as per below treatment description. **Stream – 1 (Low COD) Low** COD effluent generated from the process section will be collected and mixed with the Utility, washing section, and sent to ETP [Primary + Secondary + Tertiary] treatment plant and after adequate treatment sent to CETP- Dahej for further treatment and disposal. **Stream – 2 (High COD) High** COD Effluent generated from the process section will be collected and treated in the ETP-II [Primary Treatment] treatment plant and then sent to the In-house MEE system. After adequate treatment of effluent, treated water will be recycled within the plant premises and Salt will be sent to the TSDF site for disposal. **Stream – 3 (Domestic Stream) Domestic** Waste Water will be collected and treated in STP. Treated Waste Water shall be utilized for gardening/plantation within the premises. During Monsoon Season, STP Treated Waste Water will be reuse in Cooling Tower.

11. Power requirement after Expansion will be 750 KVA including existing KVA and will be met by Dakshin Gujarat Vij Company Limited (DGVCL). The unit will have 2 Nos. DG set of 500 KVA capacity [Stand by] & 1 Nos. DG set of 250 KVA. Stack (height 15 m) will be provided as per CPCB norms to the proposed DG set.

Sr.	Source	Existing	Proposed	Total
1.	DGVCL	150 KVA	600 KVA	750 KVA
2.	D.G Set (Stand by)	150 KVA – 1 No.	250 KVA – 1 No. 500 KVA – 1 Nos.	250 KVA – 1 No. 500 KVA – 1 Nos.

Note: - Existing D.G Set (150 KVA) will be discontinued after expansion.

12. Existing unit has a Boilers with a capacity of 2 TPH (1 Nos.), Thermic fluid Heater (Cap. 6 Lac K cal./Hr.) (1 Nos.) and Additionally 5 TPH (1 nos.), 5 TPH (1 Nos.) (Stand by) of Boiler & 6 Lac K cal./Hr. (1 Nos.) of THF (Thermic fluid Heater) will be installed.

Sr. No.	Stack attached to	Stack Height [m]	Name of Fuel	Qty. of Fuel	Air Pollution Control System	Parameters
Existing						
1.	Steam Boiler [Capacity: 2000 kg/hr]	13	Briquettes	14 MT/Day	Multi cyclone + Bag filter + Water scrubber	PM – 150 mg/nm^3 SO_2 – 100 ppm NO_x – 50 ppm
2.	Thermic Fluid Heater [Cap. 6 lac K cal./Hr.]	13	Natural Gas	3600 SCM/Day	Adequate Stack height	
3.	DG Set [Capacity: 150 KVA] (1 No.) in emergency cases only	10	Diesel	400 Liters/Day	Adequate Stack height	
Proposed						

1	Boiler [Cap: 2 TPH]	33	Natural Gas	4600 SCM/Day	Adequate stack height	PM – 150 mg/nm^3 SO_2 – 100 ppm NO_x – 50 ppm
2	Boiler [Cap: 5 TPH]	33	Natural Gas	11500 SCM/Day	Adequate stack height	
3	Boiler [Cap: 5 TPH]	33	Briquettes Or Imported Coal	35 MT/Day Or 30 MT/Day	Multi cyclone Separator + Bag Filter + Scrubber	
4	Thermic Fluid Heater [Cap. 6 lac K cal./Hr.]	33	Briquettes Or Imported Coal	11 MT/Day Or 20 MT/Day	Multi cyclone separator + Bag Filter + Scrubber	
5	DG Set [500 KVA- 2 Nos.] [Standby]	15	Diesel	2700 Liter/Day	Retrofit Emission Control Device	
6	DG Set [250 KVA- 1 No.] [Standby]	15	Diesel	900 Liter/Day	Retrofit Emission Control Device	
After Expansion						
1.	Boiler [Cap: 2 TPH]	30	Briquettes	14 MT/Day	Multi cyclone + Bag filter + Water scrubber	PM – 150 mg/nm^3 SO_2 – 100 ppm NO_x – 50 ppm
2.	Boiler [Cap: 2 TPH]	33	Natural Gas	4600 SCM/Day	Adequate stack height	
3.	Boiler [Cap: 5 TPH]	33	Natural Gas	11500 SCM/Day	Adequate stack height	
4.	Boiler [Cap: 5 TPH]	33	Briquettes Or Imported Coal	35 MT/Day Or 30 MT/Day	Multi cyclone Separator + Bag Filter + Scrubber	
5.	Thermic Fluid Heater [Cap. 6 lac K cal./Hr.]	33	Briquettes Or Imported Coal	11 MT/Day Or 20 MT/Day	Multi cyclone separator + Bag Filter + Scrubber	
6.	Thermic Fluid Heater [Cap. 6 lac K cal./Hr.]	33	Natural Gas	3600 SCM/Day	Adequate Stack height	
7.	DG Set [500 KVA- 2 Nos.] [Standby]	15	Diesel	2700 Liter/Day	Retrofit Emission Control Device	

8.	DG Set [250 KVA- 1 No.] [Standby]	15	Diesel	900 Liter/Day	Retrofit Emission Control Device	

Note: - M/s. Zorbac Pharma LLP is committed to follow all the guideline given by solid fuel policy (Office Order No. GPCB/ANK-C992/215695 Dated-07/06/2014)

13. **Details of fuel: Existing and Proposed**

Sr.	**Fuel**	**Quantity**		
		Existing	**Proposed**	**Total**
1.	Agro waste/Briquettes	14 MT/Day	46 MT/Day	60 MT/Day
2.	Imported Coal	0.0	50 MT/Day	50 MT/Day
3.	Natural Gas	3600 SCM/Day	16100 SCM/Day	19700 SCM/Day
4.	Diesel	400 Lit/Day	3200 Lit/Day	3600 Lit/Day

14. **Details of Process emissions generation and its management**

Sr. No.	**Stack Attached to**	**Stack/Vent Height (m)**	**Air Pollution Control System**	**Type of Emission**
Existing				
1	Process Stack-I	15	Two-Stage Water Scrubber	HCl
2	Process Stack-II	15	Two Stage (Water + Alkali) scrubber	SO_2, HCl
3	Process Stack-III	15	Two-Stage Water Scrubber	HBr
4	Process Stack-IV	15	Two-Stage Water Scrubber	NH_3
5	Process Stack-V	15	Two-Stage Water Scrubber	HCl
After Expansion				
1	Process Stack-I	15	Two-Stage Water + Alkali Scrubber	HCl, Cl_2
2	Process Stack-II	15	Two-Stage Alkali Scrubber	SO_2
3	Process Stack-III	15	Two-stage scrubbers [Water + Alkali]	HBr
4	Process Stack-IV	15	Two-stage scrubbers [Water + Acidic]	NH_3
5	Process Stack-V	15	Two-stage scrubbers [Water + Alkali]	HCl, Cl_2

Note: - There will be total 5 Nos. of Process vent After Expansion.

15. **Details of Solid waste/ Hazardous waste generation and its management** 26 Categories of Hazardous/Solid Wastes will be generated from this Unit.

Sr. No.	Type / Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product, etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)				Management of HW
				Existing as per EC granted vide letter no. dated 28/05/2021	After Removal of Existing products	Additional	Total After Expansion	
1.	Empty barrels / containers / Liners contaminated with hazardous chemicals / Wastes / Bags	Storage & Handling of Raw Materials	33.1	42	0.0	100	142	Collection, Storage, Transportation, and disposal by selling to registered recycler.
2.	Used or Spent Oil	Equipment & Machineries	5.1	2.4	0.0	1.6	4	Collection, Storage, Transportation, and disposal by selling to authorized re-refiners.
3.	ETP Sludge	From ETP	35.3	999.6	0.0	598.4	1598	Collection, Storage, Transportation and sent to TSDF. (Through GPS mounted vehicle)
4.	MEE Salt	From MEE	35.3	0.0	0.0	1440	1440	
5.	Distillation Residue	From the distillation step during production from products	20.3	576	-434	1608	1750	Collection, storage, Transportation and sent to Co-processing /CHWIF.
6.	Spent Catalyst	From Process	28.2	175.8	-121.8	395	449	Collection, Storage, transportation and sent for authorized
7.	Spent Carbon	From Process	28.3	167.2	-126.2	70	111.0	

Sr. No.	Type / Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product, etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)				Management of HW
				Existing as per EC granted vide letter no. dated 28/05/2021	After Removal of Existing products	Additional	Total After Expansion	
								recyclers (Through GPS mounted vehicle)
8.	Organic Residue	From Process	28.1	384	-308	1560	1636	Collection, storage, Transportation and sent to Co-processing /CHWIF.
9.	Caustic Lye Sol. (20-25%)	From Process	28.1	6012	-3237	0.0	2775	Collection, Storage, Transportation and sell to authorized end users registered under rule 9.
10.	Liquor ammonia (22-25%)	Scrubber	28.1	1044	-1044	3240	3240	
11.	HCl Solution (28-30%)	Scrubber	SCH-II-/B (15)	4968	-3324	16487	18131	
12.	Aluminium Chloride Sol. (8-10%)	From Process	Sch -I (28.1)	5388	-2896	14360	16853	
13.	HBr sol. (45-47%)	From Process	Sch -I (28.1)	288	-288	3457	3745	Collection, Storage, Transportation and sell to authorized end users registered under rule 9.
14.	Sodium bromide (20-25%)	Scrubber	--	0.0	0.0	18706	18706	Collection, Storage, Transportation and sell to authorized end users

Sr. No.	Type / Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product, etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)				Management of HW
				Existing as per EC granted vide letter no. dated 28/05/2021	After Removal of Existing products	Additional	Total After Expansion	
								registered under rule 9.
15.	Sodium bisulfite Sol. [30%]	Scrubber	--	2340	-2340	20753	20753	Collection, Storage, Transportation and sell to authorized end users registered under rule 9.
16.	Chromium Sulfate Sol. (8-10%)	From Process	Sch -I (28.1)	2220	-2220	0.0	0.0	--
17.	Acetic acid	From Process	Sch -I (28.1)	864	-864	0.0	0.0	--
18.	Sodium Phosphate	From Process	Sch -I (28.1)	154.8	-154.8	0.0	0.0	--
19.	Spent Hyflow	From Process	Sch -I (28.1)	5.75	-5.75	0.0	0.0	--
20.	Process waste	From Process	28.1	0.0	0.0	3169	3169	Collection, Storage, Transportation and sent to Co-processing/ Common TSDF. (Through GPS mounted vehicle)
21.	Ammonium Sulphate	From Process	Sch -I (28.1)	0.0	0.0	3120	3120	Collection, Storage, Transportation and sell to authorized end users

Sr. No.	Type / Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product, etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)				Management of HW
				Existing as per EC granted vide letter no. dated 28/05/2021	After Removal of Existing products	Additional	Total After Expansion	
								registered under rule 9.
22.	Spent Sulphuric acid	From Process	SCH-II-/B (15)	0.0	0.0	5800	5800	Collection, Storage, Transportation and sell to authorized end users registered under rule 9.
23.	Spent Solvent	From Process	28.6	88672	-75260	28899	42311	Collection, Storage, Recovery, and recycling for manufacturing of product **or** sell to authorized end users registered under rule 9.
24.	Off-Specification Products	Process	28.4	21.6	0.0	30.4	52	Collection, storage, Transportation and sent to Co-processing /CHWIF.
25.	Sodium Hypo chlorite Solution	APCM Scrubber	---	0.0	0.0	907	907	Collection, storage and used in ETP as neutralizing (Oxidizing) agent.
26.	Formic Acid	From Process	--	0.0	0.0	91	91	Collection, Storage, Transportation

Sr. No.	Type / Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product, etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)				Management of HW
				Existing as per EC granted vide letter no. dated 28/05/2021	After Removal of Existing products	Additional	Total After Expansion	
								and sell to authorized end users registered under rule 9.

Details of Non - Hazardous Waste and its Disposal

Sr. No.	Name of Waste	Source of Generation	Existing Quantity	Proposed Quantity	Total Quantity	Mode of Disposal
			MT/Annum			
1.	Fly Ash	Utility	0	490	490	Collection, storage in silo and send to brick manufacturers.
2.	STP Sludge	STP	0	3.6	3.6	Collection, Storage and used as Organic Manure for Green Belt Development.
3.	Plastic Waste	Raw Material Packaging	0	2	2	Collection, Storage, Transportation and sell to authorized recyclers or authorized vendors.
4.	M.S Scrap	Equipment	0	100	100	Collection, Storage, Transportation and sell to authorized recyclers or authorized vendors.
5.	E-Waste	From Electronic Equipment	0	0.1	0.1	Collection, Storage, Transportation and sell to authorized recyclers or authorized vendors.
6.	Battery Waste	From UPS & company vehicles	0	100 Nos.	100 Nos.	Collection, Storage, Transportation and Sell to authorized recyclers or authorized vendors.
7.	Biomedical Waste	OHC	--	0.2	0.2	Collection, Storage, Transportation and sent to authorized Bio-Medical Waste Treatment Facility.
8.	Municipal Solid Waste (Dry Waste)	Canteen, Stationary, Pantry, etc.	--	5	5	Collection, storage, transportation and segregate it and send to recyclers/municipal solid waste site.
	Municipal Solid Waste (Wet Waste)					Collection, storage, transportation and compost inhouse and used as Organic Manure for green belt development.

16. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 6.03 Crores (capital) and the Recurring Cost (operation and maintenance) will be about ₹15.37 Crores per annum. Industry proposes to allocate Rs. 0.46 Crores towards Corporate Environment Responsibility.

Environmental Components	Aspect	Mitigation	Remedial Measure	Capital Cost (Rs. In Crore)	Recurring Cost (Rs. In Crore)
Air Environment	Generation of PM and other gases	Adequate pollution control system will be provided for control of gaseous emission. Adequate stack height for better dispersion of Pollutants.	Cost of Stack (8 Nos.)	0.20	0.02
			Cost of Water Scrubber (3 Nos.)	0.12	0.02
			Cost of Multi Cyclone Separator (3 Nos.)	0.09	0.01
			Cost of Bag Filter (3 Nos.)	0.30	0.03
			Cost of Retrofit Emission Control Device for D.G Set	0.03	0.005
			Cost of Alkali Scrubber (5 No.)	0.20	0.02
			Cost of Two Stage Water Scrubber (4 No.)	0.16	0.015
			Cost of CEMS	0.30	0.05

Environmental Components	Aspect	Mitigation	Remedial Measure	Capital Cost (Rs. In Crore)	Recurring Cost (Rs. In Crore)
Water Quality and Waste Water	Requirement of Fresh Water Treatment of Effluent	Rainwater will be collected and then reused within the premises. Provision of ETP, MEE, STP and Solvent Stripper	Cost of Collection Tank (2 Nos.)	0.10	0.5
			Cost of Neutralization Tank (1 Nos.)	0.08	
			Cost of Flash Mixer (2 Nos.)	0.01	
			Cost of Primary Settling Tank (2 Nos.)	0.051	
			Cost of Secondary Settling Tank (1 Nos.)	0.02	

			Cost of Filter Press (1 No.)	0.15	
			Cost of Intermediate Sump	0.02	
			Cost of Pressure Sand Filter	0.05	
			Cost of Aeration Tank	0.22	
			Cost of Activated Carbon Filter	0.05	
			Cost of Dosing Tank	0.01	
			Cost of treated effluent collation tank	0.10	
			Cost of STP	0.05	
			Cost of MEE	1.5	
			Cost of Stripper	0.30	
			Cost of Treatment	--	6.57
			Cost of Fresh Water	--	0.36
			Cost of CETP Membership	0.01	--
			Cost of TOC, pH, Flow meter	0.25	0.02
			Cost of RWH tank – 200 KL	0.50	0.03

Environmental Components	Aspect	Mitigation	Remedial Measure	Capital Cost (Rs. In Crore)	Recurring Cost (Rs. In Crore)
Hazardous Waste Generation	Generation of Hazardous Waste Generation of Non - Hazardous Waste	Hazardous and Non-Hazardous Waste will be disposed to Authorized Agency. Adequate PPE's will be provided to the workers handling solid / hazardous waste.	Membership Cost for Waste Disposal	0.01	--
			Disposal Cost of TSDF Waste	--	1.25
			Disposal Cost of Incineration Waste	--	5.99
Noise Environment	Generation of Noise	Adequate Measures for Noise Control Noise Monitoring shall be carried out	Cost of Acoustic enclosure; Silencer, Vibration pads; Noise PPEs, etc.	0.05	0.01

Occupational Health	**In case of any Accident**	**First aid box, Periodical medical Check-up of employees, doctor's visit to the unit, Insurance policy of the employees, Safety Training**	**Cost of PPE Kits (Safety Helmet, Glasses, Gloves, Shoes, Fire Proximity Suit).**	**0.06**	**0.005**
			Cost of Safety Boards	**0.0225**	**0.001**
			Cost of Eye Wash Shower	**0.04**	**0.005**
			Cost of Antidote	**--**	**0.01**
			Cost of Safety Training	**--**	**0.05**
			Cost of Safety Audit	**--**	**0.10**
			Cost of Health Checkup	**--**	**0.05**
			Cost of Mock Drill	**--**	**0.05**

Environmental Components	**Aspect**	**Mitigation**	**Remedial Measure**	**Capital Cost (Rs. In Crore)**	**Recurring Cost (Rs. In Crore)**
Green Belt Development	**--**	**33% area is developed as green belt within plant premises**	**Cost of Trees**	**0.0495**	**--**
			Maintenance of Trees	**--**	**0.005**
Environment Monitoring Program	**--**	**Regular monitoring of the environmental parameters i.e. Ambient Air Monitoring, Noise Monitoring, Hazardous waste monitoring, water & wastewater monitoring, stack monitoring**	**Cost of Environment Monitoring**	**--**	**0.10**
			Cost of Laboratory Instrument	**0.20**	**0.05**

Fire & Safety	**--**	**PLC System, Safety Audit, Fire Hydrant Line**	**Installation cost of all the Safety Equipment/ Control Measures, Installation Cost of PLC System. Monitoring cost of 3rd party Risk assessment. Installation cost of Fire Extinguisher, Fire hydrant line, alarm system in plant area [i.e., Cost of fire extinguishers, Cost of installation of Fire hydrant line, Fire trolley siren, Electric Bell] Onsite/offsite emergency Plan**	**1**	**0.1**

Environmental Components	**Aspect**	**Mitigation**	**Remedial Measure**	**Capital Cost (Rs. In Crore)**	**Recurring Cost (Rs. In Crore)**
CER Activity	**--**	**Socio-Economic Activity**	**Tree Plantation in nearby Village. (4000 Nos. of Trees will be planted and maintained)**	**0.20**	**0.01**
			Provision of Solar Photovoltaic electricity generation system of 40 kw x 62500/KW in schools and panchayat of nearby Village.	**0.25**	**0.01**
			Provision of Solar lights in nearby village (10 Solar lights in village and cost is 10000 rs./light)	**0.01**	**0.001**
Cost of conservation plan of Schedule-I species	**--**	**Conservation plan of Schedule-I species**	**6 Nos. of Schedule – I Species found within study area.**	**0.0175**	**--**
			Total	**6.03**	**15.37**

17. Industry has already developed greenbelt in an area of 33% i.e. 3300 m^2 out of total area of the project.

18. The PP reported that the Project is located in GIDC Industrial Estate, Dahej which is fall in PCPIR. PCPIR has obtained Environmental Clearance vide File no. 21-49/2010-IA-III Dated 14th September, 2017. Hence Public Hearing is exempted as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006

19. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment Officials for the functioning of EMC.

20. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

21. The estimated project cost is Rs. 55.0 Crores including existing investment of Rs. 9.0 Crores. Total Employment will be 75 persons as direct.

22. **Deliberations by the EAC:**

During deliberations, EAC discussed the following issues:

- PP submitted the details of revised flue gas after removing 1 no of 500 KvA DG set.

Sr. No.	Stack attached to	Stack Height [m]	Name of Fuel	Qty. of Fuel	Air Pollution Control System	Parameters
Existing						
1.	Steam Boiler [Capacity: 2000 kg/hr.]	13	Briquettes	14 MT/Day	Multi cyclone + Bag filter + Water scrubber	PM – 150 mg/nm^3 SO_2 – 100 ppm NO_x – 50 ppm
2.	Thermic Fluid Heater [Cap. 6 lac K cal./Hr.]	13	Natural Gas	3600 SCM/Day	Adequate Stack height	
3.	DG Set [Capacity: 150 KVA] (1 No.) in emergency cases only	10	Diesel	400 Liters/Day	Adequate Stack height	
Proposed						
1	Boiler [Cap: 2 TPH]	33	Natural Gas	4600 SCM/Day	Adequate stack height	PM – 150 mg/nm^3 SO_2 – 100 ppm NO_x – 50 ppm
2	Boiler [Cap: 5 TPH]	33	Natural Gas	11500 SCM/Day	Adequate stack height	
3	Boiler [Cap: 5 TPH]	33	Briquettes Or Imported Coal	35 MT/Day Or 30 MT/Day	Multi cyclone Separator + Bag Filter + Scrubber	

4	Thermic Fluid Heater [Cap. 6 lac K cal./Hr.]	33	Briquettes Or Imported Coal	11 MT/Day Or 20 MT/Day	Multi cyclone separator + Bag Filter + Scrubber	
5	DG Set [500 KVA] [Standby]	15	Diesel	1300 Liter/Day	Retrofit Emission Control Device	
6	DG Set [250 KVA] [Standby]	15	Diesel	900 Liter/Day	Retrofit Emission Control Device	
After Expansion						
1.	Boiler [Cap: 2 TPH]	30	Briquettes	14 MT/Day	Multi cyclone + Bag filter + Water scrubber	PM – 150 mg/nm^3 SO_2 – 100 ppm NO_x – 50 ppm
2.	Boiler [Cap: 2 TPH]	33	Natural Gas	4600 SCM/Day	Adequate stack height	
3.	Boiler [Cap: 5 TPH]	33	Natural Gas	11500 SCM/Day	Adequate stack height	
4.	Boiler [Cap: 5 TPH]	33	Briquettes Or Imported Coal	35 MT/Day Or 30 MT/Day	Multi cyclone Separator + Bag Filter + Scrubber	
5.	Thermic Fluid Heater [Cap. 6 lac K cal./Hr.]	33	Briquettes Or Imported Coal	11 MT/Day Or 20 MT/Day	Multi cyclone separator + Bag Filter + Scrubber	
6.	Thermic Fluid Heater [Cap. 6 lac K cal./Hr.]	33	Natural Gas	3600 SCM/Day	Adequate Stack height	
7.	DG Set [500 KVA Standby]	15	Diesel	1300 Liter/Day	Retrofit Emission Control Device	
8.	DG Set [250 KVA Standby]	15	Diesel	900 Liter/Day	Retrofit Emission Control Device	

Note: - M/s. Zorbac Pharma LLP is committed to follow all the guideline given by solid fuel policy (Office Order No. GPCB/ANK-C992/215695 Dated-07/06/2014)

Unit will discontinue the existing DG Set [Cap. 150 KVA].

Details of Fuel

Sr. No.	**Name of Fuel**	**Quantity**		
		Existing	**Additional**	**After Expansion**
1.	Agro waste/Briquettes	14 MT/Day	46 MT/Day	60 MT/Day
2.	Imported Coal	0.0	50 MT/day	50 MT/day

3.	Natural Gas	3600 SCM/Day	16100 SCM/Day	19700 SCM/Day
4.	Diesel	400 Lit/Day	1800 Lit/Day	2200 Lit/Day

- PP submitted undertaking for coal storage
- PP submitted the online EC compliance to be registered.
- PP submitted the breakup of EMP

Sr. No.	Impact	Mitigation	Responsibility	Records
A. Air Environment				
During Construction Activity				
1.	Removal of top soil layer by heavy equipment operation	▪ Soil erosion can be prevented by constructing barriers like temporary concrete block, stone walls. ▪ Use of dust suppression agents, water. ▪ Sprinkling to avoid the dust emission.	Construction Contractor	--
2.	Fugitive Emission, Particulate Matter, Dust emission, Gaseous Emission due to fuel burning in vehicles for transportation of construction material	▪ All the materials shall be covered with tarpaulin sheets to reduce the fugitive emissions during transportation. ▪ All the unpaved roads and paved roads shall be sprinkled with water. ▪ Water Sprinkling system shall be installed to reduce the fugitive emission. ▪ Barriers will be provided to avoid the dispersion of dust into surrounding environment.	Construction Contractor	--
During Operation Activity				

3.	Existing Flue Gas Emission i.e. 1 No. of Steam Boiler (2 TPH), 1 No. of Thermic Fluid Heater (6 lac K cal./Hr), 1 No. of DG Set (150 KVA) Proposed Flue Gas Emission i.e. 1 No. of Stand by Steam Boiler (2 TPH), 1 No. of Boiler (5 TPH), 1 No. of Stand by Steam Boiler (5 TPH), 1 No. of Thermic Fluid Heater (6 lac K cal./Hr.), 1 No. of 500 KVA DG Set and 1 No. of 250 KVA DG Set etc.	▪ In Existing Scenario, Company has provided Multi Cyclone with Bag Filter + Water Scrubber and Adequate Stack Height of 13 Meter to Steam Boiler and Thermic Fluid Heater. ▪ In Proposed Scenario, Company will provide Adequate Stack Height of 33 Meter to 2 TPH and 5 TPH Natural Gas based Boiler. ▪ Multi Cyclone Separator + Bag Filter + Water Scrubber with Stack Height of 33 Meter to 5 TPH Boiler and 6 lac K cal./Hr. of Thermic Fluid Heater. ▪ Adequate Stack height of 15 Meter with Retrofit Emission Control Device to D.G Set to reduce the flue gas emission. ▪ AAQ & stack emission shall be regularly monitored to ensure that AAQ parameters as well as stack emission level will be found well within the limit otherwise operation will stop	Project Proponent	--

		immediately till the emission level will within the limits.		

Flue gas emissions:

Sr. No.	Stack attached to	Stack Height [m]	Name of Fuel	Qty. of Fuel	Air Pollution Control System	Parameters
Existing						
1.	Steam Boiler [Capacity: 2000 kg/hr]	13	Briquettes	14 MT/Day	Multi cyclone + Bag filter + Water scrubber	PM – 150 mg/nm^3 SO_2 – 100 ppm NO_x – 50 ppm
2.	Thermic Fluid Heater [Cap. 6 lac K cal./Hr.]	13	Natural Gas	3600 SCM/Day	Adequate Stack height	
3.	DG Set [Capacity: 150 KVA] (1 No.) in emergency cases only	10	Diesel	400 Liters/Day	Adequate Stack height	
Proposed						
1	Boiler [Cap: 2 TPH]	33	Natural Gas	4600 SCM/Day	Adequate stack height	PM – 150 mg/nm^3 SO_2 – 100 ppm NO_x – 50 ppm
2	Boiler [Cap: 5 TPH]	33	Natural Gas	11500 SCM/Day	Adequate stack height	
3	Boiler [Cap: 5 TPH] [Stand by]	33	Briquettes Or Imported Coal	35 MT/Day Or 30 MT/Day	Multi cyclone Separator + Bag Filter + Scrubber	
4	Thermic Fluid Heater [Cap. 6 lac K cal./Hr.]	33	Briquettes Or Imported Coal	11 MT/Day Or 20 MT/Day	Multi cyclone separator + Bag Filter + Scrubber	
5	DG Set [500 KVA- 1 No.] [Standby]	15	Diesel	1300 Liter/Day	Retrofit Emission Control Device	
6	DG Set [250 KVA- 1 No.] [Standby]	15	Diesel	900 Liter/Day	Retrofit Emission Control Device	
After Expansion						

1.	Boiler [Cap: 2 TPH]	30	Briquettes	14 MT/Day	Multi cyclone + Bag filter + Water scrubber	PM – 150 mg/nm^3 SO_2 – 100 ppm NO_x – 50 ppm
2.	Boiler [Cap: 2 TPH]	33	Natural Gas	4600 SCM/Day	Adequate stack height	
3.	Boiler [Cap: 5 TPH]	33	Natural Gas	11500 SCM/Day	Adequate stack height	
4.	Boiler [Cap: 5 TPH] [Stand by]	33	Briquettes Or Imported Coal	35 MT/Day Or 30 MT/Day	Multi cyclone Separator + Bag Filter + Scrubber	
5.	Thermic Fluid Heater [Cap. 6 lac K cal./Hr.]	33	Briquettes Or Imported Coal	11 MT/Day Or 20 MT/Day	Multi cyclone separator + Bag Filter + Scrubber	
6.	Thermic Fluid Heater [Cap. 6 lac K cal./Hr.]	33	Natural Gas	3600 SCM/Day	Adequate Stack height	
7.	DG Set [500 KVA- 1 No.] [Standby]	15	Diesel	1300 Liter/Day	Retrofit Emission Control Device	
8.	DG Set [250 KVA- 1 No.] [Standby]	15	Diesel	900 Liter/Day	Retrofit Emission Control Device	

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4.	Existing Process Gas Emission i.e. 2 Nos. of HCl Process Vent, 1 No. of HCl/SO_2 Process Vent, 1 No. of HBr Process Vent and 1 No. of NH_3 Process Vent Proposed Process Gas Emission i.e. 2 Nos. of HCl / Cl_2 Process Vent, 1 No. of SO_2 Process Vent, 1 No. of HBr Process Vent and 1 No. of NH_3 Process Vent.	▪ In Existing Scenario, Company has provided 4 Nos. of Two Stage Water Scrubber and 1 No. of Two Stage Water + Alkali Scrubber with Adequate Stack Height of 15 Meter for all Process Vent to reduce the Process Gas Emission. ▪ In Proposed Scenario, Company	Project Proponent	--

		will provide 4 Nos. of Two Stage Water + Alkali Scrubber and 1 No. of Two Stage Alkali Scrubber with Adequate Stack Height of 15 Meter for all Process Vent to reduce the Process Gas Emission.		

Process Gas Emissions:

Sr. No.	Stack Attached to	Stack/Vent Height (m)	Air Pollution Control System	Type of Emission
Existing				
1	Process Stack-I	15	Two-Stage Water Scrubber	HCl
2	Process Stack-II	15	Two-Stage Water + Alkali Scrubber	SO_2, HCl
3	Process Stack-III	15	Two-Stage Water Scrubber	HBr
4	Process Stack-IV	15	Two-Stage Water Scrubber	NH_3
5	Process Stack-V	15	Two-Stage Water Scrubber	HCl
After Expansion				
1	Process Stack-I	15	Two-Stage Water + Alkali Scrubber	HCl, Cl_2
2	Process Stack-II	15	Two-Stage Alkali Scrubber	SO_2
3	Process Stack-III	15	Two-Stage Water + Alkali Scrubber	HBr
4	Process Stack-IV	15	Two-Stage Water + Alkali Scrubber	NH_3
5	Process Stack-V	15	Two-Stage Water + Alkali Scrubber	HCl, Cl_2

Note: - There will be total 5 Nos. of Process vent After Expansion.

5.	VOCs emission and Spillage during handling of raw materials	▪ To control VOC emission activated carbon column will be provided. ▪ Online VOC detector with alarm system will be installed in process area. ▪ All the flange joints of the pipe	Project Proponent	Emission Monitoring Records

		lines will be covered with flange guards. ▪ All the motors of pumps for the handling of hazardous chemicals will be flame proof and provided with suitable mechanical seal with stand-by arrangement. ▪ Avoid manual handling and give preference to skilled person for handling of raw material.		
6.	Fugitive emission due to unloading the RM in storage area, fuel burning in vehicles for transportation of RM and FG and handling of ash.	▪ All the material handling systems will be connected with de-dusting system. All the discharge points and feed points wherever the possibility of dust generation, a de-dusting suction point will be provided to collect the dust. ▪ All internal Plant roads are being paved and an industrial vacuum cleaner shall be provided to sweep the roads regularly to control fugitive emission. ▪ Water sprinklers will be provided at the unloading	Project Proponent	--

		areas of the raw materials for dust suppression. Dust suppression system with plain water - comprising piping network, valves pumps, instrumentation & control, water tank etc. will be provided. ▪ Control of fugitive emissions will be carried out from the ash pond through maintaining a permanent blanket of water cover over the deposited ash and ash also store in silo. ▪ The unit will develop 33 % of green belt along periphery to help in attenuating the pollutants emitted by the plant.		
B. Water Environment				
During Construction Activity				
7.	Generation of domestic wastewater, Spillage / leakage of water, water contamination etc.	▪ Company will be provided proper sanitation facility for domestic wastewater and dispose through soak pit during construction phase only. ▪ Proper storm water drainage system to the construction site will be provided.	Construction Contractor	--

During Operation Activity				
8.	Water consumption and wastewater generation	▪ Total water requirement for the project would be 479 KL/Day (8 KL/Day Domestic + 461 KL/Day Industrial + 10 KL/Day Gardening). Out of which 230 KL/Day fresh water will be required from GIDC, rest 249 KL/Day water will be recycled water. ▪ 212 KL/Day of Waste Water shall be generated and it will be divided in to three streams. **Stream – 1 (Low COD)** ▪ Low COD effluent generated from the process section will be collected and mixed with the Utility, washing section, and sent to ETP [Primary + Secondary + Tertiary] treatment plant and after adequate treatment sent to CETP-Dahej for further treatment and disposal. **Stream – 2 (High COD)** ▪ High COD Effluent generated from the process section will	Project Proponent	Water Consumption and waste water generation logbook Waste Water Analysis and Monitoring Record

		be collected and treated in the ETP-II [Primary Treatment] treatment plant and then sent to the In-house MEE system. After adequate treatment of effluent, treated water will be recycled within the plant premises and Salt will be sent to the TSDF site for disposal. **Stream – 3 (Domestic Stream)** ▪ Domestic Waste Water will be collected and treated in STP. Treated Waste Water shall be utilized for gardening/plantation within the premises. ▪ During Monsoon Season, STP Treated Waste Water will be reuse in Cooling Tower. ***Note: - In case of MEE shutdown, Effluent generated from the process section will be collected and sent to the ETP-II [Primary] treatment plant and then sent to CMEE for further treatment and disposal.***		

Details of Water Consumption: -

Sr. No.	Particular	Water Consumption Quantity (KL/Day)			
		Existing as per EC granted vide letter no. dated 28/05/2021	After Removal of Existing products	Additional	Total After Expansion
1	Domestic	7	0	1	8
2	Gardening	3	0	7	10
3	Industrial				
a.	Process	82	-64	147	165
b.	Washing	5	0	2	7
c.	Boiler	60	0	84	144
d.	Cooling	30	0	45	75
e.	Scrubber	18	-14	66	70
	Industrial Total	**195**	**-78**	**344**	**461**
	Total [1 + 2 + 3]	**205**	**-78**	**352**	**479**

Details of Waste Water Generation: -

Sr. No.	Particular	Wastewater Generation Quantity (KL/Day)			
		Existing as per EC granted vide letter no. dated 28/05/2021	After Removal of Existing products	Additional	Total After Expansion
1	Domestic	4	0	2	6
2	Gardening	0	0	0	0
3	Industrial				
a.	Process	147	-128	128	147
b.	Washing	5	0	2	7
c.	Boiler blow down	6	0	11	17
d.	Cooling Bleed of	3	0	8	11
e.	Scrubber	24	0	0	24
	Industrial Total	**185**	**-128**	**149**	**206**
	Total [1 + 2 + 3]	**189**	**-128**	**151**	**212**

-

C. Noise Environment				
During Construction Activity				
9.	The main sources of noise are construction machineries and vehicular movement during installation of the plant.	▪ Noise generation due to movement / operation of vehicles and equipment / machineries shall be well managed by restricting the movement/operati	Construction Contractor & Project Proponent	--

		on during night hours. ▪ Feasibility of putting up acoustic enclosure / temporary barrier around areas with high noise levels will also be explored. ▪ Provision of ear plug and ear muffs to workers.		
During Operation Activity				
10.	Noise generation during operation of plant	▪ Greenbelt will be developed and regularly maintained around high noise generating area as well as plant premises to help in attenuation of noise. ▪ PPE will be given to labour. ▪ Earmuffs will be used while in high noise areas. ▪ Separate cabins will be provided. ▪ Acoustical Enclosures and Mufflers will be provided at all required locations. ▪ Proper and timely maintenance of machineries and preventive maintenance of vehicles will be done. ▪ Important Instructions will be	Project Proponent	--

<table>
<tr><td></td><td></td><td>displayed all over the plant area.
▪ Regular Noise monitoring will be done to check the noise level and implement corrective action in case of high noise.</td><td></td><td></td></tr>
<tr><td colspan="5">D. Land Environment</td></tr>
<tr><td colspan="5">During Construction Activity</td></tr>
<tr><td>11.</td><td>Waste generated during construction activity - Contamination of soil due to disposal of construction waste</td><td>▪ Top soil at construction site shall be stored separately, conserved and shall be used for
▪ greenbelt / green cover development later.
▪ Construction waste shall be reused for PCC works, development of roads and misc. filling for
▪ construction works.
▪ Excavated soil shall be used for landscaping and gardening/greenbelt development.</td><td>Construction Contractor</td><td>--</td></tr>
<tr><td colspan="5">During Operation Activity</td></tr>
<tr><td>12.</td><td colspan="4">Generation of 8 no. of Non-Hazardous Waste, Source and Mode of Disposal:
<table>
<tr><th rowspan="2">Sr. No.</th><th rowspan="2">Name of Waste</th><th rowspan="2">Source of Generation</th><th>Existing Quantity</th><th>Proposed Quantity</th><th>Total Quantity</th><th rowspan="2">Mode of Disposal</th></tr>
<tr><th colspan="3">MT/Annum</th></tr>
<tr><td>1.</td><td>Fly Ash</td><td>Utility</td><td>0</td><td>490</td><td>490</td><td>Collection, storage in silo and send to brick manufacturers.</td></tr>
</table></td><td></td></tr>
</table>

	2.	STP Sludge	STP	0	3.6	3.6	Collection, Storage and used as Organic Manure for Green Belt Development.
	3.	Plastic Waste	Raw Material Packaging	0	2	2	Collection, Storage, Transportation and sell to authorized recyclers or authorized vendors.
	4.	M.S Scrap	Equipment	0	100	100	Collection, Storage, Transportation and sell to authorized recyclers or authorized vendors.
	5.	E-Waste	From Electronic Equipment	0	0.1	0.1	Collection, Storage, Transportation and sell to authorized recyclers or authorized vendors.
	6.	Battery Waste	From UPS & company vehicles	0	100 Nos.	100 Nos.	Collection, Storage, Transportation and Sell to authorized recyclers or authorized vendors.
	7.	Biomedical Waste	OHC	--	0.2	0.2	Collection, Storage, Transportation and sent to authorized Bio-Medical Waste Treatment Facility.

	8.	Municipal Solid Waste (Dry Waste)	Canteen, Stationary, Pantry, etc.	--	5	5	Collection, storage, transportation and segregate it and send to recyclers/municipal solid waste site.
		Municipal Solid Waste (Wet Waste)					Collection, storage, transportation and compost in-house and used as Organic Manure for green belt development.
	-						
13.	Generation of Hazardous waste, Source and Mode of Disposal:		▪ Hazardous waste will be disposed off as per Hazardous & Other Waste (Management and Transboundary Movement) Amendment Rules, 2016 and amended, 2021.		Project Proponent		Hazardous Waste Disposal Records will be maintained.

Details of Hazardous waste, Source and Mode of Disposal:

Sr. No.	**Type / Name of Hazardous waste**	**Specific Source of generation (Name of the Activity, Product, etc.)**	**Category and Schedule as per HW Rules.**	**Quantity (MT/Annum)**				**Management of HW**
				Existing as per EC granted vide letter no. dated 28/05/2021	**After Removal of Existing products**	**Additional**	**Total After Expansion**	
1.	Empty barrels / containers / Liners contami	Storage & Handling of	33.1	42	0	100	142	Collection, Storage, Transportation, and disposal

			nated with hazardous chemicals / Wastes / Bags	Raw Materials					by selling to registered recycler.
	2.	Used or Spent Oil	Equipment & Machineries	5.1	2.4	0	1.6	4	Collection, Storage, Transportation, and disposal by selling to authorized re-refiners.
	3.	ETP Sludge	From ETP	35.3	999.6	0	598.4	1598	Collection, Storage, Transportation and sent to Co-processing/ Common TSDF. (Through GPS mounted vehicle)
	4.	MEE Salt	From MEE	35.3	0	0	1440	1440	
	5.	Distillation Residue	From the distillation step during production from products	20.3	576	-434	1608	1750	Collection, storage, Transportation and sent to Co-processing /CHWIF.
	6.	Spent Catalyst	From Process	28.2	175.8	-121.8	395	449	Collection,

	7.	Spent Carbon	From Process	28.3	167.2	-126.2	70	111.0	Storage, transportation and sent for co-processing in cement industries or disposal at common incineration. (Through GPS mounted vehicle)
	8.	Organic Residue	From Process	28.1	384	-308	1560	1636	Collection, storage, Transportation and sent to Co-processing /CHWIF.
	9.	Caustic Lye Sol. (20-25%)	From Process	28.1	6012	-3237	0	2775	Collection, Storage, and reused in the manufacturing process **and/or** Collection, Storage, Transportation and sell to authorized end
	10.	Liquor ammonia (22-25%)	Scrubber	28.1	1044	-1044	3240	3240	
	11.	HCl Solution (28-30%)	Scrubber	SCH-II-/B (15)	4968	-3324	16487	18131	
	12.	Aluminium Chloride Sol. (8-10%)	From Process	Sch -I (28.1)	5388	-2896	14360	16853	

									users registered under rule 9.
	13.	HBr sol. (45-47%)	From Process	Sch -I (28.1)	288	-288	3457	3745	Collection, Storage, Transportation and sell to authorized end users registered under rule 9.
	14.	Sodium bromide (20-25%)	Scrubber	--	0	0	18706	18706	Collection, Storage, Transportation and sell to authorized end users registered under rule 9.
	15.	Sodium bisulfite Sol. [30%]	Scrubber	--	2340	-2340	20753	20753	Collection, Storage, Transportation and sell to authorized end users registered under rule 9.
	16.	Chromium Sulfate Sol. (8-10%)	From Process	Sch -I (28.1)	2220	-2220	0	0	--

17.	Acetic acid	From Process	Sch -I (28.1)	864	-864	0	0	--
18.	Sodium Phosphate	From Process	Sch -I (28.1)	154.8	-154.8	0	0	--
19.	Spent Hyflow	From Process	Sch -I (28.1)	5.75	-5.75	0	0	--
20.	Process waste	From Process	28.1	0.0	0.0	3169	3169	Collection, Storage, Transportation and sent to Co-processing/ Common TSDF. (Through GPS mounted vehicle)
21.	Ammonium Sulphate	From Process	Sch -I (28.1)	0	0	3120	3120	Collection, Storage, Transportation and sell to authorized end users registered under rule 9.
22.	Spent Sulphuric acid	From Process	SCH-II-/ B (15)	0	0	5800	5800	Collection, Storage, and reused in the manufacturing process **and/or** Collection,

									Storage, Transportation and sell to authorized end users registered under rule 9.
	23.	Spent Solvent	From Process	28.6	88672	-75260	28899	42311	Collection, Storage, Recovery, and recycling for manufacturing of product **or** sell to authorized end users registered under rule 9.
	24.	Off-Specification Products	Process	28.4	21.6	0	30.4	52	Collection, storage, Transportation and sent to Co-processing /CHWIF.
	25.	Sodium Hypochlorite Solution	APCM Scrubber	---	0	0	907	907	Collection, storage and used in ETP as neutralizing (Oxidizing) agent.
	26.	Formic Acid	From Process	--	0	0	91	91	Collection,

									Storage, Recovery, and recycling for manufacturing of product **or** sell to authorized end users registered under rule 9.
	--								
14.	Contamination of soil due to spillage / leakage of wastes & Chemicals				▪ Spillage will be managed by detection of leaks in the first place from structures or vessels. Spillage during loading unloading is channelized properly to drains. ▪ Paved area will be provided near the process area to avoid soil contamination ▪ All underground tanks will be provided with extra prevention to avoid leakage. ▪ Water less cleaning will be adopted wherever spill occurs to avoid runoff.	Project Proponent	Spillage Record
E. Ecology & Biodiversity									
15.	▪ Tree Cutting ▪ PM & gaseous emissions ▪ Noise Generation				▪ No tree cutting shall be done. ▪ Water sprinkling shall be done at the	Project Proponent	--

		site at regular intervals. ▪ Green belt and boundary wall will be provided to reduce the impact of air and noise in nearby areas.		
F. Socio- Economic				
16.	Infrastructure needs	▪ Tree Plantation in nearby Village. (4000 Nos. of Trees will be planted and maintained) ▪ Provision of Solar Photovoltaic electricity generation system of 40 kw x 62500/KW in schools and panchayat of nearby Village. ▪ Provision of Solar lights in nearby village (10 Solar lights in village and cost is 10000 rs./light)	Project Proponent	Record maintain under CER.

Corporate Environment Responsibility (CER)

As per the Ministry of Environment, Forest and Climate Change OM vide letter no. 22-65/2017.IA.III Dated 01/05/2018, For Brownfield Project if Additional Capital Investment is ≤100, fund allotted for CER activity will be 1% of Additional Project Cost. Therefore, total fund allocation will be 1% of Additional Project Cost, which will be Rs. 46 Lakhs.

Sr. No.	Activity	Rs. in Lakhs
1	Tree Plantation in nearby Village. (4000 Nos. of Trees will be planted and maintained)	20
2	Provision of Solar Photovoltaic electricity generation system of 40 kw x 62500/KW in schools and panchayat of nearby Village.	25
3	Provision of Solar lights in nearby village (10 Solar lights in village and cost is 10000 rs./light)	1
	Total	**46**

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17.	Employment Generation	▪ Total manpower requirement for the	Project Proponent	Form-32

		proposed project will be around 100 Nos. and Preference will be given to local people as far as possible.		
G. Accidental hazard				
18.	Accidental Hazard	▪ Skilled person will be hired to carry out construction activities. ▪ Provision of PPEs for the workers ▪ Emergency plan will be prepared for construction activities. ▪ All the workers will be continuously trained for proper handling and transportation of hazardous materials as per Hazardous & Other Waste (Management and Transboundary Movement) Amendment Rules, 2021. ▪ Hygiene conditions shall be maintained at site. ▪ Health and safety officers will be deputed all the time at the plant. ▪ MSDS and safety instruction will be displayed in working areas.	Project Proponent	--

Environmental Components	Aspect	Mitigation	Remedial Measure	Capital Cost (Rs. In Crore)	Recurring Cost (Rs. In Crore)
Air Environment	Generation of PM and other gases	Adequate pollution control system will be provided for control of gaseous emission. Adequate stack height for better dispersion of Pollutants.	Cost of Stack (8 Nos.)	0.20	0.02
			Cost of Water Scrubber (3 Nos.)	0.12	0.02
			Cost of Multi Cyclone Separator (3 Nos.)	0.09	0.01
			Cost of Bag Filter (3 Nos.)	0.30	0.03
			Cost of Retrofit Emission Control Device for D.G Set	0.03	0.005
			Cost of Alkali Scrubber (5 No.)	0.20	0.02
			Cost of Two Stage Water Scrubber (4 No.)	0.16	0.015
			Cost of CEMS	0.30	0.05
Water Quality and Waste Water	Requirement of Fresh Water Treatment of Effluent	Rainwater will be collected and then reused within the premises. Provision of ETP, MEE, STP and Solvent Stripper	Cost of Collection Tank (2 Nos.)	0.10	0.5
			Cost of Neutralization Tank (1 Nos.)	0.08	
			Cost of Flash Mixer (2 Nos.)	0.01	
			Cost of Primary Settling Tank (2 Nos.)	0.051	
			Cost of Secondary Settling Tank (1 Nos.)	0.02	
			Cost of Filter Press (1 No.)	0.15	
			Cost of Intermediate Sump	0.02	
			Cost of Pressure Sand Filter	0.05	
			Cost of Aeration Tank	0.22	
			Cost of Activated Carbon Filter	0.05	
			Cost of Dosing Tank	0.01	
			Cost of treated effluent collation tank	0.10	
			Cost of STP	0.05	
			Cost of MEE	1.5	
			Cost of Stripper	0.30	
			Cost of Treatment	--	6.57
			Cost of Fresh Water	--	0.36
			Cost of CETP Membership	0.01	--
Hazardous Waste Generation		Hazardous and Non-Hazardous	Membership Cost for Waste Disposal	0.01	--

	Generation of Hazardous Waste Generation of Non - Hazardous Waste	Waste will be disposed to Authorized Agency. Adequate PPE's will be provided to the workers handling solid / hazardous waste.	Disposal Cost of TSDF Waste	--	1.25
			Disposal Cost of Incineration Waste	--	5.99
Noise Environment	Generation of Noise	Adequate Measures for Noise Control Noise Monitoring shall be carried out	Cost of Acoustic enclosure; Silencer, Vibration pads; Noise PPEs, etc.	0.05	0.01
Occupational Health	In case of any Accident	First aid box, Periodical medical Check-up of employees, doctor's visit to the unit, Insurance policy of the employees, Safety Training	Cost of PPE Kits (Safety Helmet, Glasses, Gloves, Shoes, Fire Proximity Suit).	0.06	0.005
			Cost of Safety Boards	0.0225	0.001
			Cost of Eye Wash Shower	0.04	0.005
			Cost of Antidote	--	0.01
			Cost of Safety Training	--	0.05
			Cost of Safety Audit	--	0.10
			Cost of Health Checkup	--	0.05
			Cost of Mock Drill	--	0.05
Green Belt Development	--	33% area is developed as green belt within plant premises	Cost of Trees	0.0495	--
			Maintenance of Trees	--	0.005
Environment Monitoring Program	--	Regular monitoring of the environmental parameters i.e. Ambient Air Monitoring, Noise Monitoring, Hazardous waste monitoring, water & wastewater monitoring,	Cost of Environment Monitoring	--	0.10
			Cost of Laboratory Instrument	0.20	0.05

		stack monitoring			
Fire & Safety	--	PLC System, Safety Audit, Fire Hydrant Line	Installation cost of all the Safety Equipment/ Control Measures, Installation Cost of PLC System. Monitoring cost of 3rd party Risk assessment. Installation cost of Fire Extinguisher, Fire hydrant line, alarm system in plant area [i.e., Cost of fire extinguishers, Cost of installation of Fire hydrant line, Fire trolley siren, Electric Bell]	1	0.1
CER Activity	--	Socio-Economic Activity	Tree Plantation in nearby Village. (4000 Nos. of Trees will be planted and maintained)	0.20	0.01
			Provision of Solar Photovoltaic electricity generation system of 40 kw x 62500/KW in schools and panchayat of nearby Village.	0.25	0.01
			Provision of Solar lights in nearby village (10 Solar lights in village and cost is 10000 rs./light)	0.01	0.001
Cost of conservation plan of Schedule-I species	--	Conservation plan of Schedule-I species	6 Nos. of Schedule – I Species found within study area.	0.0175	--
			Total	**6.03**	**15.37**

Environment monitoring plan during operation phase is described in Table along with Environment Components, parameter, standards to be followed, location and frequency.

Environment Monitoring Plan

Sr. No.	**Environmental Component**	**Parameters**	**Standards**	**Frequency**
1.	Ambient Air Quality	Parameters prescribed by GPCB Including PM_{10}, $PM_{2.5}$, SO_2, NO_x, HCl, HBr, NH_3, Cl_2 etc.	As per National Ambient Air Quality	Once in a Month

			Standards (NAAQS)	
2.	Stack Emission Monitoring	Parameters prescribed by GPCB Including PM, SO_2, NO_x, HCl, Cl_2 etc.	Prescribed by GPCB	Once in a Month
3.	Fugitive emissions/ work place monitoring within the plant side	Parameters prescribed by GPCB	Prescribed in Gujarat Factories Rules.	Once in a Six Month
4.	Surface Water Quality	Parameters prescribed by GPCB	Water quality Standards (IS:10500)	Once in a Season
5.	Ground Water Quality	Parameters prescribed by GPCB	Water quality Standards (IS:10500)	Once in a Season
6.	Effluent Generated from Company	pH, TDS, COD, SS, Oil & Grease	Waste Water quality Standards	Daily
7.	Ambient Noise at Plant Site	Noise level in dB(A)	As per National Noise Standards	Once in a Month
8.	Soil Environment at Plant Site	Analysis of pH, conductivity, Sulphates, calcium, magnesium, Cl^-	--	Once in a Six Month
9.	Occupation Health Check-Up at Plant Site	Pre-employment and periodical health checkup	--	Once in a Six Month
10.	Greenbelt Development at Plant Site	Number of plantation (Units), Number of Survived Plants/ Trees, Number of Poor plant/ Trees	--	Once in a Year
11.	Hazardous Waste Generation Monitoring / Record Keeping	Records of generation, handling, storage, transportation and disposal of other hazardous/solid	--	Once in a Month
12.	Work Place Environmental Monitoring	Illumination, Noise, Dusting	As per Factory Act	Once in Six Month

Online Monitoring System

Flue gas emission: CEMS will be installed for online monitoring system.

Wastewater: pH, magnetic Flow meter, TOC meter, BOD meter will be installed for online monitoring system.

- PP submitted the copy of Closure report issued by RO vide letter no. 11-6/2024-IROGNR dated 22/05/2024 on action taken report for partly complied points.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members /domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance with the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during the implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The expert members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

23. The EAC, after detailed deliberations, <u>recommended</u> the project for the grant of environmental clearance, <u>subject to the compliance of the terms and conditions</u> as under, and general terms and conditions in Annexure-I:

(i) Multicyclone followed by Bag filter and wet scrubber alongwith stack of 33 m height shall be provided to proposed Briquette/imported coal fired 2 TPH boiler and proposed Thermic Fluid Heater (6 lakh kcal/hr.) to control the particulate emissions as per CPCB/SPCB norms. Stack height of 33m shall be provided to proposed natural gas fired (1x2 TPH + 1x5TPH) boiler. Stack height of 15m shall be provided to DG SET (1x 500 KvA and 1x 250 KvA).

(ii) Two stage water and alkali scrubber shall be provided to control process emissions viz. HBr. Two Stage Water + Alkali Scrubber shall be provided to control process emissions viz. HCl /Cl_2+ SO_2. Two Stage water Scrubber and acidic solution shall be provided to control process emissions viz NH_3. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

(iii) Total fresh water requirement from GIDC water supply shall not exceed 230 KLD.

(iv) NOC from the GIDC shall be obtained before start of the construction of plant for drawing of the Ground water for the project activities. State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

(v) The total effluent (Industrial + Domestic) generation shall not exceed 212 KLD. Effluent shall be segregated into high COD/TDS, Low COD/TDS and domestic effluent streams. **Stream – 1 (Low COD)** effluent generated from the process section shall be collected and mixed with the Utility, washing section, and sent to ETP [Primary + Secondary + Tertiary] treatment plant and after adequate treatment sent to CETP- Dahej for further treatment and disposal after achieving water quality for the CETP inet norms of CPCB/SPCB. **Stream – 2 (High COD) High** COD Effluent generated from the process section shall be collected and treated in the ETP-II [Primary Treatment] treatment plant and then sent to the In-house MEE system. After adequate treatment of effluent, treated water shall be recycled within the plant premises and Salt will be sent to the TSDF site for disposal **Stream – 3 (Domestic Stream)** Domestic Waste Water shall be collected and treated in STP. Treated Waste Water shall be utilized for gardening/plantation within the premises. During Monsoon Season, STP Treated Waste Water shall be reused in Cooling Tower. Treated effluent shall be passed through pit with online monitoring devices such as pH meter, flow meter and TOC analyzer.

(vi) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(vii) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(viii) The PP shall develop greenbelt of at least 5-10 m width over an area of 3300 m^2 (33%) of total area) within the project site mainly along the plant periphery, preferably within a year of the grant of EC. Tree saplings selected for the plantation should be of sufficient height, preferably 6-ft shall be planted in greenbelt area. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of

activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(ix) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions and shall also engage Environment Officials .In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(x) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 6.03 Crore (Capital cost) and ₹ 15.37 crore per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xi) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.

(xii) The project proponent shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21.7.2010 under the provisions of the Environment (Protection) Rules, 1986.

(xiii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(xiv) All the hazardous waste shall be managed and disposed as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration site or sent for coprocessing. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development.

(xv) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the

Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred. PP shall comply with the safety measures proposed for handling of styrene to prevent accidents and exposure.

(xvi) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xvii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xviii) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xix) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.

(xx) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be fire proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xxi) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xxii) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

(xxiii) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No .84.17

Proposed Synthetic Organic Chemicals (Dyes and Dyes Intermediates) manufacturing unit total capacity of 10 MT/Month within existing plant premises (by removing of existing non-EC product i.e. Narrow Woven Fabrics & Yarn Dyeing) at Plot No.: C1B-7105/2, Road No. 71, Sachin GIDC, Surat, Gujarat-394230 by M/s. Salasar Industries- Consideration of EC

[Proposal No: IA/GJ/IND3/467981/2024, F. No. IA-J-11011/364/2023-IA-II(I)]

1. The proposal is for Environmental Clearance for Proposed Synthetic Organic Chemicals (Dyes and Dyes Intermediates) manufacturing unit total capacity of 10 MT/Month within existing plant premises (by removing of existing non-EC product i.e. Narrow Woven Fabrics & Yarn Dyeing) at Plot No.: C1B-7105/2, Road No. 71, Sachin GIDC, Surat, Gujarat-394230 by M/s. Salasar Industries.

2. The project/activity is covered under Category 'B' of item 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, due to the applicability of general conditions i.e. project site is located within CPA, it requires appraisal at Central Level by the Expert Appraisal Committee (EAC).

3. The Ministry issued the Standard ToR, vide letter. No. IA-J-11011/364/2023-IA-II(I), Dated: 17/10/2023. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a Fresh case. The proposal is placed in this 84th EAC meeting held on 22.8.2024 wherein the PP along with accredited Consultant, M/s. ECOGREEN ENVIRO SERVICES [Accreditation number NABET/EIA/23-26/RA 0325, Valid up to December 24, 2026] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that Existing land area is 941.0 m^2, no additional land will be used for proposed expansion and no R& R is involved in the Project. The details of products to be manufactured are as follows:

Sr. No.	Name of Products	CAS No./ SI No.	Quantity (MT/Month)			End Use product
			Existing	Proposed	Total	
Non-EC Product						
1.	Narrow Woven Fabrics (Satin type)	--	4,80,0000 (No. / Month)	-4,80,000 (No. / Month)	0.0	Textiles Material
2.	Yarn Dyeing	--	70	-70	0.0	
Group: A Synthesis Organic Dye (Dyes Intermediate, Acid, Direct, Solvent Dyes)						
1.	Solvent Black 27	12237-22-8	--	10	10	Textile Printing &
2.	Solvent Green 5	128-80-3				

Sr. No.	Name of Products	CAS No./ SI No.	Quantity (MT/Month)			End Use product
			Existing	Proposed	Total	
3.	Solvent Yellow 82	85029-58-9				Dyeing Printing
4.	Solvent Yellow 93	4702-90-3				
5.	Solvent Yellow 114	75216-45-4				
6.	Solvent orange 62	52256-37-8				
7.	Solvent Blue 5	1325-86-6				
8.	Solvent Brown 43	71598-33-9				
9.	Solvent Blue 35	17354-14-2				
10.	Solvent Blue 36	14233-37-5				
11.	Solvent Blue 70	12237-24-0				
12.	Solvent Blue 104	116-75-6				
13.	Solvent Red 119 or Solvent Fire red G	12237-27-3				
14.	PAABSA (Para-Aminoazobenzene-4-sulfonic acid)	104-23-4				
15.	4 NAP (4- Nitro 2- Amino Phenol)	99-57-0				
16.	Acid Red 52	3520-42-1				
17.	Direct Orange 34	12222-37-6				
18.	Direct Orange 39	1325-54-8				
	Total		***4,80,000 0 (No. / Month) & 70 MT/Month**	**10**	**10**	

***Note: Existing Non-EC Product will be removed.**

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act.

6. The PP reported that the Unit does not have environment clearance for existing unit as existing products are non-EC products and it does not attract EIA notification-2006. For that, unit have obtained CC&A vide letter no. GPCB/SUR/CCA-2037/ID-13176/702522, dated: 02/02/2023 and valid up to 08/12/2027 and CTE Amendment vide letter no. GPCB/CCA-SRT-2037/ID-13176/742869 dated: 23/05/2023 in favor of M/s. Salasar Industries. Existing non-EC product of valid CC&A and CTE Amendment will be removed.

7. Compliance report of CTO certified from GPCB vide letter no.: GPCB/CCA-SRT-2037/ID-13176/818712, Dated: 07/08/2024 as per MoEF&CC's OM no. F. No: IA3-22/10/2022-IA.III [E 177258] issued dated: 08.06.2022.

8. The PP reported thatThere are no any national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc., within 10 km distance from the project site. Mindhola River is at a distance of 4.42 Km in S Direction. Pardi Kande Lake is at a distance of 1.96 km in SE Direction. Bhedvad Khadi is at a distance of 5.90 km in NNW Direction. Schedule-I species i.e. Indian Peafowl (*Pavo cristatus*) & Shikra (*Accipiter badius*), Nolio *(Urva edwardsi),* Indian ratsnake *(Ptyas mucosa) &* Indian cobra *(Naja naja)* are observed in the 10 km radius from the proposed expansion project site during baseline monitoring conducted by Function Area Expert. Wildlife Conservation Plan is submitted at the Deputy Conservator of Forests, Surat vide letter dated 4.3.2024.

9. The PP reported that Ambient air quality monitoring was carried out at 8 locations during 1st October 2023 to 31st December 2023 and the baseline data indicates the ranges of concentrations as: PM_{10} (55.1 - 108.8 µg/m^3), $PM_{2.5}$ (28.0 - 71.5 µg/m^3), NO_x (21.3 - 37.1 µg/m^3), SO_2 (17.9 - 39.0 µg/m^3), CO (BDL – 2047 µg/m^3), VOC (BDL - 1.8 µg/m^3) & H_2S (BDL). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.062 µg/m^3, 0.031 µg/m^3, 0.163 µg/m^3, 0.058 µg/m^3 and 0.0032 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2, and NOx & H_2S. The results show the maximum values of PM_{10} & $PM_{2.5}$ are exceeded at project site which may be due to the project lies in Sachin GIDC which is falls under CPA Area. But, average values of PM_{10} & $PM_{2.5}$ are within the prescribed.

10. The PP reported that the total water requirement is 40.22 (1.2+1.0+5.0+16.0+3.0+14.0+0.02) KLD for the Domestic, Gardening, Process, Boiler, Washing, Cooling and Scrubbing purpose. 12.81 KLD Boiler condensate will be reused in Boiler itself. ETP treated water @ 10.23 KLD will be reused within plant premises. Domestic Sewage will be treated in inhouse STP and 1.0 KLD treated sewage reused in gardening. Hence, total fresh water requirement will be 16.18 KLD (Industrial + Domestic) which will be met from GIDC Water supply. Permission for water requirement has been obtained from Sachin Notified Area Authority (Water Supply Division) vide connection no. 20074. High COD & TDS Stream from process @ 5.50 KLD will be neutralized at source and then after subjected to solvent stripper for removal the low volatile organic compound. Then treated water from stripper will be subjected to MEE followed by ATFD for further reduction of TDS and COD. MEE Condensate @ 5.34 KLD will be sent to in-house ETP along with dilute stream @ 5.04 KLD from Boiler, cooling & washing. After that, 10.23 KLD ETP treated water will be reused for industrial purpose. Moreover, 1.0 KLD domestic sewage will be treated in proposed STP and treated sewage will be reused within premises for gardening purpose.

Scrubbing solution NaHS (20-22%) @ 0.02 KLD Will be sent to registered end users under Rule-9. ETP sludge and MEE salt will be send to TSDF site. Hence, unit will achieve Zero liquid discharge (ZLD).

11. Power requirement after expansion will be 500 KW and will be met from Daxin Gujarat Vij Co. Ltd. (DGVCL). Unit will be installed 1 nos. DG set of capacity 100 KVA. DG set will be used as standby during power failure. Stack (11 meters) will be provided as per CPCB norms to the DG set.

12. The unit will install Natural Gas based 1 Nos. Thermic Fluid heater (2 lac kcal/hr.) &1 Nos. Boiler (1 Tone/hr.) and Diesel based 1 Nos. D.G. set (100 KVA). Adequate stack height will be installed for controlling the particulate emissions within the statutory limit of 120 mg/Nm^3 as per CPA notification.

Flue Gas Stack details

Sr. No.	Source of emission with capacity	Stack Height (meter)	Type of Fuel	Qty. of Fuel	Pollutant	Emission Standard	APCM
1	Thermic Fluid heater (2 lac kcal/hr.) (Proposed)	30	Natural Gas	379.0 SCM/Day	PM, SO_2, NO_x	120 mg/Nm^3 80 ppm 40 ppm	Adequate Stack Height
2	Boiler (1 Tone/hr.) (Proposed)	30	Natural Gas	1024 SCM/Day			
3	D.G. set (100 KVA) (Proposed)	11	Diesel	20 Lit/hr.			

Note: Existing Coal Fired Boiler (1 Tone/hr.) will be removed.

13. Details of Process emissions generation and its management.

Sr. No.	Specific Source of Emission (Name of the Product & Process)	Type of Emissions	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1	Reaction vessel (From Mfg. 4 NAP) (4-Nitro 2- Amino Phenol) (Proposed)	H_2S < 16 mg/Nm^3	18	Two stage Alkali Scrubber

14. Details of Solid waste/ Hazardous waste generation and its management:

Municipal Solid Waste Generation and its Management

Particulars	No.	@kg/day	Quantity of waste (in kg/day)	Management
Workers	15	0.15 kg/day	2.25	Will be segregate and collected in dustbins and will be sent to Municipal Council Surat, Gujarat.
		Total	**2.25 kg/day**	

Hazardous Waste Generation and its management

Sr. No.	Type/ Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	*Existing Quantity (MT/ Annum)	Proposed Quantity (MT/ Annum)	Quantity (MT/ Annum)	Management of HW
1	Used Oil	Maintenance	5.1 / SCH.I	0.12 (-0.12)	0.12	0.12	Re-used as lubricants in the machineries within the premises or Collection, storage, transportation, Disposal by selling to Registered re fineries through GPS Mounted Vehicles.
2	Discarded containers/ Bags/ Linear	Packing Materials, Storage of Raw material	33.1 / SCH.I	0.45 (-0.45)	694.0	694.0	Collection, Storage, Reuse & sell to authorized vendor through GPS Mounted Vehicles.
3	ETP Sludge	ETP	35.3 / SCH.I	3.0 (-3.0)	55.0	55.0	Collection, Storage, Transportation, disposal at nearest TSDF site through GPS Mounted Vehicles.
4	Distillation Residue	From Mfg. Process Group **A: Solvent Orange 62**	20.3/ SCH.I	--	115.0	115.0	Collection, Storage, Transportation & send to pre/co-processing units (cement industries) OR disposal at nearest CHWIF site through GPS Mounted Vehicles.
5	Spent Solvent	From Mfg. Process **Group A: Solvent Orange 62**	26.4 / SCH.I	--	610.0	610.0	Collection, Storage, Handling recovered & recycled by Solvent Distillation Plant within

Sr. No.	Type/ Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	*Existing Quantity (MT/ Annum)	Proposed Quantity (MT/ Annum)	Quantity (MT/ Annum)	Management of HW
							premises. Or send to sender under rules-9 through GPS Mounted Vehicles.
6	MEE salt	MEE	35.3/SCH-I	--	22.0	22.0	Collection, Storage, Transportation, disposal at nearest TSDF site through GPS Mounted Vehicles.
7	Inorganic waste	From Mfg. **Grp. A: 4 NAP (4-Nitro 2-Amino Phenol)**	21.1/ SCH-I	--	226	226	
8.	Scrubbing Solution (20-25%) Sodium hydrogen sulfide (NaHS)	From Mfg. **Grp. A: 4 NAP (4-Nitro 2-Amino Phenol)**	26.1/SCH-I	--	7.50	7.50	Collection, Storage, Handling and will send to End Users having permission under Rule-9, through GPS Mounted Vehicles.

Note: Existing Non-EC Product will be removed after getting Environment Clearance.

15. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ Rs. 1.45 Crores (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 0.81 Crores per annum. Industry proposes to allocate Rs. 0.125 Crores towards Corporate Environment Responsibility

Estimate Benefits from the Project			**Estimate Cost from the Project**	
Sr. No.	**Category**	**Cost in Cr.**	**Category**	**Cost in Cr.**
1	Profit from Production	27.0	Project Investment excluding EMP	2.30
2	Cost of Manpower	7.0	Cost of Site Development	1.34
3	Cost of Recycled Water	0.51	Construction Cost	
4			Cost of Manufacturing & Operation	3.84

5	Cost of Corporate Environment Responsibility	0.11	Cost of Water usage	0.78
6	Cost of Env. Management System	0.61	Cost of Energy Usage	2.34
7	Cost of Avenue Plantation	0.04	Cost of Fuel Usage	3.03
8	Cost of Wildlife Conservation Plan	0.03	Cost of Solid & Hazardous Waste Storage, Transportation, Treatment & Disposal/membership etc.	1.35
9	Cost of renewable Energy	0.07	Cost of Air Emission	1.61
10	Cost of carbon sequestration/reduction	7.79	Cost of Other carbon emission as per CFP	5.66
11	Insurance to workers/employee	0.03	Cost of Wastewater Treatment	4.94
12	Cost of Raw Material Transportation	0.30	Cost of Raw Material Transportation	0.79
13	Cost of Finished Goods Transportation	0.10	Cost of Finished Goods Transportation	0.25
Total Benefits (A)		**43.59**	**Total Cost (B)**	**28.23**

16. Industry will develop greenbelt in an area of 42.72 % i.e. 402.0 sq. m. within plant premises out of total area of the project.

17. The PP reported that the project, being located within a notified industrial area i.e., Sachin Notified Industrial area, (which is notified vide gazette letter No. GHU-2005-(30)-GID-2002-2998 dated 31.8.2005), is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

18. The PP proposed to set up a EMC by engaging Environment Officials for the functioning of EMC.

19. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

20. The estimated project cost is Rs. 5.10 Crores including existing investment of Rs 1.13 Crores. Total Employment will be 15 persons as direct & 20 persons indirect after expansion.

21. **Deliberations by the EAC:**

After detailed deliberation, EAC desired the following information:

- PP submitted the revised rainwater harvesting details with increasing tank capacity from 2 KL to 10 KL
- PP submitted the CPA Compliance MoEF&CC's OM Dated 31.10.2019.

<table>
<tr><th>SR. NO.</th><th>MITIGATION MEASURES AS PER OM</th><th>REMARKS</th><th>TIMELINE</th><th>FUND ALLOCATION (Rs. in LAKHS)</th></tr>
<tr><td colspan="5"><u>AIR ENVIRONMENT</u></td></tr>
<tr><td>i)</td><td>Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants.</td><td>Will be Complied.

As per the notification, we will comply with the stringent air pollutants standards i.e., 80 % of proposed flue gas standards due to installation of proposed APCM like Adequate Stack Height for flue gas emission.

Type of fuel details & source of emissions are mentioned in below table:
Existing Flue Gas stack details
<table>
<tr><th>Sr. no.</th><th>Source of emission with capacity</th><th>Stack Height (meter)</th><th>Type of Fuel</th><th>Type of Emissions i.e., Air Pollutants</th><th>APCM</th></tr>
<tr><td>1 *</td><td>Boiler (1 Tone/hr.)</td><td>30</td><td>Coal</td><td>PM-150 mg/Nm^3 SO_2-100 PPM NO_x-50 PPM</td><td>Alkali Scrubber, Multi Cyclone</td></tr>
</table>
Total After Proposed Flue Gas emission & APCM details:
<table>
<tr><th>Sr. no</th><th>Source of emission with capacity</th><th>Stack Height (meter)</th><th>Type of Fuel</th><th>Type of Emissions i.e., Air Pollutants</th><th>APCM</th></tr>
<tr><td>1</td><td>Thermic Fluid heater (2 lac kcal/hr.) (Proposed)</td><td>30</td><td>Natural Gas</td><td rowspan="3">PM<120 mg/Nm^3 SO_2<80 ppm NOx<40 ppm</td><td>Adequate Stack Height</td></tr>
<tr><td>2</td><td>Boiler (1 Tone/hr.) (Proposed)</td><td>30</td><td>Natural Gas</td><td>Adequate Stack Height</td></tr>
<tr><td>3</td><td>D.G. set (100 KVA) (Proposed)</td><td>11</td><td>Diesel</td><td>Adequate Stack Height</td></tr>
</table>
Note: * Existing Coal fired boiler will be removed.
Existing Process gas vent details:</td><td>Installation of APCMs (Adequate Stack height) will be done before the commencement of the project.

The stringent air pollutants standards i.e., 80 % of proposed flue gas emission standards norms will be achieved by APCMs (Adequate Stack height) and it will be continuous monitored and reported to regulatory authorities.</td><td>For air Pollution Control & Prevention – Capital Cost: 13.0 Lacs Recurring Cost: 2.50 Lacs</td></tr>
</table>

<table>
<tr><td></td><td></td><td>There is no process gas emission from existing manufacturing process.
Total after Proposed Process Gas Vent Details:
<table>
<tr><th>Sr. no</th><th>Source of emission</th><th>Type of Emission with permissible limit</th><th>Stack/ vent Height (meter)</th><th>APCM</th></tr>
<tr><td>1</td><td>Reaction vessel (From Mfg. 4 NAP) (4- Nitro 2-Amino Phenol (Proposed)</td><td>$H_2S < 16$ mg/Nm^3</td><td>18</td><td>Two stage Alkali Scrubber</td></tr>
</table></td><td></td><td></td></tr>
<tr><td>ii)</td><td>CEMS may be installed in all large/medium red category industries (air polluting) and connected to SPCB and CPCB server.</td><td>The proposed unit is falls under small scale category. However, we have proposed installation and Commencement of Continuous Emission Monitoring System- CEMS (as per CPCB guidelines for relevant parameters).</td><td>Installation of CEMS will be done before the commencement of the expansion project.</td><td></td></tr>
<tr><td>iii)</td><td>Effective fugitive emission control measures should be imposed in the process, transportation, packing etc.</td><td rowspan="2">Source of fugitive emissions are loading and unloading section, material handling and transfer points, roads and transportation of vehicles.

Proposed measures to control fugitive emission:
All reactors, treatment vessels, agitator and process pumps shall be mechanically sealed as per requirement.
All process pumps shall be provided trays to collect probable leakage.
More weight age on selection of MOC of piping shall be given to avoid leakage/spillage.
Overflow system with return line to day tank/storage tank from batch tank will be provided to prevent hazardous material overflow.
De-dusting system will be provided at solid product bagging area.
Proper system shall be provided for decontamination and effective cleaning of drums.
All transfer points shall be fully enclosed.
Airborne dust shall be controlled.
All roads shall be paved on which movement of raw materials or products will take place.
Maintenance of air pollution control equipment shall be done regularly.
All the workers shall be provided with dust mask.
Green belt will be developed around the plant to arrest the fugitive emissions.
Whole process is/will be carried out in close loop.
Pipe line is/will be having minimum flange.
Proper ventilation is/will be provided.</td><td rowspan="2">Paved Road, dedusting system, Greenbelt development, APCM (Adequate Stack height) installation etc. will be done before the commencement of the proposed expansion project.</td><td rowspan="2"></td></tr>
<tr><td>iv)</td><td>Transportation of materials by rail/ conveyor belt, wherever feasible.</td></tr>
</table>

<table>
<tr><td></td><td></td><td>No use of any Solid fuel. Is/will use only Natural gas as fuel.
Raw materials will be stored in the covered area only.
Good housekeeping, proper maintenance and continuous observation is/will carry out to prevent the chances of any fugitive emission from process area.
Water sprinkling for dust suppression which reduce up to 30-40% pollution.</td><td></td><td></td></tr>
<tr><td>v)</td><td>Encourage use of cleaner fuels (pet coke/ furnace oil/ LSHS may be avoided).</td><td>Will be Complied

We ensure you that we will not use Pet-coke, furnace oil, LSHS as a fuel. We will only use Natural Gas (clean fuel) in our premises.</td><td>--</td><td>--</td></tr>
<tr><td>vi)</td><td>Best Available Technology may be used. For example; usage of EAF/SAF/ IF in place of Cupola furnace. Usage of Supercritical technology in place of sub-critical technology.</td><td>Will be Complied
Following innovative technology (from best available technology) and measures have been proposed for process control, reduction of Air Pollution, reduction of water pollution, reduction of fresh water consumption, waste minimization, etc.<table><tr><th>Particular</th><th>Proposed innovative technology/Measures</th></tr></table></td><td>The installation of ETP Units (Primary + Secondary + Tertiary), MEE, Agitated Thin Film Dryer (ATFD), Solvent Stripper, STP & APCMs (Adequate Stack height) will be done before the commencement of the expansion project.</td><td>For Water Pollution Control & prevention Measures – Capital Cost: 52.0 Lacs Recurring Cost: 55.20 Lacs
For air Pollution Control & Prevention – Capital Cost: 13.0 Lacs Recurring Cost: 2.50 Lacs.
For Green belt Development Plant - Capital Cost: 2.50 Lacs Recurring Cost: 1.50 Lacs.</td></tr>
</table>

		For Process Control	✓ Flame proof electrical fittings shall have been provided in the plant premises, wherever applicable. ✓ Flame arrestor shall be provided. ✓ Fire hydrant system with jockey pump as per TAC norms will be installed. ✓ Proper Control of the operating parameters, mainly temperature, vacuums, cooling media circulation, during plant operation. ✓ Process hazard analysis and HAZOP study to be conducted for each process and recommendation to be implemented. ✓ Safety devices and control instruments to be calibrated once in a year. ✓ Programmable logic controller system (PLC-SCADA base) operation will be implemented for safe operation of the exothermic reaction / Runaway reaction. Safety valve / rupture disk shall be proposed for pressurize reaction. Interlock system shall be proposed to avoid catastrophic failure. ✓ High velocity Sprinkler system to be installed in ETP area, Raw Material Area, Finished Goods Area, etc. ✓ Fire hydrant system with hose rill, fire extinguishers, foam type trolley (9 kg & 50 kg each capacity) for proposed plant to be installed as per TAC/NFPA Norms in each plant and buildings. ✓ Unit shall have to provide effective isolation for process area and storage of hazardous chemicals. ✓ Unit shall never store drum/barrels/carboys of incompatible material/chemical together. ✓ Optimization of parameters such as strength of Sulphuric acid, temperature and quality of wash water, to maximize the yield. ✓ De-dusting system will be provided at solid product bagging area. ✓ Whole process will be carried out in close loop.		

		For Reduction of Air Pollution	✓ Unit will be installed Adequate air pollution control system (i.e. Stack Height 30 m with Boiler & TFH, 11 m with D.G. Set, 18 m with reaction vessel) to control gas emission within the permissible limit. ✓ Use of cleaner fuel i.e. Natural Gas in Boiler & TFH.		
		For Reduction of Water Pollution	✓ Provision of ETP (Primary + Secondary + Tertiary), MEE followed ATFD & Solvent Stripper for proper treatment of proposed waste wastewater in proposed expansion project. ✓ Installation of CEMS will be done before the commencement of the expansion project.		
		For Reduction Fresh Water Consumption	✓ ETP treated water will be reused for Washing, Scrubbing & cooling as well as Boiler Condensate will be reused in Boiler itself for reduction of fresh water consumption. ✓ Treated Domestic Sewage will be reused in gardening for reduction of fresh water consumption. ✓ Rain water harvesting will be done during monsoon season for reduction of fresh water consumption		
		For Waste Minimization	✓ 3R's principle of Reduce, Reuse and Recycle should be followed. Reducing the need to buy new products, encouraging reusing existing ones as well as recycling the used ones can considerably bring down our emissions. ✓ The production process equipments should be modified so as to generate less waste. The raw materials used in the synthesis may be substituted by choice of more readily biodegradable chemicals. ✓ Application of counter current washing may also reduce wastewater generation. Dry cleaning of the floor is preferred when the floor washing is absolutely necessary. ✓ Effective washing of cake to minimize quantity of wash water and thereby liquid effluent. ✓ Reuse of Discarded Drums & Containers within premises for minimization of waste. ✓ Reuse of Used Oil within premises for minimization of waste.		

		<table><tr><td>GHG control Measures</td><td>✓ Unit will be installed Rooftop Solar Panel as a renewable energy for to reduce the carbon dioxide emission. ✓ Use of variable frequency drive (VFD) for less electricity consumption whenever applicable. ✓ Provision of Low NOx burner to minimize the formation and release of nitrogen oxide (NOx) emissions during the combustion process.</td></tr></table> ➢ **Domestic Wastewater:** Domestic waste water will be treated in STP and then treated water will be reused in gardening. By this process, we can reduce fresh domestic water. ➢ **Industrial Wastewater:** Total Wastewater generated from process will be treated in solvent stripper and spent solvent will be sent to nearest CHWIF site. Then treated process water from solvent stripper will be treated in inhouse MEE followed by ATFD. MEE condensate along with Washing, Scrubbing, and Cooling & Boiler blow down will be treated in ETP. Treated water will be reused within premises. MEE Salt and ETP Sludge will be sent to TSDF site. **Hence, by this technology we can reduce the freshwater requirement.** ➢ **Air pollution control measures (APCM):** We have proposed adequate stack height to control emissions of SO_2, NO_X & PM within the permissible limit. ➢ **Fuel for utility**: Natural gas will be used for Boiler & TFH instead of solid fuel (coal, pet-coke etc.). It is a clean fuel and has high calorific value. We get desired temperature for process instantly. It requires less foot print. We can also reduce the handling cost, space and manpower for feeding the coal to utility. ➢ **Hazardous/Solid Waste**: Unit shall explore the possibilities for environment friendly methods like co-processing & reusing of hazardous waste for disposal of incinerable & land fillable wastes before sending to CHWIF & TSDF site respectively.		
vii)	Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible.	Please note that, out of total project area (**941.0 sq. m**.) **42.72 %** area i.e., **402.0 sq. m. inside plant premised area will be developed.** About total **122 trees** will be planted in the green belt area. **Greenbelt development plan:**	Within 2 months before start operation of the proposed project	• For Green belt Development Plant – Capital Cost: 2.50 Lacs Recurring Cost: 1.50 Lacs.
viii)	Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.			

ix)	Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to be widened, shall be prescribed as a condition.	We will develop RCC road (in periphery of the plot area with adequate turning radius) in our premises even though we frequently sprinkle the water on road to avoid the dusting due to vehicular movement.	RCC Roads will be developed before commencement of the expansion project.	--
		WATER ENVIEONMENT		
i)	Reuse/recycle of treated wastewater, wherever feasible.	**Will be Complied** • **During Non-Monsoon Period:** Total water Requirement of the proposed project will be **40.22 KLD**. Reuse/recycle qty. will be **24.04 KLD**. Hence, Fresh water requirement will be reduced from **40.22 KLD** to **16.18 KLD**. • **During Monsoon Period:** Total water Requirement of the proposed project will be **39.22 KLD**. Reuse/recycle qty. will be **24.04 KLD**. Additionally, **1.8 KLD** rain water will be used. Hence, Fresh water requirement from GIDC will be reduced from **39.22 KLD** to **13.38 KLD**.	The installation of ETP Units (Primary, Secondary, Tertiary and Multiple Effect Evaporator) & STP will be done before the commencement of the expansion project. The installation rainwater harvesting tank will be done before the commencement of the expansion project.	• For Water Pollution Control & prevention Measures – Capital Cost: 52.0 Lacs Recurring Cost: 55.20 Lacs • For Rainwater Harvesting Structure Installation - Capital Cost: 3.0 Lacs. Recurring Cost: 0.60 Lacs
ii)	Continuous monitoring of effluent quality/quantity in large and medium Red Category Industries (water polluting).	**will be Complied.** Our unit falls under small scale industry (SSI). So, this condition is not applicable to us. However, we have proposed installation of Flow meter & PTZ camera at reuse line and its connectivity will provide to CPCB and GPCB server.	Installation of Flow meter & PTZ camera will be done before the commencement of the expansion project.	
iii)	A detailed water harvesting plan may be submitted by the project proponent.	**Will be Complied.** We have proposed to install Rainwater harvesting structure to collect rooftop rainwater to reduce fresh water consumption. Approx. 163 m3/yr rainwater will be harvested during monsoon season for which 10 KL X 1 Nos. underground RCC water storage tank will be provided. Storage Tank dimension will be - 2.5 mtr X 2.0 mtr X 2.0. Stored rain water will be used in	The installation of rainwater harvesting tank will be done before the commenceme	• For Rainwater Harvesting Structure Installation - Capital Cost: 3.0 Lacs.

<table>
<tr><td></td><td></td><td>domestic, industrial activities etc after necessary pre-treatment.</td><td>nt of the Proposed expansion project.</td><td>Recurring Cost: 0.60 Lacs</td></tr>
<tr><td>iv)</td><td>Zero-liquid-discharge-wherever-techno-economically feasible.</td><td>In our proposed project, we will install in-house ETP along with in-house solvent stripper, MEE and Agitated Thin Film Dryer (ATFD) to achieve Zero Liquid Discharge (ZLD). Treated water quality is feasible to reuse in Industrial activities.
<table>
<tr><th>Sr. No.</th><th>Parameter</th><th>Unit</th><th>Manufacturing process (Worst case) Group-A (Dyes intermediate) 4 - Nitro 2- Amino Phenol (4NAP)</th><th>After Solvent stripper (MEE Inlet)</th><th>MEE Condensate (To ETP)</th></tr>
<tr><td colspan="3">Quantity (KLD)</td><td>5.50</td><td>5.40</td><td>5.34</td></tr>
<tr><td>1</td><td>pH</td><td>pH Unit</td><td>5.0-6.0</td><td>6.5-7.5</td><td>6.5-7.5</td></tr>
<tr><td>2</td><td>TSS</td><td>mg/L</td><td>185</td><td>166</td><td>91</td></tr>
<tr><td>3</td><td>TDS</td><td>mg/L</td><td>9825</td><td>9975</td><td>998</td></tr>
<tr><td>4</td><td>BOD</td><td>mg/L</td><td>4170</td><td>2085</td><td>1251</td></tr>
<tr><td>5</td><td>COD</td><td>mg/L</td><td>13500</td><td>4050</td><td>2025</td></tr>
</table>
<table>
<tr><th rowspan="2">Sr. No.</th><th rowspan="2">Parameter</th><th rowspan="2">Unit</th><th colspan="3">Stream from other utilities & process waste water Characteristics</th><th rowspan="2">Combine Effluent @1</th></tr>
<tr><th>Boiler</th><th>Cooling</th><th>Washing</th></tr>
<tr><td colspan="3">Quantity (KLD)</td><td>0.2</td><td>1.84</td><td>3.0</td><td>5.04</td></tr>
<tr><td>1</td><td>pH</td><td>pH Unit</td><td>6-8</td><td>6-8</td><td>6-7</td><td>6.5-7.5</td></tr>
<tr><td>2</td><td>TSS</td><td>mg/L</td><td>56</td><td>87</td><td>150</td><td>123</td></tr>
<tr><td>3</td><td>TDS</td><td>mg/L</td><td>300</td><td>750</td><td>1550</td><td>1208</td></tr>
<tr><td>4</td><td>BOD</td><td>mg/L</td><td>10</td><td>15</td><td>487</td><td>296</td></tr>
<tr><td>5</td><td>COD</td><td>mg/L</td><td>30</td><td>48</td><td>2298</td><td>1387</td></tr>
</table>
<table>
<tr><th>SR. No.</th><th>Parameter</th><th>Unit</th><th>Combine Effluent @1</th><th>MEE Condensate (To ETP)</th><th>Combine effluent @2</th><th>After Primary Treatment</th><th>After Secondary Treatment (Will be used in plant premises)</th></tr>
<tr><td colspan="3">Quantity (KLD)</td><td>5.04</td><td>5.34</td><td>10.38</td><td>10.25</td><td>10.23</td></tr>
<tr><td>1</td><td>pH</td><td>pH Unit</td><td>6.5-7.5</td><td>6.5-7.5</td><td>6.5-7.5</td><td>6.5-7.5</td><td>6.5-7.5</td></tr>
<tr><td>2</td><td>TSS</td><td>mg/L</td><td>123</td><td>91</td><td>107</td><td>27</td><td><25</td></tr>
<tr><td>3</td><td>TDS</td><td>mg/L</td><td>1208</td><td>998</td><td>1100</td><td>1200</td><td><1250</td></tr>
<tr><td>4</td><td>BOD</td><td>mg/L</td><td>296</td><td>1251</td><td>789</td><td>473</td><td><100</td></tr>
<tr><td>5</td><td>COD</td><td>mg/L</td><td>1387</td><td>2025</td><td>1716</td><td>1201</td><td><250</td></tr>
</table></td><td>The installation of ETP Units (Primary, Secondary, Tertiary and Multiple Effect Evaporator) & STP will be done before the commencement of the expansion project. The installation rainwater harvesting tank will be done before the commencement of the expansion project.</td><td>• For Water Pollution Control & prevention Measures – Capital Cost: 52.0 Lacs Recurring Cost: 55.20 Lacs.</td></tr>
<tr><td>v)</td><td>In case, domestic waste water generation is more than 10 KLD, the industry may install STP.</td><td>Please note that, domestic wastewater generation from our premises will be only 1.0 KLD after proposed expansion which is less than 10 KLD. However, we will install STP System of 1.5 KLD and treated water will be reused within plant premises for gardening purpose.</td><td>Installation of STP will be done before the commencement of the expansion project.</td><td></td></tr>
<tr><td colspan="5">LAND ENVIRONMENT</td></tr>
<tr><td>i)</td><td>Increase of green belt cover by 40% of the</td><td>Please note that, out of total project area (941.0 sq. m.) 42.72 % area i.e., 402.0 sq. m. inside plant premised</td><td>Within 2 months before</td><td></td></tr>
</table>

<table>
<tr><td></td><td>total land area beyond the permissible requirement of 33%, wherever, feasible for new projects.</td><td rowspan="2">area will be developed. About total 122 trees will be planted in the green belt area.</td><td rowspan="2">start operation of the proposed project.</td><td rowspan="2">• For Green belt Development Plant - Capital Cost: 2.50 Lacs Recurring Cost: 1.50 Lacs.</td></tr>
<tr><td>ii)</td><td>Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.</td></tr>
<tr><td>iii)</td><td>Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/ PCCs.</td><td>Not applicable.

We have proposed Natural gas (Clean Fuel) for proposed Boiler & Thermic Fluid heater. Hence, there will be no generation of High volume – Low effect wastes i.e., fly-ash, slag, red-mud, de-inking sludge etc.</td><td>--</td><td>--</td></tr>
<tr><td>iv)</td><td>More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in Co-processing.</td><td>Will be Complied.
We will strictly follow Hazardous and Other Wastes (Management and Trans- boundary Movement) Rules, 2016 for dispose of hazardous wastes. We will explore possibility to dispose its hazardous wastes through co-processing, pre-processing to the extent possible prior its disposal to incineration/ landfill.
➢ Hazardous waste like used oil will be collected in a leak proof containers & disposed only to GPCB registered authorized re-processors provided the oil meets the standards as per schedule-5 part A of the rules.
➢ Hazardous waste like ETP Sludge & MEE Salt will be sent to TSDF.
➢ Hazardous waste like Distillation Residue & Spent Solvents Shall be store in a secured manner & handed over to GPCB authorized incinerators (CHWIF) /co-processing in cement industries. Shall be collected in a leak proof containers & disposed as per rule 9.
<table>
<tr><th rowspan="2">Sr. No</th><th rowspan="2">Type/Name of Hazardous waste</th><th colspan="3">Quantity (MT/Year)</th><th rowspan="2">Management of HW</th></tr>
<tr><th>Existing</th><th>Proposed</th><th>Total</th></tr>
<tr><td>1.</td><td>Used Oil</td><td>0</td><td>0.12</td><td>0.12</td><td>Re-used as lubricants in the machineries within the premises or Collection, storage, transportation, Disposal by selling to Registered re fineries through GPS Mounted Vehicles.</td></tr>
<tr><td>2.</td><td>Discarded containers/ Bags/ Linear</td><td>0</td><td>694</td><td>694</td><td>Collection, Storage, Reuse & sell to authorized vendor through GPS Mounted Vehicles.</td></tr>
</table></td><td>Since commencement of the production.</td><td>• For Hazardous Waste Management & Disposal - Capital Cost: 7.0 Lacs Recurring Cost: 8.50 Lacs.</td></tr>
</table>

		3.	ETP Sludge	0	55	55	Collection, Storage, Transportation, disposal at nearest TSDF site through GPS Mounted Vehicles.		
		4.	Distillation Residue	0	115	115	Collection, Storage, Transportation & send to pre/co-processing units (cement industries) OR disposal at nearest CHWIF site through GPS Mounted Vehicles		
		5.	Spent Solvent	0	610	610	Collection, Storage, Handling recovered & recycled by Solvent Distillation Plant within premises. Or send to sender under rules-9 through GPS Mounted Vehicles.		
		6.	MEE salt	0	22	22	Collection, Storage, Transportation, disposal at nearest TSDF site through GPS Mounted Vehicles.		
		7.	Inorganic waste	0	226	226			
		8.	Scrubbing Solution (20-25%) Sodium hydrogen sulfide (NaHS)	0	7.50	7.50	Collection, Storage, Handling and will send to End Users having permission under Rule-9, through GPS Mounted Vehicles.		
		Note: Existing non-EC Product will be removed.							
		Non – Hazardous Waste Management							
		Sr. No	**Type/Name of Non-Hazardous Waste**	**Quantity (MT/Annum)**	**Management**				
		1.	STP Sludge	0.25	Collection, Storage and used as manure for Gardening purpose.				
		2.	C & D Waste	35.0	Waste will be reused for levelling within premises OR sold to authorized vendor.				
OTHER CONDITION (ADDITIONAL)									
i)	Monitoring of compliance of EC conditions may be submitted with third party audit every year.	**Noted and will be complied.** After obtaining EC for proposed expansion project, we will submit report of compliance of the conditions of EC every year to the Board prepared by third party.						At Interval of 6 months after getting EC From EAC.	--
ii)	The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of	**Will be Complied.** We will allocate fund for CER two times that is 2% of the total project cost as per given in the OM dated 01.05.2018 in our proposed project. Estimated Budget For CER: Project cost: **Rs. 5.16 Crores**.						Within 2 years of commencement of the expansion project.	• For CER Activities - Capital Cost: 11.0 Lacs Recurring Cost: 1.50 Lacs.
		Component	**As per Norms**	**Allocation**					

<table>
<tr>
<td></td>
<td>Environmental Clearance.</td>
<td>
<table>
<tr><td>CER</td><td>Rs. 10.32 lacs (2.0 %)</td><td>Rs. 12.5 lacs (2.42 %)</td></tr>
</table>
<table>
<tr><th rowspan="2">Activities
(On basis of Needs Assessment)</th><th colspan="3">Phase Wise Budget (Lakh)</th><th rowspan="2">Recurring Cost (Lakh)</th></tr>
<tr><th>1st Year</th><th>2nd Year</th><th>Total</th></tr>
<tr><td>Rain Water Recharging System
Rain Water Recharging system - Umber village-1 Nos. @ Kansad village – 1 Nos.</td><td>1.5</td><td>1.5</td><td>3.0</td><td rowspan="3">1.5</td></tr>
<tr><td>Solar Energy Utilization
Installation of 20 KW Roof Top Solar System (1.0 KW/household) for 20 Nos. household @ Gabheni Village</td><td>3.0</td><td>3.0</td><td>6.0</td></tr>
<tr><td>Green belt development
Plantation around location area as village Sachin cost of 1 Tree - 2000/- with maintenance of water for 2 year (100 Trees).</td><td>1.0</td><td>1.0</td><td>2.0</td></tr>
<tr><td>Total Cost</td><td colspan="3">11.0</td><td>1.5</td></tr>
<tr><td colspan="5">12.5</td></tr>
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<td></td>
<td></td>
</tr>
</table>

- PP submitted the supporting document for periphery internal road within premises
- PP submitted the revised EMP cost detail with increasing cost of OHC

Sr. No.	Unit	Detail	Capital Cost (Rs. In Lacs)	Total Recurring Cost (Rs. In Lacs/Annum)
1	Water pollution control	ETP:15 KLD MEE: 8 KLD, Solvent Stripper: 7 KLD STP: 1.5 KLD	52.0	55.20
2	Air Pollution control	Stack:/Vent: 4 Nos. Alkali Scrubber: 1 Nos.	13.0	2.50
3	Hazardous Management	OWC for Bio-Degradable waste and Membership for Disposal and transportation of waste	7.0	8.5
4	Fire & Safety	Fire Hydrant, Fire Safety, Fire water storage tank & sprinkler System, PPES & Proximity Suit, PLC + Flame proof Electrical fittings, Fire Extinguishers & Foam Type Trolly + Trailer Driver Pump	38.5	6.30
5	Green Belt Development	Total Green Belt area - 402 Sq. m (42.72% of the total land area) will be developed within plant premises Total 122 Nos. Trees (101 Nos. Trees + 21 Nos. Trees considering 80% of survival rate)	2.50	1.5

6	**Occupational Health**	**O.H.C, OHS Training & Mis.**	**7.0**	**10.0**
7	Noise Pollution Control	Acoustic enclosure & Silencer & Vibration pads & Noise PPEs	3.0	1.0
8	Environment Monitoring Program	AWH monitoring (External + Internal lab)	5.0	2.0
9	CER Funds	2.45 % Total Project cost- Greenbelt Development, Renewable Energy Utilization & Rainwater Recharging system	11.0	1.5
10	Renewable energy	Roof top solar within premises (20 Panels = 10 KW power)	6.5	0.70
11	**Rainwater Harvesting**	**Storage tank along with piping & filtration system for Rainwater Harvesting (10.0 KL Tank)**	**3.0**	**0.60**
12	Wildlife (Schedule-I species) Conservation	Plantation, Awareness programme for conservation, Award to informer, Species Rescue Kit, Species trap cage etc.	2.50	0.50
		Total	**151.0**	**90.35 ~ 90.50**

Breakup of Project Cost

Details	Existing (Rs. In Cr.)	Proposed (Rs. In Cr.)	Total (Rs. In Cr.)
Land	0.38	-	0.38
Building	0.16	0.81	0.97
Machinery	0.50	1.80	2.30
Env. & Safety	0.09	1.42	1.51
Miscellaneous (i.e. Green belt, CER, Renewal energy, Rainwater Harvesting, wildlife conservation)			
Total	**1.13**	**4.03**	**5.16**

- PP submitted the Hazardous material antidotes

S. N	Haz. Chemicals	Max. Qty to be stored (MT)	Mode of Storage	MSIHC Rule	CAS No.	NFPA	LEL %	UEL %	F.P. °C	B.P. °C	Va. Pr. Kpa	LD 50 Oral mg/kg	LC50 PPM	STEL (PPM)	TWA (PPM)	IDLH (PPM)	Type of Hazards	Antidotes
Drum & Carboys (Highly Toxic)																		

S. N	Haz. Chemicals	Max. Qty to be stored (MT)	Mode of Storage	MSIHC Rule	CAS No.	NFPA	LEL %	UEL %	F.P. °C	B.P. °C	Va. Pr. Kpa	LD 50 Oral mg/kg	LC50 PPM	STEL (PPM)	TWA (PPM)	IDLH (PPM)	Type of Hazards	Antidotes
1	Hydrochloric acid	2.8	HDPE Drum (200 lit x 14)	313	7647-01-0	3-0-1-NA	-	-	-	71	7.24	700	5010	1.8	1.8	50	Corrosive & Toxic	Milk, Milk butter and milk of magnesia.
2	Acetic acid	0.2	HDPE Drum (200 lit x 1)	2	64-19-7	3-2-0-NA	4	16	39	118	1.5	3310	5620	-	10	50 mg/m^3	Corrosive, Flammable & Toxic	Sodium Hydro Carbonate (4% Conc.), Milk, Lime Juice, Milk of Magnesia
3	Sodium Hydroxide (C.S. lye)	1.2	HDPE Drum (200 lit x 6)	571	1310-73-2	3-0-0-NA	-	-	-	1388	0.01	4090	45.4	2	2	10	Highly Toxic	Sodium Hydro-Carbonate (4% Conc.), Milk, Lime Juice, Milk of Magnesia
4	Formic Acid	0.2	HDPE Drum (200 lit x 1)	287	64-18-6	3-2-1-NA	10	45	50	101	44 mbar	730	15 g/m^3	10	5	30	Flammable	Sodium Hydro Carbonate (4% Conc.), Milk, Lime Juice, Milk of Magnesia
5	Phthalic anhydride	0.4	HDPE Drum (200 lit x 2)	508	85-44-9	2-1-1-NA	1.70	10.50	152	284	0.01 mbar	1530	> 2.14 mg/L	0.005 mg/m3	0.002 mg/m3	60 mg/m3	Highly Toxic	Milk of Magnesia
6	Formaldehyde	0.2	HDPE Drum (200 lit x 1)	285	50-00-0	3-2-0-NA	7	73	64	-19	101.32	100	333	2	0.75	20	Highly Toxic	Water and medical emergency
7	Aniline	0.2	HDPE Drum (200 lit x 1)	37	62-53-3	3-2-0-NA	1.3	11	76	181 - 185	0.5 mmHg	440	1.82 mg/L	-	2	100	Combustible	In natural breathing fresh air and inhalation of oxygen.
8	Sulphuric Acid	1.0	HDPE Drum (200 lit x 5)	591	7664-93-9	3-0-2-NA	-	-	-	337	0.0001	2140	510 mg/m^3	2 mg/m^3	1 mg/m^3	15 mg/m^3	Highly Toxic, Reactive & oxidizer	Sodium Hydro-Carbonate (4% Conc.),
Drum & Carboys (Highly flammable)																		
9	Methanol	5.0	HDPE Drum (200 lit x 25)	377	67-56-1	1-3-0-NA	6	36	11	64.7	13.02	5628	6400	250	200	6000	Highly flammable	10 mg diazepam through injection
10	Butenol	0.2	HDPE Drum (200 lit x 1)	--	71-36-3	2-3-0-NA	1.4	11.2	35	117	0.58	700	>8000	--	20	1400	Flammable	-
11	O-Xylene	1.0	HDPE Drum (200 lit x 5)	442	1330-20-7	2-3-0-NA	1.9	12.3	32	138.5	1.893	4000	6500	150	100	900	Flammable	Diazem – 1 mg/Kg (Intravenous), Epinephina, Efidrine. Fresh air/Oxygen, 0.1 mg/kg slowly through injection rest in bed

- PP submitted the revised chapter -10

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC deliberated the Onsite and Offsite Emergency plans and also the various mitigation measures proposed during the implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, as amended from time to time.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for the grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

22. **The EAC, after detailed deliberations, recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I:**

(i) As proposed, the existing coal fired boiler of 1 TPH will be removed. Stack of 30 m height shall be provided to Natural gas fired Boiler (Capacity: 1Tone/hr) and Thermic Fluid heater (Capacity: (2 lac kcal/hr.) to control the particulate emission. Stack height of 11 mts shall be provided to DG Sets of Capacity 100 KVA.

(ii) Two stage alkali scrubber shall be provided to control process emissions viz. H_2S. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

(iii) Total fresh water requirement from GIDC Water Supply shall not exceed 16.5 KLD.

(iv) NOC from the Concerned Local authority shall be obtained before start of the construction of plant for drawing of the GIDC water supply for the project activities. State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

(v) The total effluent (Industrial and Domestic) generation shall not exceed 12 KL/Day. Industrial effluent shall be segregated into high TDS/COD and low TDS/COD effluent streams. High COD & TDS Stream from

process @ 5.50 KLD shall be neutralized at source and then passed through solvent stripper followed by MEE followed by ATFD. Low TDS/COD effluent shall be treated in the ETP and treated water shall be reused for industrial purpose. Domestic sewage shall be treated in the STP and treated sewage shall be reused within premises for gardening purpose. Scrubbing solution NaHS (20-22%) @ 0.02 KLD shall be sent to registered end users under Rule-9. ETP sludge and MEE salt shall be send to TSDF site. No treated water/effluent shall be discharged outside the plant premises and maintain Zero liquid discharge (ZLD).

(vi) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(vii) All the hazardous waste shall be managed and disposed as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration site or sent for coprocessing. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development

(viii) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(ix) The PP shall develop greenbelt of at least 5-10 m width over an area of **42.72 %** area i.e., **402.0 sq. m.** within the project site mainly along the plant periphery, preferably within a year of the grant of EC. Total 122 Tree saplings selected for the plantation should be of sufficient height, preferably 6-ft shall be planted in greenbelt area. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(x) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions and shall also engage Environment Officials .In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xi) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 151.0 Lakhs (Capital cost) and ₹ 90.35 Lakhs per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by

photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xii) The PP shall install Rainwater harvesting structure to collect rooftop rainwater to reduce fresh water consumption. Approx. 163 m^3/yr rainwater shall be harvested during monsoon season for which 10 KL X 1 Nos. underground RCC water storage tank shall be provided. Storage Tank dimension will be - 2.5 mtr X 2.0 mtr X 2.0 to store 10 KL rain water. Stored rain water shall be used in domestic, industrial activities etc after necessary pre-treatment.

(xiii) Monitoring of the compliance of EC conditions shall be submitted with third party audit every year.

(xiv) As proposed, an amount of ₹ 12.5 lakhs shall be allocated towards CER.

(xv) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.

(xvi) The project proponent shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21.7.2010 under the provisions of the Environment (Protection) Rules, 1986.

(xvii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(xviii) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration site or sent for coprocessing. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development.

(xix) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.

(xx) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xxi) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xxii) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xxiii) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.

(xxiv) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be fire proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xxv) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xxvi) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

(xxvii) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

(xxviii) As proposed, PP shall comply with the following mitigation measures as Per Ministry's Office Memorandum 31st October, 2019 regarding Projects Located in Critically Polluted Area:

<table>
<tr><th>SR. NO.</th><th>MITIGATION MEASURES AS PER OM</th><th>REMARKS</th><th>TIMELINE</th><th>FUND ALLOCATION (Rs. in LAKHS)</th></tr>
<tr><td colspan="5"><u>AIR ENVIRONMENT</u></td></tr>
<tr><td>i)</td><td>Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants.</td><td>Will be Complied.

As per the notification, we will comply with the stringent air pollutants standards i.e., 80 % of proposed flue gas standards due to installation of proposed APCM like Adequate Stack Height for flue gas emission.

Type of fuel details & source of emissions are mentioned in below table:
Existing Flue Gas stack details
<table>
<tr><th>Sr. no.</th><th>Source of emission with capacity</th><th>Stack Height (meter)</th><th>Type of Fuel</th><th>Type of Emissions i.e., Air Pollutants</th><th>APCM</th></tr>
<tr><td>1 *</td><td>Boiler</td><td>30</td><td>Coal</td><td>PM-150 mg/Nm^3</td><td>Alkali Scrubber</td></tr>
</table></td><td>Installation of APCMs (Adequate Stack height) will be done before the commencement of the project.

The stringent air pollutants standards i.e., 80 % of proposed flue gas emission standards norms will be</td><td>For air Pollution Control & Prevention – Capital Cost: 13.0 Lacs Recurring Cost: 2.50 Lacs</td></tr>
</table>

			(1 Tone/hr.)			SO_2-100 PPM NO_x-50 PPM	, Multi Cyclone	achieved by APCMs (Adequate Stack height) and it will be continuous monitored and reported to regulatory authorities.	

Total After Proposed Flue Gas emission & APCM details:

Sr. no	Source of emission with capacity	Stack Height (meter)	Type of Fuel	Type of Emissions i.e., Air Pollutants	APCM
1	Thermic Fluid heater (2 lac kcal/hr.) **(Proposed)**	30	Natural Gas	PM<120 mg/Nm^3 SO_2<80 ppm NOx<40 ppm	Adequate Stack Height
2	Boiler (1 Tone/hr.) **(Proposed)**	30	Natural Gas		Adequate Stack Height
3	D.G. set (100 KVA) **(Proposed)**	11	Diesel		Adequate Stack Height

Note: * Existing Coal fired boiler will be removed.

Existing Process gas vent details:

There is no process gas emission from existing manufacturing process.

Total after Proposed Process Gas Vent Details:

Sr. no	Source of emission	Type of Emission with permissible limit	Stack/ vent Height (meter)	APCM
1	Reaction vessel (From Mfg. 4 NAP) (4- Nitro 2-Amino Phenol **(Proposed)**	H_2S < 16 mg/Nm^3	18	Two stage Alkali Scrubber

ii)	CEMS may be installed in all large/medium red category industries (air polluting) and connected to SPCB and CPCB server.	The proposed unit is falls under small scale category. However, we have proposed installation and Commencement of **Continuous Emission Monitoring System- CEMS (as per CPCB guidelines for relevant parameters)**.	Installation of CEMS will be done before the commencement of the expansion project.	
iii)	Effective fugitive emission control measures should be imposed in	Source of fugitive emissions are loading and unloading section, material handling and transfer points, roads and transportation of vehicles. Proposed measures to control fugitive emission:	Paved Road, dedusting system, Greenbelt development,	

<table>
<tr><td></td><td>the process, transportation, packing etc.</td><td rowspan="2">All reactors, treatment vessels, agitator and process pumps shall be mechanically sealed as per requirement.
All process pumps shall be provided trays to collect probable leakage.
More weight age on selection of MOC of piping shall be given to avoid leakage/spillage.
Overflow system with return line to day tank/storage tank from batch tank will be provided to prevent hazardous material overflow.
De-dusting system will be provided at solid product bagging area.
Proper system shall be provided for decontamination and effective cleaning of drums.
All transfer points shall be fully enclosed.
Airborne dust shall be controlled.
All roads shall be paved on which movement of raw materials or products will take place.
Maintenance of air pollution control equipment shall be done regularly.
All the workers shall be provided with dust mask.
Green belt will be developed around the plant to arrest the fugitive emissions.
Whole process is/will be carried out in close loop.
Pipe line is/will be having minimum flange.
Proper ventilation is/will be provided.
No use of any Solid fuel. Is/will use only Natural gas as fuel.
Raw materials will be stored in the covered area only.
Good housekeeping, proper maintenance and continuous observation is/will carry out to prevent the chances of any fugitive emission from process area.
Water sprinkling for dust suppression which reduce up to 30-40% pollution.</td><td rowspan="2">APCM (Adequate Stack height) installation etc. will be done before the commencement of the proposed expansion project.</td><td rowspan="2"></td></tr>
<tr><td>iv)</td><td>Transportation of materials by rail/ conveyor belt, wherever feasible.</td></tr>
<tr><td>v)</td><td>Encourage use of cleaner fuels (pet coke/ furnace oil/ LSHS may be avoided).</td><td>Will be Complied

We ensure you that we will not use Pet-coke, furnace oil, LSHS as a fuel. We will only use Natural Gas (clean fuel) in our premises.</td><td>--</td><td>--</td></tr>
<tr><td>vi)</td><td>Best Available Technology may be used. For example; usage of EAF/SAF/ IF in place of Cupola furnace. Usage of Supercritical technology in place of sub-critical technology.</td><td>Will be Complied
Following innovative technology (from best available technology) and measures have been proposed for process control, reduction of Air Pollution, reduction of water pollution, reduction of fresh water consumption, waste minimization, etc.
<table><tr><th>Particular</th><th>Proposed innovative technology/Measures</th></tr><tr><td>For Process Control</td><td>✓ Flame proof electrical fittings shall have been provided in the plant premises, wherever applicable.
✓ Flame arrestor shall be provided.
✓ Fire hydrant system with jockey pump as per TAC norms will be installed.</td></tr></table></td><td>The installation of ETP Units (Primary + Secondary + Tertiary), MEE, Agitated Thin Film Dryer (ATFD), Solvent Stripper, STP & APCMs (Adequate Stack height) will be done before the</td><td>For Water Pollution Control & prevention Measures – Capital Cost: 52.0 Lacs Recurring Cost: 55.20 Lacs
For air Pollution Control & Prevention –</td></tr>
</table>

			✓ Proper Control of the operating parameters, mainly temperature, vacuums, cooling media circulation, during plant operation. ✓ Process hazard analysis and HAZOP study to be conducted for each process and recommendation to be implemented. ✓ Safety devices and control instruments to be calibrated once in a year. ✓ Programmable logic controller system (PLC-SCADA base) operation will be implemented for safe operation of the exothermic reaction / Runaway reaction. Safety valve / rupture disk shall be proposed for pressurize reaction. Interlock system shall be proposed to avoid catastrophic failure. ✓ High velocity Sprinkler system to be installed in ETP area, Raw Material Area, Finished Goods Area, etc. ✓ Fire hydrant system with hose rill, fire extinguishers, foam type trolley (9 kg & 50 kg each capacity) for proposed plant to be installed as per TAC/NFPA Norms in each plant and buildings. ✓ Unit shall have to provide effective isolation for process area and storage of hazardous chemicals. ✓ Unit shall never store drum/barrels/carboys of incompatible material/chemical together. ✓ Optimization of parameters such as strength of Sulphuric acid, temperature and quality of wash water, to maximize the yield. ✓ De-dusting system will be provided at solid product bagging area. ✓ Whole process will be carried out in close loop.	commencement of the expansion project.	Capital Cost: 13.0 Lacs Recurring Cost: 2.50 Lacs. • For Green belt Development Plant - Capital Cost: 2.50 Lacs Recurring Cost: 1.50 Lacs.
		For Reduction of Air Pollution	✓ Unit will be installed Adequate air pollution control system (i.e. Stack Height 30 m with Boiler & TFH, 11 m with D.G. Set, 18 m with reaction vessel) to control gas emission within the permissible limit. ✓ Use of cleaner fuel i.e. Natural Gas in Boiler & TFH.		
		For Reduction of Water Pollution	✓ Provision of ETP (Primary + Secondary + Tertiary), MEE followed ATFD & Solvent Stripper for proper treatment of proposed waste wastewater in proposed expansion project. ✓ Installation of CEMS will be done before the commencement of the expansion project.		

		For Reduction Fresh Water Consumption	✓ ETP treated water will be reused for Washing, Scrubbing & cooling as well as Boiler Condensate will be reused in Boiler itself for reduction of fresh water consumption. ✓ Treated Domestic Sewage will be reused in gardening for reduction of fresh water consumption. ✓ Rain water harvesting will be done during monsoon season for reduction of fresh water consumption		
		For Waste Minimization	✓ 3R's principle of Reduce, Reuse and Recycle should be followed. Reducing the need to buy new products, encouraging reusing existing ones as well as recycling the used ones can considerably bring down our emissions. ✓ The production process equipment should be modified so as to generate less waste. The raw materials used in the synthesis may be substituted by choice of more readily biodegradable chemicals. ✓ Application of counter current washing may also reduce wastewater generation. Dry cleaning of the floor is preferred when the floor washing is absolutely necessary. ✓ Effective washing of cake to minimize quantity of wash water and thereby liquid effluent. ✓ Reuse of Discarded Drums & Containers within premises for minimization of waste. ✓ Reuse of Used Oil within premises for minimization of waste.		
		GHG control Measures	✓ Unit will be installed Rooftop Solar Panel as a renewable energy for to reduce the carbon dioxide emission. ✓ Use of variable frequency drive (VFD) for less electricity consumption whenever applicable. ✓ Provision of Low NOx burner to minimize the formation and release of nitrogen oxide (NOx) emissions during the combustion process.		
		➢ **Domestic Wastewater:** Domestic waste water will be treated in STP and then treated water will be reused in gardening. By this process, we can reduce fresh domestic water. ➢ **Industrial Wastewater:** Total Wastewater generated from process will be treated in solvent stripper and spent solvent will be sent to nearest CHWIF site. Then treated process water from solvent stripper will be treated in inhouse MEE followed by ATFD. MEE condensate along with Washing, Scrubbing, and Cooling & Boiler blow down will be treated in ETP. Treated water will be reused				

		within premises. MEE Salt and ETP Sludge will be sent to TSDF site. **Hence, by this technology we can reduce the freshwater requirement.** ➢ **Air pollution control measures (APCM):** We have proposed adequate stack height to control emissions of SO_2, NO_X & PM within the permissible limit. ➢ **Fuel for utility**: Natural gas will be used for Boiler & TFH instead of solid fuel (coal, pet-coke etc.). It is a clean fuel and has high calorific value. We get desired temperature for process instantly. It requires less foot print. We can also reduce the handling cost, space and manpower for feeding the coal to utility. ➢ **Hazardous/Solid Waste**: Unit shall explore the possibilities for environment friendly methods like co-processing & reusing of hazardous waste for disposal of incinerable & land fillable wastes before sending to CHWIF & TSDF site respectively.		
vii)	Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible.	Please note that, out of total project area (**941.0 sq. m**.) **42.72 %** area i.e., **402.0 sq. m. inside plant premised area will be developed.** About total **122 trees** will be planted in the green belt area. **Greenbelt development plan:**	Within 2 months before start operation of the proposed project	• For Green belt Development Plant – Capital Cost: 2.50 Lacs Recurring Cost: 1.50 Lacs.
viii)	Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.			
ix)	Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to be widened, shall be prescribed as a condition.	We will develop RCC road (in periphery of the plot area with adequate turning radius) in our premises even though we frequently sprinkle the water on road to avoid the dusting due to vehicular movement.	RCC Roads will be developed before commencement of the expansion project.	--
		<u>WATER ENVIEONMENT</u>		
i)	Reuse/recycle of treated	**Will be Complied**	The installation of	

	wastewater, wherever feasible.	• **During Non-Monsoon Period:** Total water Requirement of the proposed project will be **40.22 KLD**. Reuse/recycle qty. will be **24.04 KLD**. Hence, Fresh water requirement will be reduced from **40.22 KLD** to **16.18 KLD**. • **During Monsoon Period:** Total water Requirement of the proposed project will be **39.22 KLD**. Reuse/recycle qty. will be **24.04 KLD**. Additionally, **1.8 KLD** rain water will be used. Hence, Fresh water requirement from GIDC will be reduced from **39.22 KLD** to **13.38 KLD**.	ETP Units (Primary, Secondary, Tertiary and Multiple Effect Evaporator) & STP will be done before the commencement of the expansion project. The installation rainwater harvesting tank will be done before the commencement of the expansion project.	• For Water Pollution Control & prevention Measures – Capital Cost: 52.0 Lacs Recurring Cost: 55.20 Lacs • For Rainwater Harvesting Structure Installation - Capital Cost: 3.0 Lacs. Recurring Cost: 0.60 Lacs
ii)	Continuous monitoring of effluent quality/quantity in large and medium Red Category Industries (water polluting).	**will be Complied.** Our unit falls under small scale industry (SSI). So, this condition is not applicable to us. However, we have proposed installation of Flow meter & PTZ camera at reuse line and its connectivity will provide to CPCB and GPCB server.	Installation of Flow meter & PTZ camera will be done before the commencement of the expansion project.	
iii)	A detailed water harvesting plan may be submitted by the project proponent.	**Will be Complied.** We have proposed to install Rainwater harvesting structure to collect rooftop rainwater to reduce fresh water consumption. Approx. 163 m3/yr rainwater will be harvested during monsoon season for which 10 KL X 1 Nos. underground RCC water storage tank will be provided. Storage Tank dimension will be - 2.5 mtr X 2.0 mtr X 2.0. Stored rain water will be used in domestic, industrial activities etc after necessary pre-treatment.	The installation of rainwater harvesting tank will be done before the commencement of the Proposed expansion project.	• For Rainwater Harvesting Structure Installation - Capital Cost: 3.0 Lacs. Recurring Cost: 0.60 Lacs
iv)	Zero- liquid-discharge-wherever-techno-economically feasible.	In our proposed project, we will install in-house ETP along with in-house solvent stripper, MEE and Agitated Thin Film Dryer (ATFD) to achieve Zero Liquid Discharge (ZLD). Treated water quality is feasible to reuse in Industrial activities.	The installation of ETP Units (Primary, Secondary, Tertiary and Multiple Effect	• For Water Pollution Control & prevention Measures –

Sr. No.	Parameter	Unit	Manufacturing process (Worst case) Group-A (Dyes intermediate) 4 - Nitro 2- Amino Phenol (4NAP)	After Solvent stripper (MEE Inlet)	MEE Condensate (To ETP)
Quantity (KLD)			**5.50**	**5.40**	**5.34**
1	pH	pH Unit	5.0-6.0	6.5-7.5	6.5-7.5
2	TSS	mg/L	185	166	91
3	TDS	mg/L	9825	9975	998
4	BOD	mg/L	4170	2085	1251
5	COD	mg/L	13500	4050	2025

Sr. No.	Parameter	Unit	Stream from other utilities & process waste water Characteristics			Combine Effluent @1
			Boiler	Cooling	Washing	
Quantity (KLD)			**0.2**	**1.84**	**3.0**	**5.04**
1	pH	pH Unit	6-8	6-8	6-7	6.5-7.5
2	TSS	mg/L	56	87	150	123
3	TDS	mg/L	300	750	1550	1208
4	BOD	mg/L	10	15	487	296
5	COD	mg/L	30	48	2298	1387

SR. No.	Parameter	Unit	Combine Effluent @1	MEE Condensate (To ETP)	Combine effluent @2	After Primary Treatment	After Secondary Treatment (Will be used in plant premises)
Quantity (KLD)			**5.04**	**5.34**	**10.38**	**10.25**	**10.23**
1	pH	pH Unit	6.5-7.5	6.5-7.5	6.5-7.5	6.5-7.5	6.5-7.5
2	TSS	mg/L	123	91	107	27	<25
3	TDS	mg/L	1208	998	1100	1200	<1250
4	BOD	mg/L	296	1251	789	473	<100
5	COD	mg/L	1387	2025	1716	1201	<250

Evaporator) & STP will be done before the commencement of the expansion project. The installation rainwater harvesting tank will be done before the commencement of the expansion project.

Capital Cost: 52.0 Lacs Recurring Cost: 55.20 Lacs.

v)	In case, domestic waste water generation is more than 10 KLD, the industry may install STP.	Please note that, domestic wastewater generation from our premises will be only 1.0 KLD after proposed expansion which is less than 10 KLD. However, we will install STP System of 1.5 KLD and treated water will be reused within plant premises for gardening purpose.	Installation of STP will be done before the commencement of the expansion project.	
LAND ENVIRONMENT				
i)	Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever, feasible for new projects.	Please note that, out of total project area (**941.0 sq. m.**) **42.72 %** area i.e., **402.0 sq. m. inside plant premised area will be developed.** About total **122 trees** will be planted in the green belt area.	Within 2 months before start operation of the proposed project.	• For Green belt Development Plant - Capital Cost: 2.50 Lacs Recurring Cost: 1.50 Lacs.
ii)	Stipulation of greenbelt			

<table>
<tr><td></td><td>outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.</td><td></td><td></td><td></td></tr>
<tr><td>iii)</td><td>Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/ PCCs.</td><td>Not applicable.

We have proposed Natural gas (Clean Fuel) for proposed Boiler & Thermic Fluid heater. Hence, there will be no generation of High volume – Low effect wastes i.e., fly-ash, slag, red-mud, de-inking sludge etc.</td><td>--</td><td>--</td></tr>
<tr><td>iv)</td><td>More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in Co-processing.</td><td>Will be Complied.
We will strictly follow Hazardous and Other Wastes (Management and Trans- boundary Movement) Rules, 2016 for dispose of hazardous wastes. We will explore possibility to dispose its hazardous wastes through co-processing, pre-processing to the extent possible prior its disposal to incineration/ landfill.
➢ Hazardous waste like used oil will be collected in a leak proof containers & disposed only to GPCB registered authorized re-processors provided the oil meets the standards as per schedule-5 part A of the rules.
➢ Hazardous waste like ETP Sludge & MEE Salt will be sent to TSDF.
➢ Hazardous waste like Distillation Residue & Spent Solvents Shall be store in a secured manner & handed over to GPCB authorized incinerators (CHWIF) /co-processing in cement industries. Shall be collected in a leak proof containers & disposed as per rule 9.
<table>
<tr><th rowspan="2">Sr. No</th><th rowspan="2">Type/Name of Hazardous waste</th><th colspan="3">Quantity (MT/Year)</th><th rowspan="2">Management of HW</th></tr>
<tr><th>Existing</th><th>Proposed</th><th>Total</th></tr>
<tr><td>1.</td><td>Used Oil</td><td>0</td><td>0.12</td><td>0.12</td><td>Re-used as lubricants in the machineries within the premises or Collection, storage, transportation, Disposal by selling to Registered re fineries through GPS Mounted Vehicles.</td></tr>
<tr><td>2.</td><td>Discarded containers/ Bags/ Linear</td><td>0</td><td>694</td><td>694</td><td>Collection, Storage, Reuse & sell to authorized vendor through GPS Mounted Vehicles.</td></tr>
<tr><td>3.</td><td>ETP Sludge</td><td>0</td><td>55</td><td>55</td><td>Collection, Storage, Transportation, disposal at nearest TSDF site through GPS Mounted Vehicles.</td></tr>
<tr><td>4.</td><td>Distillation Residue</td><td>0</td><td>115</td><td>115</td><td>Collection, Storage, Transportation & send to pre/co-processing</td></tr>
</table></td><td>Since commencement of the production.</td><td>• For Hazardous Waste Management & Disposal - Capital Cost: 7.0 Lacs Recurring Cost: 8.50 Lacs.</td></tr>
</table>

						units (cement industries) OR disposal at nearest CHWIF site through GPS Mounted Vehicles		
		5.	Spent Solvent	0	610	610	Collection, Storage, Handling recovered & recycled by Solvent Distillation Plant within premises. Or send to sender under rules-9 through GPS Mounted Vehicles.		
		6.	MEE salt	0	22	22	Collection, Storage, Transportation, disposal at nearest TSDF site through GPS Mounted Vehicles.		
		7.	Inorganic waste	0	226	226			
		8.	Scrubbing Solution (20-25%) Sodium hydrogen sulfide (NaHS)	0	7.50	7.50	Collection, Storage, Handling and will send to End Users having permission under Rule-9, through GPS Mounted Vehicles.		

Note: Existing non-EC Product will be removed.

Non – Hazardous Waste Management

Sr. No	Type/Name of Non-Hazardous Waste	Quantity (MT/Annum)	Management
1.	STP Sludge	0.25	Collection, Storage and used as manure for Gardening purpose.
2.	C & D Waste	35.0	Waste will be reused for levelling within premises OR sold to authorized vendor.

OTHER CONDITION (ADDITIONAL)

i)	Monitoring of compliance of EC conditions may be submitted with third party audit every year.	**Noted and will be complied.** After obtaining EC for proposed expansion project, we will submit report of compliance of the conditions of EC every year to the Board prepared by third party.	At Interval of 6 months after getting EC From EAC.	--
ii)	The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance.	**Will be Complied.** We will allocate fund for CER two times that is 2% of the total project cost as per given in the OM dated 01.05.2018 in our proposed project. Estimated Budget For CER: Project cost: **Rs. 5.16 Crores**.	Within 2 years of commencement of the expansion project.	• For CER Activities - Capital Cost: 11.0 Lacs Recurring Cost: 1.50 Lacs.

Component	As per Norms	Allocation
CER	Rs. 10.32 lacs (2.0 %)	Rs. 12.5 lacs (2.42 %)

Activities (On basis of Needs Assessment)	Phase Wise Budget (Lakh)			Recurring Cost (Lakh)
	1st Year	2nd Year	Total	
Rain Water Recharging System Rain Water Recharging system - Umber village-1 Nos. @ Kansad village – 1 Nos.	1.5	1.5	**3.0**	**1.5**

		Solar Energy Utilization Installation of 20 KW Roof Top Solar System (1.0 KW/household) for 20 Nos. household @ **Gabheni Village**	3.0	3.0	**6.0**			
		Green belt development Plantation around location area as village Sachin cost of 1 Tree - 2000/- with maintenance of water for 2 year (100 Trees).	1.0	1.0	**2.0**			
		Total Cost	**11.0**			**1.5**		
			12.5					

Agenda No .84.18.

Active Pharmaceuticals Ingredients and its intermediates and agrochemical products located at Plot No. G 20, MIDC Lote Parshuram, Taluka Khed, Distt. Ratnagiri, Maharashtra by M/s Yashica Pharmaceuticals Pvt. Ltd – Consideration of Environmental Clearance

[Proposal No: IA/MH/IND3/467773/2024; File Number: J-11011/5/2024-IA-II(I)]

1. The proposal is for the Environmental Clearance to the Active Pharmaceuticals Ingredients and its intermediates and agrochemical products located at MIDC, Lote Parshuram, Taluka Khed, District Ratnagiri, Maharashtra by M/s Yashica Pharmaceuticals Pvt. Ltd.

2. The project/activity is covered under Category 'A' of item 5(b), & 5(f) Pesticide industry and synthetic organic chemical of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended).

3. The Standard ToR was issued by the Ministry vide letter no. IA-J-11011/5/2024-IA-II(I)dated 14.1.2024. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a Fresh EC case. The proposal is placed in this 84th EAC meeting on 22.8.2024, wherein the PP along with accredited Consultant, M/s. Perfact Enviro Solutions Pvt. Ltd, (NABET Accreditation No.: NABET/EIA/2225/RA 0284 Rev. 01 valid up to 26.11.2025] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The total area is 9100 m^2 (0.91 ha) and no R& R is involved in the Project. The details of products to be manufactured are as follows:

Sr. No.	**Products Name**	**Unit**	**Quantity**	**Physical State**	**Means of Storage**	**Transportation (by Road/Air/ Sea)**	**CAS number**
EC- Products							
5(b) - Major activity							
1	2-Cyanoaniline	TPA	**14.0**	Solid	HDPE/Fiber Drum	By Road (Truck)	1885-29-6

	Total (5(b))	TPA	**14.0**	-		-	-
5(f) - Minor activity							
1	Amlodipine Besylate	TPA	120.00	Solid	HDPE/Fiber Drum	By Road (Truck)	88150-42-9
2	Glimepiride	TPA	30.0	Solid	HDPE/Fiber Drum	By Road (Truck)	93479-97-1
3	Rosuvastatin Calcium	TPA	72.0	Solid	HDPE/Fiber Drum	By Road (Truck)	147098-20-2
4	Pantoprazole Sodium	TPA	240.0	Solid	HDPE/Fiber Drum	By Road (Truck)	138786-67-1
5	Atorvastatin Calcium	TPA	72.0	Solid	HDPE/Fiber Drum	By Road (Truck)	134523-00-5
6	Atenolol	TPA	180.0	Solid	HDPE/Fiber Drum	By Road (Truck)	29122-68-7
7	Fexofenadine Hydrochloride	TPA	60.0	Solid	HDPE/Fiber Drum	By Road (Truck)	153439-40-8
8	Olanzapine	TPA	60.0	Solid	HDPE/Fiber Drum	By Road (Truck)	132539-06-1
9	Montelukast sodium	TPA	24.0	Solid	HDPE/Fiber Drum	By Road (Truck)	151767-02-1
10	Carbidopa	TPA	30.0	Solid	HDPE/Fiber Drum	By Road (Truck)	28860-95-9
11	Hydroxychloroquine	TPA	48.0	Solid	HDPE/Fiber Drum	By Road (Truck)	747-36-4
12	Labetalol hydrochloride	TPA	60.0	Solid	HDPE/Fiber Drum	By Road (Truck)	33778-93-7
13	Lafutidine	TPA	26.0	Solid	HDPE/Fiber Drum	By Road (Truck)	118288-08-7
14	Aripiprazole	TPA	36.0	Solid	HDPE/Fiber Drum	By Road (Truck)	129722-12-9
15	Levosulpride	TPA	30.0	Solid	HDPE/Fiber Drum	By Road (Truck)	23672-07-03
16	Folic acid	TPA	36.0	Solid	HDPE/Fiber Drum	By Road (Truck)	59-30-3
17	Ipratropium Bromide	TPA	30.0	Solid	HDPE/Fiber Drum	By Road (Truck)	60205-81-4
18	Albuterol	TPA	30.0	Liquid	HDPE/Fiber Drum	By Road (Truck)	18559-94-9
19	Saxagliptin	TPA	24.0	Solid	HDPE/Fiber Drum	By Road (Truck)	709031-78-7
20	Abacavir sulfate	TPA	36.0	Solid	HDPE/Fiber Drum	By Road (Truck)	188062-50-2
	Total (5(f))		**1,244.00**				
Non-EC Products Formulation							

1.	Formulation Of Omeprazole Capsules Ip 20 Mg	No/ A	1200000	Solid	Designated primary packing	By Road (Truck)	73590-58-6
2.	Formulation Of Itraconazole Capsules 100 Mg	No/ A	1200000	Solid	Designated primary packing	By Road (Truck)	-
3.	Formulation Of Lansoprazole 30 Mg Capsules	No/ A	1200000	Solid	Designated primary packing	By Road (Truck)	-
4.	Formulation Of Lansoprazole 15 Mg Capsules (Usp)	No/ A	1200000	Solid	Designated primary packing	By Road (Truck)	-
5.	Formulation Of Itraconazole Capsules 200 Mg	No/ A	1200000	Solid	Designated primary packing	By Road (Truck)	84625-61-6
6.	Formulation Of Omeprazole & Domperidone Capsules Ip	No/ A	1200000	Solid	Designated primary packing	By Road (Truck)	TP70107
7.	Formulation Of Omeprazole 20 Mg + Domperidone 30 Mg Capsules	No/ A	1200000	Solid	Designated primary packing	By Road (Truck)	9010-88–2
8.	Formulation Of Pantoprazole Sodium Capsules Usp 20 Mg	No/ A	1200000	Solid	Designated primary packing	By Road (Truck)	138786-67-1
9.	Formulation Of Enteric Coated Pantoprazole & Domperidone Sustained Release Capsules Ip	No/ A	1200000	Solid	Designated primary packing	By Road (Truck)	57808-66-9
10.	Formulation Of Enteric Coated Rabeprazole with Levosulpiride Capsules	No/ A	1200000	Solid	Designated primary packing	By Road (Truck)	-
11.	Formulation Of Enteric Coated Rabeprazole With Domperidone Capsules	No/ A	1200000	Solid	Designated primary packing	By Road (Truck)	VC17-947
12.	Formulation Of Enteric Coated Pantoprazole with	No/ A	1200000	Solid	Designated primary packing	By Road (Truck)	102625-70-7

	Levosulpiride Caps						
13.	Formulation Of Pantoprazole Sodium Capsules Usp 40 Mg 2 Size	No/ A	1200000	Solid	Designated primary packing	By Road (Truck)	138786-67-1
14.	Formulation Of Esomeprazole Magnesium Delayed Release Capsules 40 Mg Usp	No/ A	1200000	Solid	Designated primary packing	By Road (Truck)	217087-09-7
	Total	**No/ A**	**16800000**				
By-Products							
1	30% HCl Solution	TPA	30.35	Solid	HDPE/Fiber Drum	By Road (Truck)	7647-01-0

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under the E(P) Act/Air Act/Water Act.

6. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. There are 22 schedule -I Species found in buffer zone of the study area **i.e.,** *Accipiter badius* (Shikra), *Lutrogale perspicillata* (Smooth-coated Otter), *Canis aureus* (Jackal), *Paradoxurus hermaphroditus* (Asian palm civet), *Anthracoceros coronatus* (Malabar Pied Hornbill), *Buceros bicornis* (Great Hornbill), *Crocodilus palustris* (Marsh Crocodile), *Daboria russelli* (Russell's Viper), *Haliastur indus* (Brahminy Kite), *Leiopicus mahrattensis* (Yellow-crowned Woodpecker), *Macaca radiata* (Bonnet Macaque), *Naja naja* (Cobra), *Ocyceros griseus* (Malabar grey hornbill), *Pavo cristatus* (Peafowl), *Pericrocotus cinnamomeus* (Small Minivet), *Ptyas mucosa* (Rat Snake), *Python molurus* (Indian Python), *Varanus bengalensis (*Bengal Monitor), *Strix leptogrammica* (Brown Wood-Owl), *Tringa nebularia* (Common Greenshank), *Urva auropunctata* (Small Indian Mongoose), *Urva edwardsii* (Indian Grey Mongoose) for which conservation plan has been submitted to CWW on 29.03.2024

7. The Baseline data collected was done by NABL accredited laboratory Perfact Researchers Pvt Ltd between **1st March 2023** to **31st May 2023**; Ambient air quality results for primary pollutants and specific pollutants as under show that the quality of air in the study area conforms to the NAAQS. **Core Zone**: - The mean value of PM_{10} at two core zone locations ranges from (64.65-66.53 µg/m^3) & $PM_{2.5}$ ranges from (24.47-25.18 µg/m^3), SO_2 ranges from (11.71-12.05 µg/m^3), NO_2 ranges from (21.13-21.75 µg/m^3), CO (0.46-0.48 mg/m^3), VOC (0.26-0.27 mg/m^3), HCl (0.23-0.24 mg/m^3) and Cl_2 (0.28-0.29 mg/m^3) which are within the limits of National Ambient Air Quality Standards (NAAQS).

8. The total water requirement during construction phase is 18 KLD which will be used @ 1 KLD for domestic purposes, 0.6 KLD will be used in flushing, 14.4 KLD will be used in Construction purpose

and 2 KLD will be used in Dust suppression. **Non-Monsoon Water Requirement:** The total water requirement for the operational industry is 205.6 KLD out of which fresh water requirement is 144.8 KLD & treated water is 60.8 KLD. Fresh water will be used @ 10 KLD for domestic purposes, 40 KLD will be used in process for Non EC Pharmaceuticals Formulations, 34 KLD will be used in process for EC products, 4 KLD will be used in Scrubber, 6 KLD for Washing, 48 KLD will be used in Boiler & 2.8 KLD will be used in Gardening. Treated effluent will be used @ 4 KLD for Washing & 50 KLD for Cooling. Treated sewage will be used @ 6.8 KLD will be used in Gardening. **Monsoon Water Requirement:** During the monsoon season the fresh water requirement will decrease from 144.8 KLD to 38.82 KLD. Remaining 105.98 KLD is met by rainwater. The total trade effluent from the production activities shall be 92 KLD. Out of 92 KLD, 22 KLD strong stream from process will be sent to Collection & Neutralization Tank through which 22 KLD of neutralized water will be obtained and then sent to MEE & ATFD of capacity 30 KLD. 70 KLD weak stream from process will be sent to ETP capacity of 100 KLD. 69 KLD of treated effluent will be sent to Bioreactor of capacity 100 KLD from where 35 KLD of treated effluent will be sent to CETP & 34 KLD treated effluent will be sent to RO of capacity 50 KLD. 28 KLD RO permeate along with RO reject of 6 KLD will be obtained. RO reject of 6 KLD is mixed with MEE effluent. 26 KLD condensate from the MEE shall be obtained for reuse, and the concentrates shall be dried in an agitated thin film dryer where the dried salts shall be disposed to TSDF

9. Power requirement will be 1250 kVA which will be sourced from Maharashtra State Electricity Distribution Company Limited (MSEDCL). DG set complying to CPCB shall be installed 1 no. x 500 kVA with acoustic enclosures in compliance with rules in NCR region, these shall be operated only as standby during power failure with stack height of 12 m.

10. **Details of emissions generation and its management**

Details of Flue Gas Stacks

Stack ID	Stack Attached To	Fuel Type	Stack Height (m)	Stack Dia (m)	Velocity (m/s)	APCM	Parameter	Emission Limits in mg/Nm^3
01	DG SET-500 kVA	Diesel	12	0.2	14	Stack with Acoustic Enclosure	PM, SO_2, NOx, CO	PM- 30 mg/Nm^3 SO2-190 mg/Nm^3 NOx-640 mg/Nm^3 CO-150 mg/Nm^3
02	BOILER -5 TPH	Natural Gas	30	0.8	12	Adequate Stack Height	PM	PM- 150 mg/Nm^3

Details of Process Gas Stacks

Stack	Stack	Stack	Flow	Exist	Temp	APCM Detail	Emission Limits

Attached To	Height (m)	Dia (m)	(Nm^3/hr)	Velocity (m/sec)	in K		in mg/Nm^3
Process Stack 1	25	1.00	6.12	7.8	300	2 stage water scrubber followed by Alkali Scrubber	HCl - 10 mg/Nm^3 TVOC - 0.5 mg/Nm^3 SO_2 - 50 mg/Nm^3

11. **Details of Solid waste/ Hazardous waste generation and its management**:

Category	Type of Waste	Unit	Quantity	Treatment Method
			Proposed	
Biodegradable	Organic Waste	kg/day	9.89	Treatment in inhouse organic waste convertor (OWC) and use manure for horticulture development purposes in the premises
Non-Biodegradable	Recyclable Waste (Plastic, paper, wood, glass, etc)	kg/day	3.86	Will be given to authorized recycler
Total (kg/day)			**13.75**	-

Non-Hazardous Waste

1	Packing Waste (Plastic waste)	TPA	10	Sell to authorised Vendor
3	Canteen Sludge	TPA	1.65	Sell to authorized Vendor
4	Office paper Waste	TPA	1	Sell to authorized Vendor
5	Glass Waste	TPA	1	Sell to authorized Vendor
6	M.S. Scrap	TPA	10	Sell to authorized Vendor
7	Wooden Pallets	Nos/Year	500	Sell to authorized Vendor

Hazardous Waste

Sr. No.	Waste	Category (as per HWM Rules, 2016)	Unit	Quantity	Disposal
1	ETP Sludge from wastewater	35.3	TPA	422.4	Collection, Storage, Transportation and final disposal at common CHWTSDF
2	Distillation Residue	20.3	TPA	711.75	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocessing
3	Spent Carbon	28.3	TPA	13.14	Collection, Storage, Decontamination, Transportation followed by incineration/ Co processing.
4	Spent Hyflo	28.3	TPA	8.76	Collection, Storage, Decontamination, Transportation, Reuse / Sale to authorised recycler under Rule 9.
5	Spent Catalyst	28.2	TPA	0.91	Collection, Storage, Transportation and final disposal at common CHWTSDF /Recycler having authorization under Rule 9
6	Liners & used container from packaging	33.1	TPA	100	Collection, Storage, Transportation, Sale to register re-processors/ Co-Processing.
7	Spent Oil/Used Oil	5.1	TPA	0.1	Sale to authorised recycler under Rule 9.
8	Process Residue & waste (from Aqueous ML from process)	28.1	TPA	162	Collection, Storage, Transportation and final disposal at common CHWTSDF/Co processing.
9	Spent Acid	26.3	TPA	5	Collection, Storage, Transportation and final disposal at common CHWTSDF/ Sale to authorised recycler under Rule 9
10	Recovered Solvent / Distilled Solvent	28.6	TPA	765	Collection, Storage, Transportation and final disposal at common CHWTSDF/Co-process site/ Sale to authorised recycler under Rule 9.
11	Off-Specification Drugs / Products / RMs	28.4	TPA	5	Collection, Storage, Transportation and final disposal for Co-processing/CHWTSDF.
12	Date expired, discarded/ Products / RMs	28.5	TPA	5	
13	Spent Solvent	20.2	TPA	75	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocessing/ Sale to authorised recycler under Rule 9.
14	MEE Evaporation Residue	37.3	TPA	66.06	Collection, Storage, Transportation and final disposal at common CHWTSDF.

E-Waste

Name of the Waste	Source	Qty (TPA)	Mode of disposal	Mode of Transport
E-Waste	Office electronics items	0.01	Sell/dispose to authorized vendor	By road

Battery Waste

Name of the Waste	Source	Qty (TPA)	Mode of disposal	Mode of Transport
Battery waste	Used battery	1.0	Sell/dispose to authorized vendor	By Road

Bio-medical Waste

Name of the Waste	Source	Qty (TPA)	Mode of Disposal	Mode of Transport
Soiled Waste	First Aid Centre	0.05	Will be given to CBMWTDF	By Road
Expired or discarded medicine	First Aid Centre	0.05	Will be given to CBMWTDF	By Road
Contaminated Waste (Recyclable)	First Aid Centre	0.005	Will be given to CBMWTDF	By Road
Glassware	First Aid Centre	0.005	Will be given to CBMWTDF	By Road

Plastic Waste

Name of the Waste	Source	Qty (TPA)	Mode of Disposal	Mode of Transport
Plastic Waste	Site Office and Admin	1.00	Will be sold to authorized recycler	By Road

12. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 2.4 Crores (capital) and the Recurring Cost (operation and maintenance) will be about 0.7 Crores, Industry proposes to allocate Rs. 0.6 Crores towards Corporate Environment Responsibility.

Capital Cost		
Sr. No.	**Particulars**	**INR Lakhs**
1	Air management	35
2	Solid waste management	10
3	Wastewater management	170
4	Landscaping / plantation	4.5
5	Rain water harvesting	11

6	Misc. (Health & Safety)	9.5
Total		**240**

Recurring Cost		
Sr. No.	**Particulars**	**INR Lakhs**
1	Air management	5
2	Solid Waste management	20
3	Wastewater management	30
4	Landscaping / plantation	2
5	Rain water harvesting	2
7	Environment Monitoring	6
8	Occupational Health & Safety	5
Total		**70**

13. The PP reported that the project, being in notified industrial area i.e., MIDC, Lote Parshuram which is declared as notified area vide IDC/2173/15137IND-i (B) 27.2.1974 is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

14. Proposed greenbelt area is 3200.32 m^2 of area within plot premises (35.17 % of the plot area).

15. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment officials for the functioning of EMC.

16. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

17. The total cost of the product is INR 20 Crores. During the Construction phase, there will be 30 nos. of employees and during the Operational phase, there will be 70 nos. employee.

18. **Deliberations by the EAC**

During deliberations, EAC discussed the following issues:

- PP submitted the revised water balance for monsoon and non-monsoon and wastewater and treated water characteristics

During Operation Phase: -

Non-Monsoon Water Requirement: The total water requirement for the operational industry is 205.6 KLD out of which fresh water requirement is 144.8 KLD, treated effluent is 54 KLD & treated sewage is 6.8 KLD. Fresh water will be used @ 10 KLD for domestic purposes, 40 KLD will be used in process for

Non-EC Pharmaceuticals Formulations, 34 KLD will be used in process for EC products, 4 KLD will be used in Scrubber, 6 KLD for Washing, 48 KLD will be used in Boiler & 2.8 KLD will be used in Gardening. Treated effluent will be used @ 4 KLD for Washing & 50 KLD for Cooling. Treated sewage will be used @ 6.8 KLD will be used in Gardening.

Monsoon Water Requirement: During the monsoon season the fresh water requirement will decrease from 144.8 KLD to 54 KLD. Remaining is met by rainwater.

The total trade effluent from the production activities shall be 92 KLD. Out of 92 KLD, 22 KLD strong stream from process will be sent to Collection & Neutralization Tank through which 22 KLD of neutralized water will be obtained and then sent to MEE & ATFD of capacity 30 KLD. 70 KLD weak stream from process will be sent to ETP capacity of 100 KLD. 69 KLD of treated effluent will be sent to Bioreactor of capacity 100 KLD from where 35 KLD of treated effluent will be sent to CETP & 34 KLD treated effluent will be sent to RO of capacity 50 KLD. 28 KLD RO permeate along with RO reject of 6 KLD will be obtained. RO reject of 6 KLD is mixed with MEE effluent. 26 KLD condensate from the MEE shall be obtained for reuse, and the concentrates shall be dried in an agitated thin film dryer where the dried salts shall be disposed to TSDF.

- PP submitted the details hazardous waste.

Non-Hazardous Waste:

Sr. No.	Process Waste	Unit	Quantity of Generation	Disposal
1	Packing Waste (Plastic waste)	TPA	10	Sell to authorised vendor
3	Canteen Sludge	TPA	1.65	Sell to authorized vendor
4	Office paper Waste	TPA	1	Sell to authorized vendor
5	Glass Waste	TPA	1	Sell to authorized vendor
6	M. S. Scrap	TPA	10	Sell to authorized vendor
7	Wooden Pallets	Nos/Year	500	Sell to authorized vendor
8	Wet Waste (Garbage)			Shall be converted into compost at site

Hazardous Wastes

Sr. No.	Waste	Category (as per	Unit	Quantity	Disposal

		HWM Rules, 2016)			
1	ETP Sludge from wastewater	35.3	TPA	422.4	Collection, Storage, Transportation and final disposal at common CHWTSDF
2	Distillation Residue	20.3	TPA	711.75	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocessing
3	Spent Carbon	28.3	TPA	13.14	Collection, Storage, Decontamination, Transportation followed by incineration/ Co processing.
4	Spent Hyflo	28.3	TPA	8.76	Collection, Storage, Decontamination, Transportation, Reuse / Sale to authorised recycler under Rule 9.
5	Spent Catalyst	28.2	TPA	0.91	Collection, Storage, Transportation and final disposal at common CHWTSDF /Recycler having authorization under Rule 9
6	Liners & used container from packaging	33.1	TPA	100	Collection, Storage, Transportation, Sale to register re-processors/ Co-Processing.
7	Spent Oil/Used Oil	5.1	TPA	0.1	Sale to authorised recycler under Rule 9.
8	Process Residue & waste (from Aqueous ML from process)	28.1	TPA	162	Collection, Storage, Transportation and final disposal at common CHWTSDF/Co processing.
9	Spent Acid	26.3	TPA	5	Collection, Storage, Transportation and final disposal at common CHWTSDF/ Sale to authorised recycler under Rule 9
10	Recovered Solvent / Distilled Solvent	28.6	TPA	765	Collection, Storage, Transportation and final disposal at common CHWTSDF/Co-process site/ Sale to authorised recycler under Rule 9.
11	Off-Specification Drugs / Products / RMs	28.4	TPA	5	Collection, Storage, Transportation and final disposal for Co-processing/CHWTSDF.
12	Date expired, discarded/ Products / RMs	28.5	TPA	5	
13	Spent Solvent	20.2	TPA	75	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocessing/ Sale to authorised recycler under Rule 9.

14	MEE Evaporation Residue	37.3	TPA	66.06	Collection, Storage, Transportation and final disposal at common CHWTSDF.

Other Wastes

E-Waste

Name of the Waste	Source	Qty (TPA)	Mode of disposal	Mode of Transport
E-Waste	Office electronics items	0.01	Sell/dispose to authorized vendor	By road

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Battery Waste

Name of the Waste	Source	Qty (TPA)	Mode of disposal	Mode of Transport
Battery waste	Used battery	1.0	Sell/dispose to authorized vendor	By Road

Bio-Medical Waste

Name of the Waste	Source	Qty (TPA)	Mode of Disposal	Mode of Transport
Soiled Waste	First Aid Centre	0.05	Will be given to CBMWTDF	By Road
Expired or discarded medicine	First Aid Centre	0.05	Will be given to CBMWTDF	By Road
Contaminated Waste (Recyclable)	First Aid Centre	0.005	Will be given to CBMWTDF	By Road
Glassware	First Aid Centre	0.005	Will be given to CBMWTDF	By Road

Plastic Waste

Name of the Waste	Source	Qty (TPA)	Mode of Disposal	Mode of Transport
Plastic Waste	Site Office and Admin	1.00	Will be sold to authorized recycler	By Road

- PP submitted the Life Cycle assessment & Carbon Sequestration
- PP submitted the emission limit in mg/Nm^3

Stack ID	Stack Attached To	Fuel Type	Stack Height (m)	Stack Dia (m)	Velocity (m/s)	APCM	Parameter	Emission Limits in mg/Nm^3

01	DG SET-500 kVA	Diesel	12	0.2	14	Stack with adequate height	PM, SO_2, NOx, CO	PM- 30 mg/Nm^3 SO2-190 mg/Nm^3 NOx-640 mg/Nm^3 CO-150 mg/Nm^3
02	BOILER-5 TPH	Natural Gas	30	0.8	12	Stack with Adequate Height	PM	PM- 150 mg/Nm^3

- PP submitted the details of CER activities

S. No.	Activity	Highlights of Activities	Year I in INR Lakhs	Year II in INR Lakhs	Year III in INR Lakhs	Total in INR Lakhs
1	Renewable Energy harvesting	Installation of solar lights/ panels and street lights (50 kW) to conserve energy in government schools and the nearest village road.	6.67	6.67	6.66	20
2	Green belt development in Government schools and Village panchayats	Plantation of saplings in nearest schools and in nearest Panchayat ~ 2000 Nos.	13.34	13.34	13.32	40
	Total Cost in INR Lakhs					**60**

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members /domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/

misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance with the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during the implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The expert members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

19. The EAC, after detailed deliberations, recommended the project for the grant of environmental clearance under 7 (ii), subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I:

(i) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii) Stack of 30 m height shall be provided to natural gas fired boiler 5 TPH to disperse the flue gas. Stack height of 12 m shall be provided to Diesel fired DG set of 500 kVA as per CPCB norms.

(iii) Two stage water and alkali Scrubbers system along with stack height of 25 m shall be provided to control process emissions viz., HCl, TVOC and SO_2. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards

(iv) Fresh water requirement from MIDC water supply shall not exceed 145 KLD.

(v) NOC from the Concerned Authority shall be obtained before start of the construction of plant and drawing water from MIDC water source. State Pollution Control Board shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

(vi) The total trade effluent from the production activities shall not exceed 92 KLD. Effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High COD/TDS effluent stream shall be passed through stripper followed by MEE and ATFD. Low COD/TDS effluent stream shall be treated in the ETP comprising primary, secondary and tertiary treatment facility. Out of which, 35 KLD of treated effluent shall be sent to CETP after achieving inlet norms of CETP as per CPCB/SPCB norms. Remaining treated effluent shall be recycled/reused in the process and cooling tower make up. Sewage shall be treated in the STP and treated water shall be reused for horticulture purpose. Treated effluent shall be passed through pit with online monitoring devices such as pH meter, flow meter and TOC analyzer.

(vii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB.

(viii) The green belt has been developed in 3200.32 m^2 (35.17 % of the total plot area, mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(ix) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions by engaging Environment officials. In addition to this, one safety & health officer as per the qualification given in Factories Act, 1948 shall be engaged within a month of grant of EC. The PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(x) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under existing EMP Rs.240 lakhs (Capital cost) and ₹ 70 Lakhs per Annum (Recurring cost)] shall be kept in a separate account and should be audited

annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(xi) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as ETP sludge shall be either sent to TSDF. Spent catalyst shall be sent to Authorized recyclers. Municipal solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development.

(xii) The PP shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(xiii) The project proponent shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21.7.2010 under the provisions of the Environment (Protection) Rules, 1986.

(xiv) The project proponent shall comply with the environment norms for 'Pesticide Industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 446 (E), dated 13.6.2011 under the provisions of the Environment (Protection) Rules, 1986.

(xv) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.

(xvi) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xvii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xviii) The occupational health center for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xix) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xx) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xxi) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

(xxii) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places.

(xxiii) Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Chemicals shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xxiv) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Agenda No. 84.19

Expansion of Chlor-Alkali and Synthetic Organic Chemicals manufacturing unit at Sy. No. 51/1, 2A, 2B, 2C1, 2C2, 2C3, 56/1, 58/1, 59/1, 60, 62/3/2D2, 2C1/A2, 2C1/A3, 2C2/C, 2G/1, 2E, 2F, 1A, 1B, 62A, 62 B, 63, 64, 70/C2, 72/P, Gondiparla village, Kurnool mandal and district, Andhra Pradesh by M/s. TGV SRAAC Limited- Consideration of EC

[Proposal No. IA/AP/IND3/486016/2024; File No. J-11011/84/2016-IA-II(I)]

17. The proposal is for the grant of Environmental Clearance to the Expansion of Chlor-Alkali and Synthetic Organic Chemicals manufacturing unit at Sy. No. 51/1, 2A, 2B, 2C1, 2C2, 2C3, 56/1, 58/1, 59/1, 60, 62/3/2D2, 2C1/A2, 2C1/A3, 2C2/C, 2G/1, 2E, 2F, 1A, 1B, 62A, 62 B, 63, 64, 70/C2, 72/P, Gondiparla village, Kurnool mandal and district, Andhra Pradesh by M/s. TGV SRAAC Limited.

18. The project/activity is covered under Category 'A' of item 4(d) and 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) as the project is located outside the notified industrial area and general condition is also applicable as Interstate boundary between Telangana and Andhra Pradesh is at 1.3 km in northeast direction.

19. The Standard ToR has been granted by the Ministry vide letter File No F.No. J-11011/84/2016-IA II (I) dated 15.03.2023. The PP applied for Environment Clearance in Common Application Form and submitted EIA/EMP Report and other documents. The PP reported that it is an Expansion case under 7(ii). The proposal is placed in 84th EAC Meeting held on 22.8.2024, wherein the Project Proponent and an accredited Consultant M/s. Team Labs and Consultants [Accreditation number. NABET Accreditation No. NABET/EIA/22-25/SA 0218. Valid till 29.01.2025], made a detailed presentation on the salient features of the project and informed the following:

20. The PP reported that the Existing land area is **152.4 Ha** land will be used for proposed expansion. No additional land acquired and no R& R is involved in the Project. The details of products and by–products are as follows:

S. No.	Product Name	Unit	Capacity		
			Existing/ Permitted (Including Phase I)	Proposed (Phase II 20%)	Total after Phase II
I. Chlor-Alkali Plant					
1	Caustic Soda Lye (Or) Flakes	TPD	1220	200	1420
	Potassium Hydroxide Lye (or) Flakes (100 % basis)	TPD			
2	Liquid Chlorine	TPD	720	120	840
II. Chloromethanes					
1	Methyl Chloride	TPD	1.44	0.24	1.68
2	Methylene Chloride	TPD	189.6	31.6	221.2
3	Chloroform	TPD	94.8	15.8	110.6
	Total – Chloromethanes		**285.84**	**47.64**	**333.48**
III. Chlorodifluoromethane					
1	Chlorodifluoromethane (R22)	TPD	10	2	12
IV. Captive Power Plant					
1	Captive Power Plant (Coal based)	MW	76	30	106
2	Power generation Furnace Oil#	MW	31	-----	31
V. Oil and Fatty Acid Division					
1	Oil and Fatty Acid Products (Non-EC Products)	TPD	498	99.5	597.5
By-Products					
I. Chlor-Alkali Plant					
1	Hydrochloric Acid (100%)	TPD	369.05	56.05	425.1
2	Hydrogen Gas	Nm3	341596	55996	397592
3	Sodium Hypochlorite (100% Cl_2 basis)	TPD	18	3	21
4	Barium Sulphate	TPD	10	----	10

5	Potassium Carbonate	TPD	50	----	50
6	Sodium Sulphate	TPD	12	2	14
7	Calcium Hypochlorite (100% Cl_2 basis)	TPD	10	----	10
8	Calcium Sulphate	TPD	2	----	2
II. Chloromethanes Plant					
1	Carbon tetrachloride*	TPD	14.4	2.4	16.8
2	Hydrochloric Acid (100 %)	TPD	56.4	9.4	65.8
III. Chlorodifluoromethane Plant					
1	Hydrochloric Acid (100 %)	TPD	9.92	1.65	11.57

***** *Carbon Tetrachloride (CCl4) generated will be sold as a feed stock to Authorized users/excess will be incinerated. # shall be kept as standby Phase II: Additional 20%*

5. The PP reported that there is no violation case as per the Notification No. S.O.804 (E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that Ministry has issued EC earlier vide letter no F. No. J-11011/84/2016-IA-II (I) dated 02.01.2024 for 20% expansion of Chlor-Alkali plant and synthetic organic chemicals manufacturing unit in favor of **M/s. TGV SRAAC Limited**.

7. The Certified compliance report is obtained from the Integrated Regional Office of MoEFCC, Vijayawada, Andhra Pradesh vide letter no. F. No. SO/VIJ/EPA/EC-A/101/06-82/2024 dated 20.06.2024 in which 4 specific conditions are partially complied regarding EMC, EMP, monitoring of VOCs emissions on monthly basis and monitoring reports to be submitted along with six monthly compliance reports on regular basis, details regarding the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.

8. The PP reported that there are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc., lies within 10 km distance from the project site. There are two reserve forests in the study area. Gadidmadugu RF at 5.5 km in east direction. Pullaiah RF at 9.3 km in southwest direction. There is no Schedule-1 Species within 10 km distance from the project site.

9. The PP reported that Ambient air quality monitoring was carried out at eight locations during March 2024 -May 2024 and the baseline data indicates that ranges of concentrations of PM10 (25-52 µg/m^3), PM2.5 (12-27 µg/m^3), SO_2 (7-14 µg/m^3) and NO_2 (8-26 µg/m^3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLC_S after the proposed project would be 0.45 µg/m^3, 1.91 µg/m^3, and 2.61 µg/m^3 with respect to $PM_{10,}$ SO_X and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

10. The PP reported that The total water requirement is after Phase II expansion is 20284.3 KLD (Existing including Phase I: 16129.1 KLD; and Phase II: 4155.2 KLD) out of which 17973.8 KLD (Existing including Phase I: 15058.4 KLD and Phase II: 2915.4 KLD) will be fresh water and 2310.5 KLD (Existing including Phase I: 1070.7 KLD and Phase II: 1239.8 KLD) is recycled. The required water is drawn from Tungabhadra River through infiltration wells. The unit obtained permission to abstract water from Tungabhadra River in the order of 20MLD. Effluent of 2316.5 m3/day (Existing including Phase I: 1853.8 m3/day and Phase II: 462.7 m3/day) will be treated through “Zero Liquid Discharge” based effluent

treatment system and treated wastewater reused for process, utility make-up and greenbelt development. Rejects from RO used for brine saturation.

11. Power requirement after expansion will be 149.3 MW including existing 128.3 MW and will be met from AP Transco and captive power plant. Existing unit has standby DG sets of capacity 4 x 6.2 MW, 3 x 500 kVA DG sets as standby during power failure. Stack (height 4 m) provided as per CPCB norms to the DG sets of 3 x 500 kVA which will be used as standby during power failure.

12. Existing unit has 1 x 110 TPH, 1 x 100 TPH, 1 x 42 TPH coal fired boilers, 1 x 20 TPH hydrogen gas fired boiler, 1 x 3 TPH oil fired boiler (standby), 1 x 4 TPH oil and hydrogen gas fired boilers. Electro Static Precipitators and a stack with height of 80m, 69m and 55m for 1 x 110 TPH, 1 x 100 TPH, 1 x 42 TPH coal fired boilers respectively are installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm3) and 80m for 1 x 20 TPH hydrogen gas fired boiler and unit has 4 x 3 waste heat recovery boilers, 1 x 20 lc k.cal/hr, 1 x 35 lac k.cal/hr thermo packs, 2 x 55 lac k.cal/hr, 2 x 15 lac k.cal/hr salt furnaces. Additionally, 1 x 120 TPH coal fired boiler will be installed. Electro Static Precipitators and a stack with height of 80m for 1 x 120 TPH coal fired boiler will be installed for controlling the particulate emission within statutory limit of 115 mg/Nm^3 for the proposed boilers and 1 x 55 lac k.cal/hr salt furnace.

13. **Details of fuel:**

S.No	Description	Unit	Existing	Proposed	Total
1	Coal	TPD	402.5	191.6	594.1

14. **Details of Process emissions generation and its management:**

The gaseous emissions from Chlor-Alkali process are Chlorine and Hydrogen Chloride vapors. Scrubbers are provided to neutralize sniff gases effectively. The secondary gaseous pollutant from chloro-alkali plant is hydrogen chloride gas emissions. To avoid emissions in the plant, tail gas vents are connected to a water scrubber and the lean acid formed is used for absorption of Hydrogen chloride gas in absorber.
The gaseous emission from Chloromethane plant is chlorine and hydrogen chloride vapours. HCl gas produced from thermal chlorination unit is used to produce methyl chloride. Excess HCl available is absorbed in HCl absorber to produce 32% HCl. To avoid emissions from HCl absorber, tail gas vents are connected to a tail gas tower followed by organic stripper to remove organics. The gaseous emission from Chlorodifluoromethane plant is HCl which is sent to Hydrochloric acid absorption system, to produce 28 to 30% HCl.

15. **Details of Solid waste/ Hazardous waste generation and its management**

Sludge is generated during brine purification stage. Barium Sulfate and sodium Sulfate is being recovered, which are sold as by products. The sludge generated form effluent treatment plant will be disposed to landfill which contains mostly inorganics. Used silica gel, calcium chloride, Calcium Fluoride, Antimony Pentoxide and Spent Sulphuric Acid are the wastes generated from the Chloromethane and Chlorodifluoromethane process. Used silica gel and calcium chloride are sent to secured landfill within plant premises. Spent sulphuric acid sold as by-product and Calcium Fluoride is sold to hydrogen fluoride manufacturers. Waste oil and used batteries from the DG sets are sent to authorize recyclers. Other solid wastes expected from the

unit are containers, empty drums which are returned to the product seller or sold to authorized buyers after detoxification. Coal ash from boiler is sold to cement/ brick manufacturers.

16. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 6.86 crores (capital) and the Recurring cost (operation and maintenance) will be about ₹4.3 crores per annum. Industry proposes to allocate Rs. 80 Lakhs towards CER.

S.No	Description	Capital (Rs. Lakhs)	Recurring Cost (Rs. Lakhs)
1	Air Pollution Control	395	150
2	Water Pollution Control	43	133.3
3	Noise Pollution Control	100.0	15
4	Environment Monitoring and Management	74	10
5	Occupational Health	27.9	60
6	Green Belt	19.3	8
7	Others (S. Waste)	27	52.7
	Total	**686.2**	**429**

17. Industry has already developed Greenbelt in an area of **58.42 % i.e**., **89.03 Ha** out of **152.4 Ha** of area of the project site.

18. The PP proposed to set up an Environment Management Cell (EMC) to engage Environment officials for the functioning of EMC.

19. The PP reported that the proposed expansion proposal was submitted under 7 (ii) (a) of the EIA notification. The office memorandum (F.No. IA3-22/10/2022-IA. III [E 177258]) guidelines which envisages issue of prior environmental clearance upto 40% of the capacity by exempting Public Hearing. .

20. The PP submitted the Onsite and Offsite disaster management plan in their EIA report.

21. The estimated project cost for Phase II 20% is Rs 100 crores in addition to existing investment of Rs. 1380 crores Total Employment will be 3785 persons as direct and 525 persons indirect after expansion.

22. **Deliberations by the EAC**

During deliberations, EAC discussed the following issues:

(i) PP informed that the unit did not produce Chlorodifluoromethane (R22) so far. The proponent has withdrawn the consent to operate for manufacturing Chlorodifluoromethane (R22) with an assurance to revive the same after obtaining Registration from Ozone Cell under OSD Rules, 2000 for manufacturing R22 as feed stock in PTFE manufacturing etc. PP has to submit action plan to destruct HFC23, which is co-produced alongwith HCFC 22 but having high GWP.

(ii) The Committee noted that the Certified compliance report is obtained from the Integrated Regional Office of MoEFCC, Vijayawada, Andhra Pradesh vide letter no. F. No. SO/VIJ/EPA/EC-A/101/06-82/2024 dated 20.06.2024 in which 4 specific conditions are partially complied regarding EMC, EMP, monitoring of VOCs emissions on monthly basis. It was also highlighted that as per para 4 (vii) of OM dated 11.04.2022 states that "*The project proponent (PP) should have satisfactorily*

complied with the conditions stipulated in the existing EC(s) and satisfactorily fulfilled all the commitments made during the earlier public hearing/consultation proceedings and also the commitments given while granting previous expansion, as may be applicable. This shall be duly recorded in the certified compliance report (CCR) issued by the IRO/CPCB/SPCB, which should not be more than one year old at the time of submission of application." The Committee was of the view that the ATR on the partly complied point was not verified by the IRO. Therefore, the same should be verified and should be recorded in the CCR by the IRO for further consideration of the proposal by EAC (Industry -3).

(iii) Water balance for monsoon and non-monsoon season to be submitted.

Accordingly, proposal was deferred for want of above additional information. Above all additional information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Any Other Item

84.20

Proposed project to produce Light Soda Ash (LSA) of 11,00,000 TPA capacity, 5,00,000 TPA of Dense Soda Ash (DSA) and 2,00,000 TPA Sodium Bicarbonate (SBC) located at near village Bada, Taluka - Mandvi, District - Kutch in the Gujarat by "Greenfield Chemical Complex" of GHCL Ltd- Reconsideration of Environmental Clearance

[Proposal no: IA/GJ/IND3/408164/2022, File No. IA-J-11011/293/2021-IA-II(I)]

1. Ministry has received project proposal seeking environmental clearance to produce Light Soda Ash (LSA) of 11,00,000 TPA capacity, 5,00,000 TPA of Dense Soda Ash (DSA) and 2,00,000 TPA Sodium Bicarbonate (SBC) located at near village Bada, Taluka - Mandvi, District - Kutch in the Gujarat by "Greenfield Chemical Complex" of GHCL Ltd.

2. The proposal was considered by the EAC (Industry-3) in its 80th meeting held on 7th June, 2024 and recommended the proposal for environmental clearance. Further, matter was examined in the Ministry and observed that the large number of written representations received in the ministry and the issues involved. Accordingly, it was decided to undertake site visit by the sub-committee of EAC (Industry -3) to understand the ground situation. Based on the outcome of the same, project may be reconsidered by the EAC for further decision.

3. After detailed deliberations, the EAC constituted a sub-Committee comprising the members namely Dr. Suresh Panwar, Dr. Kishore Malviya and representative of the Ministry

to undertake a site visit and submit the report to the Committee for further consideration of the proposal.

ANNEXURE-II

GENERAL EC CONDITIONS

- No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- The PP shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
- The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- A copy of the clearance letter shall be sent by the PP to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- The PP shall also upload/submit six monthly reports on PARIVESH Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.

- The PP shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at **https://parivesh.nic.in/**. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

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Annexure-I

List of the Expert Appraisal Committee (Industry-3) members participated in Day - I during Video Conferencing (VC) meeting

S. No.	Name of Member	Designation
1.	Prof. (Dr.) A.B. Pandit	Chairman
2.	Dr. Suresh Panwar	Member
3.	Dr. (ER.) Dibakar Swain	Member
4.	Shri Dinabandhu Gouda	Member
5.	Dr. Kishore Malviya	Member
6.	Shri Amit Vashisht	Member
7.	Dr. P. Jagannadha Rao	Member
8.	Prof. (Dr.) Vijay S. Moholkar	Member
9.	Sh. Ashok Kumar Patre	Member
10.	Shri A N Singh	Member Secretary
MoEFCC		
1.	Dr. Kanchan Puri	Scientist-B
2.	Dr. Bhawana Kapkoti Negi	Technical Officer

List of the Expert Appraisal Committee (Industry-3) members participated in Day - II during Video Conferencing (VC) meeting

S. No.	Name of Member	Designation
1.	Prof. (Dr.) A.B. Pandit	Chairman
2.	Dr. Suresh Panwar	Member
3.	Dr. (ER.) Dibakar Swain	Member
4.	Shri Dinabandhu Gouda	Member
5.	Dr. Kishore Malviya	Member
6.	Shri Amit Vashisht	Member
7.	Dr. P. Jagannadha Rao	Member
8.	Prof. (Dr.) Vijay S. Moholkar	Member
9.	Sh. Ashok Kumar Patre	Member
10.	Shri A N Singh	Member Secretary
MoEFCC		
1.	Dr. Kanchan Puri	Scientist-B
2.	Dr. Bhawana Kapkoti Negi	Technical Officer

***

MoM approved by

(Prof. Aniruddha B. Pandit)
Chairman

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)
*****

Dated: 24.10.2024

MINUTES OF THE 87th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING FOR PROJECTS LISTED FROM "PARIVESH 1 PORTAL" HELD ON 21st October 2024

Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003 through Video Conferencing (VC)

Time: 10:30 AM onwards

(i) Opening Remarks by the Chairman

Prof. (Dr.) A.B. Pandit, Chairman welcomed the Committee members and opened the EAC meeting for further deliberations.

(ii) Details of Agenda items by the Member Secretary

The Member Secretary then apprised the Committee about the details of Agenda items to be discussed during this Expert Appraisal Committee (EAC) meeting.

(iii) Confirmation of Minutes of the 86th EAC Meeting held on 30th September & 1st October, 2024.

The EAC noted that the final minutes of the above meeting were issued after incorporating the comments offered by the members and approved by the Chairman.

PARIVESH 1 Portal

Agenda No. 87.1

Proposed expansion project for manufacturing of Marine Chemicals, Fertilizers and Captive Co-Gen Power Plant located at Greater Rann of Kutch, Nr. Village Dhordo, Tal: Bhuj, Dist. Kutch, Gujarat by M/s. Agrocel Industries Pvt. Ltd. - Consideration of Environmental Clearance

[Proposal no: IA/GJ/IND3/277411/2020, F.NO.: IA-J-11011/269/2020-IA-II(I)]

1. The proposal is for the environmental clearance Proposed expansion project for manufacturing of Marine Chemicals, Fertilizers and Captive Co-Gen Power Plant located at Greater Rann of Kutch, Nr. Village Dhordo, Tal: Bhuj, Dist. Kutch, Gujarat by M/s. Agrocel Industries Pvt. Ltd.

2. The project/activity is covered under Category 'A' of item 5 (a)- **Chemical fertilizers** of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended).

3. ToR letter was granted from MoEFCC vide File No. IA-J-11011/269/2020-IA-II(I) dated 07th November 2020. The PP reported that it is an **expansion case**. The proposal is placed in the 87th EAC meeting 21-22 October 2024. Project Proponent and an accredited Consultant, San Envirotech Pvt. Ltd.,

[**Certificate No:** NABET Accreditation Number - NABET/EIA/21-24/SA 0228, valid till 21.03.2025] made a detailed presentation on the salient features of the project and informed the following:

4. Total lease land area of the project is 27762.5 Acres (112350851.43 m^2), out of which, 366650 m2 land used for project activity and Rest of the land is for salt recovery given by the Government of Gujarat on lease base.

5. Unit is engaged in manufacturing of inorganic products - Marine Chemicals, so EC is not applicable to the existing unit. The details of products and capacity as under:

S. No.	Product/Activity (Capacity/Area)	Quantity From	Quantity To	Total	Unit	Other Unit	Mode of Transport / Transmission of Product	Other Mode of Transport / Transmission of Product
(1.)	48% Hydrobromic Acid OR	4000	4333	8333.000	Others	MTPM	Road	
(2.)	Phosphorus Tribromide	15	10	25.000	Others	MTPM	Road	
(3.)	Zinc Bromide (77%) OR	80	1587	1667.000	Others	MTPM	Road	
(4.)	Lithium Bromide OR	00	1667	1667.000	Others	MTPM	Road	
(5.)	Potassium Schoenite (K2SO4.MGSO4.6H2O) OR	750	28833	29583.000	Others	MTPM	Road	
(6.)	Sulphate of Potash OR	00	29583	29583.000	Others	MTPM	Road	
(7.)	Potassium Nitrate OR	00	29583	29583.000	Others	MTPM	Road	
(8.)	Magnesium Hydroxide Mg (OH)2 OR	00	57633	57633.000	Others	MTPM	Road	
(9.)	Magnesium Oxide (MgO) OR	00	57633	57633.000	Others	MTPM	Road	
(10.)	Enriched Mineral Salt Mix	00	16667	16667.000	Others	MTPM	Road	
(11.)	Calcium Bromide (52%) / Solid Powder OR	4000	4333	8333.000	Others	MTPM	Road	
(12.)	Syngenite (K2SO4. CaSO4. H2O) OR	750	28833	29583.000	Others	MTPM	Road	

(13.)	Magnesium Sulphate (MgSO4) OR	00	29583	29583.000	Others	MTPM	Road	
(14.)	Sodium Bromide (45%) / Solid Powder OR	150	1517	1667.000	Others	MTPM	Road	
(15.)	Magnesium Chloride (MgCl2) OR	300	57333	57633.000	Others	MTPM	Road	
(16.)	Captive Co-Gen Power Plant (6.4 MW x 4 Nos.)	00	25.6	25.600	Mega Watt(MW)		Others	Captive
(17.)	Liquid Bromine OR	4000	4333	8333.000	Others	MTPM	Road	

6. The PP reported that there is no violation case as per the Notification No. S.O.804 (E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act

7. There are **no** national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Schedule-I Bird Species Peacock or Indian Peafowl (Pavo Cristatus) was recorded within the study area of 10 km radius. Conservation Plan for the same is attached in EIA/EMP report.

8. Ambient air quality monitoring was carried out at 8 locations during October 2020 – December 2020 and the baseline data indicates the ranges of concentrations as: PM10 (49-72 µg/m3), PM2.5 (10-19 µg/m3), SO2 (06-16 µg/m3) and NO2 (28-45 µg/m3). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

9. After expansion, total water consumption will be 26287 KLD (Fresh Water: 22378 KLD + Recycle water: 3909 KLD). Unit will satisfy its fresh water requirement from desalination of Sea water and rejected Brine water will be used as raw material for bromine recovery
10. After expansion, total industrial wastewater generation will be 460852 KLD, of which 3858 KLD will be close loop recycle. Hence actual w/w generation will be 456994 KLD. Domestic sewage generation will be 51 KLD. Entire effluent will be treated in to ETP (Neutralization and Settler). Effluent from ETP will sent to evaporation pan for recovery of mineral salt, which is one of the raw materials of the Inorganic Chemical and Inorganic Fertilizer products. Generated domestic sewage will be treated in STP and treated sewage will be reused in greenbelt.

11. Total power demand will be 92000 kVA, which is fulfilled by Paschim Gujarat Vij Company Ltd. (PGVCL) and Captive Power Plant of 25.6 MW. Unit also proposed to install stand by D.G. Sets (2102.5 kVA) to meet the power requirement in case of power failure from grid.

12. Details of process emissions from utilities:

S. No.	Source	Fuel	Stack Height(m)	Stack Diameter(m)

(1.)	Boiler-1 (6 TPH)	Lignite/Imported Coal - 26.4 TPD	40	0.45
(2.)	Hot Air Generator-2 (4 lakh kcal/hr)	Wood / Lignite / Imported coal 7.2 TPD	51	1.2
(3.)	D.G Set 1, 2 & 3 (320, 200 & 82.5 kva) (Stand by)	HSD 245 lit/hr.	51	1.2
(4.)	Boiler-5 (45 TPH) salt based products)	Coal 197 TPD	51	1.2
(5.)	Boiler-7 (45 TPH) (salt based products)	Coal 197 TPD	15	0.3
(6.)	Boiler-8 (45 TPH) (salt based products)	Coal 197 TPD	24	0.3
(7.)	HAG-3 (non salt based products) (5 lakh kcal/hr.	Coal 2 TPD	24	0.3
(8.)	HAG-5 (salt based products) (50 lakh kcal/hr.)	Coal 26 TPD	30	0.6
(9.)	HAG-8 (salt based products) (50 Lakh kcal/hr.)	Coal 26TPD	12	0.3
(10.)	DG. SET 4,5&6 (500 kva x 3nos.)	Diesel 630 lit/he.	21	0.3

(11.)	Bromine Plant-1	--	20	0.3
(12.)	Bromine Stripping plant-6	--	20	0.3
(13.)	Bromine Stripping Plant-5	--	20	0.3
(14.)	Bromine Stripping plant-10	--	20	0.3
(15.)	Bromine Stripping plant-15	--	20	0.3
(16.)	Bromine Stripping plant-17	--	20	0.3
(17.)	Bromine Stripping plant-18	--	20	0.3
(18.)	Air dryer for NaBr solid	--	25	0.3
(19.)	Air dryer for LiBr	--	25	0.3
(20.)	Rotary dryer 1 (for SOPM-Schoenite)	--	15	0.3
(21.)	Rotary dryer 2 (for SOP-Sulphate of potash)	--	15	0.3
(22.)	Rotary dryer 4 (for MgSO4)	--	15	0.3
(23.)	Bromine Stripping plant-4	--	20	0.3

(24.)	Boiler-2 (18 TPH)	Lignite/Imported Coal 79.2 TPD	44	0.6
(25.)	Boiler-3 (8 TPH)	LDO/HSD 16.8 TPD	30	0.45
(26.)	Boiler-6 (45 TPH) (salt based products)	Coal 197 TPD	11	0.3
(27.)	Bromine Stripping plant-7	--	20	0.3
(28.)	Bromine Stripping plant-9	--	20	0.3
(29.)	Bromine Stripping plant-13	--	20	0.3
(30.)	Air dryer for CaBr2 solid	--	25	0.3
(31.)	Rotary dryer 3 (for Syngenite)	--	15	0.3
(32.)	Rotary dryer 5 (for (MgOH2)	--	15	0.3
(33.)	Hot Air Generator-1 (2.5 lakh lca;/hr)	Wood / Lignite / Imported coal 7.2 TPD	47	0.6
(34.)	HAG-7 (salt based products) (50 lakh kcal/hr.)	Coal 26 TPD	30	0.6
(35.)	Bromine plant-2	--	20	0.3
(36.)	Bromine Stripping plant-3	--	20	0.3

(37.)	Bromine Stripping plant-8	--	20	0.3
(38.)	Bromine Stripping plant-11	--	20	0.3
(39.)	Bromine Stripping plant-14	--	20	0.3
(40.)	Bromine Stripping plant-16	--	20	0.3
(41.)	Calciner (for MgO)	--	15	0.3
(42.)	Boiler-4 (30 TPH) (non-salt based products)	Coal 131 TPD	51	1.2
(43.)	HAG-4 (salt based products) (4 lakh kcal/hr.	Coal 1.6 TPD	30	0.6
(44.)	HAG-6 (salt based products) (50 lakh kcal/hr.)	Coal 26 TPD	30	0.6
(45.)	Bromine Stripping plant-12	--	20	0.3

13. Details of Solid waste/ Hazardous waste generation and its management

S. No.	Name of Waste	Item	Other Item	Quantity per Annum	Unit	Distance from Site(KM)	Mode of Transport	Other Mode of Transport	Mode of Disposal	Other Mode of Disposal
(1.)	Empty Barrels/Drums/Containers /Bags/Liners	Hazardous Waste		50	Tons	150	Road		Authorized	

		(as per Hazardous and Other Waste Management rules 2016)							Recyclers	
(2.)	Neutralizer Sludge	Hazardous Waste (as per Hazardous and Other Waste Management rules 2016)		700000	Tons	00	Others	Dumper	Others	Use in Syngenite & Potassium Schoenite
(3.)	Fly Ash	Fly Ash		35880	Tons	00	Others	Dumper	Others	Utilize for solar pan bund making nearby project
(4.)	Used Oil	Hazardous Waste (as per Hazardous and Other Waste Management rules 2016)		5	Kilolitre	150	Road		Others	Sell to registered re-processors
(5.)	Spent H2SO4 (70-75%)	Hazardous Waste (as per Hazardous and Other Waste		50800	Tons	00	Others	Pipeline	Others	Captive consumption

		Management rules 2016)								

14. Total Capital Cost for Environmental Management System will be Rs. 5.195 Crores and Recurring Cost will be Rs. 0.95 Crores.
15. Total lease land area of the project is 27762.5 Acres (112350851.43 m^2), out of which, 366650 m2 land used for project activity and Rest of the land is for salt recovery given by the Government of Gujarat on lease base. Project location is in the desert area and greenbelt development at project site is very difficult. We have earmark and try to develop greenbelt area in existing set up in around 51225 m2 by planting soil as well as in leak-proof RCC channel of greenbelt. However, survival rate is very poor so unit has developed greenbelt in nearby village, school area, water reservoir and on hilly area where and it is about 30% of our project area. Also we try to develop additional greenbelt in around 48587 m2 area by way of above method.

16. **Deliberations by the EAC:**

The Committee noted that the proposal was considered by EAC (Industry -3) in its meeting held on 16th & 19th December, 2022, 30th –31st May, 2023 and 30th& 31st January and 1st February 2023. The Committee deferred the proposal want of confirmation from GCZMA or authorized agency of the Ministry with supporting documents regarding the non-requirement of CRZ clearance for the drawl of sea water. Further PP has submitted the copy of GCZMA letter no Env- 10-2023-32-T dated 30th September 2023 stating that the proposed location of M/s Agrocel Industries Pvt. Ltd located at Greater Rann of Kutch near village Dhordo Taluka Bhuj District Kutch is away from CRZ area by 23.5 Km so CRZ Clearance is not required. Accordingly the Committee suggested to obtain the comments of CRZ Division. Further, the Committee suggested to submit the following information :

(i) Conservation Plan for schedule -I species.
(ii) Valid Certified compliance report from the IRO for the existing EC.
(iii) Intake water permission
(iv) Development of revised Greenbelt action plan
(v) Public hearing issues and action plan to address the issues.
(vi) Valid CTO for the existing Unit.

In view of the above, proposal was deferred for want of above said information. Thereafter, information shall be submitted online to the PARIVESH 1 portal for further consideration by EAC

Agenda No. 87.2

Proposed expansion project for manufacturing of Marine Chemicals, Fertilizers, Organic Chemicals & Captive Co-Gen Power Plant located at Survey No. 164, Village: Ratadia, Near, Khavda, Ta. Bhuj, Dist. Kutch, Gujarat-370510 by M/s. Solaris Chemtech Industries Ltd. -Consideration of Environmental Clearance

[Proposal no: IA/GJ/IND3/280064/2020, F.NO.: IA-J-11011/271/2020-IA-II(I)]

1.The proposal is for the p**roposed expansion project for manufacturing of Marine Chemicals, Fertilizers, Organic Chemicals & Captive Co-Gen Power Plant located at Survey No. 164, Village: Ratadia, Near, Khavda, Ta. Bhuj, Dist. Kutch, Gujarat-370510 by M/s. Solaris Chemtech Industries Ltd**.

2.The project/activity is covered under Category 'A' of item 5 (a)- **Chemical fertilizers and** 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended).

3.The PP applied for the ToR vide proposal number no **IA-J-11011/271/2020-IA-II(I)** dated 07 Nov 2020. The PP reported that it is an **expansion case**. The proposal is placed in the 87th EAC meeting 21-22 October 2024. Project Proponent and an accredited Consultant, San Envirotech Pvt. Ltd., [**Certificate No:** NABET Accreditation Number - NABET/EIA/21-24/SA 0228, valid till 21.03.2025] made a detailed presentation on the salient features of the project and informed the following:

4.Total land area of the project is 222578 m2 . Total land is in possession of PP and it is converted for industrial use. No additional land is required for proposed expansion. The PP reported the proposed product details as follows:

S. No.	Product/Activity (Capacity/Area)	Quantity From	Quantity To	Total	Unit	Other Unit	Mode of Transport / Transmission of Product	Other Mode of Transport / Transmission of Product
(1.)	Magnesium Chloride (MgCl2) OR	00	57333	57333.000	Others	MTPM	Road	
(2.)	Sodium Bromide (Solid Powder) OR	00	1667	1667.000	Others	MTPM	Road	
(3.)	Di Bromo Neo Pentyl Glycol (DBNPG) OR	00	833	833.000	Others	MTPM	Road	
(4.)	Liquid Bromine	1700	1375	3075.000	Others	MTPM	Road	
(5.)	TBBA - Tetra Bromo Bisphenol A OR	850	00	850.000	Others	MTPM	Road	
(6.)	HBr in TBBA (33% w/w) OR	850	00	850.000	Others	MTPM	Road	
(7.)	Potassium Sulphate (SOP) OR	00	29583	29583.000	Others	MTPM	Road	
(8.)	Potassium Nitrate (KNO3) OR	00	29583	29583.000	Others	MTPM	Road	
(9.)	Magnesium Hydroxide (Mg(OH)2) OR	00	57333	57333.000	Others	MTPM	Road	
(10.)	Magnesium Oxide (MgO) OR	00	57333	57333.000	Others	MTPM	Road	

(11.)	Enriched Mix Mineral Salt	00	16667	16667.000	Others	MTPM	Road	
(12.)	Zinc Bromide (75%) OR	00	1667	1667.000	Others	MTPM	Road	
(13.)	Tri Bromo Neo Pentyl Alcohol (TBNPA) OR	00	833	833.000	Others	MTPM	Road	
(14.)	n - Propyl Bromide OR	270	417	687.000	Others	MTPM	Road	Captive
(15.)	n - Butyl Bromide OR	270	417	687.000	Others	MTPM	Road	
(16.)	Calcium Bromide (Solid Powder) OR	00	1667	1667.000	Others	MTPM	Road	
(17.)	2,4,6 Tri Bromo Phenol (TBP) OR	00	833	833.000	Others	MTPM	Road	
(18.)	Hydrobromic Acid (48%)	180.0	2037	2217.000	Others	MTPM	Road	
(19.)	Syngenite (K2SO4.CaSO4.H2O) OR	00	29583	29583.000	Others	MTPM	Road	
(20.)	Sodium Bromide (45%) OR	00	1667	1667.000	Others	MTPM	Road	
(21.)	6 - Chloro Hexanone	5.0	00	5.000	Others	MTPM	Road	
(22.)	Deca Bromo Diphenyl Ethane (DBDPE) OR	00	833	833.000	Others	MTPM	Road	
(23.)	Captive Co - Gen Power Plant	7.675	25.6	33.275	Mega Watt(MW)		Others	Captive
(24.)	Potassium Schoenite (K2SO4.MgSO4.6H2O) OR	00	29583	29583.000	Others	MTPM	Road	
(25.)	Lithium Bromide OR	00	1667	1667.000	Others	MTPM	Road	
(26.)	n -Propyl Bromide	270	417	687.000	Others	MTPM	Road	
(27.)	Magnesium Sulphate (MgSO4) OR	00	29583	29583.000	Others	MTPM	Road	

(28.)	Calcium Bromide (CaBr) (52%) OR	00	1667	1667.000	Others	MTPM	Road

5.The PP reported that there is no violation case as per the Notification No. S.O.804 (E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act

6.There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Schedule-I Bird Species Peacock or Indian Peafowl (Pavo Cristatus) was recorded within the study area of 10 km radius. Conservation Plan for the same is attached in EIA/EMP report.

7. Ambient air quality monitoring was carried out at 8 locations during October 2020 – December 2020 and the baseline data indicates the ranges of concentrations as: PM10 (46-80 µg/m3), PM2.5 (18-39 µg/m3), SO2 (07-16 µg/m3) and NOx (10-21 µg/m3). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

8. At present, the total fresh water requirement (Industrial + Domestic + Greenbelt) is 31493 KLD. After expansion, total water requirement will be 91316 KLD, of which 9614 KLD will be fresh water demand, 4101 KLD will be recycle/treated water and 77601 KLD Brine water. Water requirement will be for Industrial (91232 KLD), Domestic (40 KLD) & Greenbelt (44 KLD) purposes.

9. After expansion, total industrial wastewater generation will be 86032 KLD, of which 3596 KLD will be close loop recycle. Hence actual w/w generation will be 82436 KLD. Major source of wastewater generation will be process effluent (75895 KLD). Additional sources of wastewater streams will be scrubber (30.0 KLD), stripper washing (5811 KLD), cooling bleed off (810 KLD), and boiler blow down and Condensate water (470 KLD). Domestic sewage generation will be 35.0 KLD.

10. Total power demand will be 32000 kVA, which is fulfilled by Paschim Gujarat Vij Company Ltd. (PGVCL) and Captive Power Plant of 33.275 MW. Unit has already installed stand by D.G. Sets of 500 kVA & 1735 kVA and also proposed to install additional stand by D.G. Sets of 500 kVA x 3 Nos. to meet the power requirement in case of power failure from grid.
11. **Details of Process emission generation and its management:**

S. No.	Source	Fuel	Stack Height(m)	Stack Diameter(m)
(1.)	D.G Set (1735 KVA)	HSD 400 Lit/hr.	30	0.3
(2.)	Boiler (45 TPH)	Imported Coal 189 TPD	60	1.2
(3.)	Boiler (45 TPH)	Imported Coal 189 TPD	60	1.2
(4.)	Boiler (45 TPH)	Imported Coal 189 TPD	60	1.2
(5.)	HAG-2 (Salt based products) 4 Lakh Kcal/hr.	Coal 1.6 TPD	24	0.3

(6.)	HAG-3 (Salt based products) 50 Lakh Kcal/hr.	Coal 26 TPD	30	0.6
(7.)	HAG-5 (Salt based products) 50 Lakh Kcal/hr.	Coal 26 TPD	30	0.6
(8.)	HAG-6 (Salt based products) 50 Lakh Kcal/hr.	Coal 26 TPD	30	0.6
(9.)	D.G Set-4, 5 & 6 (500 KVA x 3 nos.)	Diesel 630 lit/hr.	21	0.3
(10.)	Bromine Plant-1	--	30	0.3
(11.)	Bromine Plant-2	--	30	0.3
(12.)	Bromine ETP Tank	--	17	0.3
(13.)	Chlorine Charging Station	--	20	0.3
(14.)	Bromine Plant-3	--	20	0.3
(15.)	Bromine Plant-5	--	20	0.3
(16.)	N Propyl Bromide	--	20	0.3
(17.)	Hydrobromic Acid	--	30	0.3
(18.)	ZnBr/LiBr/CaBr/NaBr	--	30	0.3
(19.)	HBr in TBBA	--	30	0.3
(20.)	Process reactor of TBP	--	30	0.3
(21.)	Process reactor of DBDPE	--	30	0.3
(22.)	Rotary Dryer-4 (for MgSO4)	--	15	0.3
(23.)	D.G Set (500 KVA)	HSD 150 Lit/hr.	12	0.3
(24.)	Air Dryer for CaBr2 solid	--	25	0.3
(25.)	Air Dryer for NaBr Solid	--	25	0.3
(26.)	Air Dryer for LiBr	--	25	0.3
(27.)	Rotary Dryer-5 [for Mg(OH)2]	--	15	0.3
(28.)	Calciner (for MgO)	--	25	0.3
(29.)	Boiler (30 TPH) (non-salt based products)	Coal 131 TPD	47	1.2
(30.)	Process reactor of DBNPG	--	30	0.3
(31.)	Boiler (15.0 TPH)	Imported Coal - 63 TPD	63	0.9
(32.)	HAG-1 (non-salt based products) 5 Lakh Kcal/hr.	Coal 2 TPD	24	0.3

(33.)	HAG-4 (Salt based products) 50 Lakh Kcal/hr.	Coal 26 TPD	30	0.6
(34.)	Bottling Plant	--	32	0.3
(35.)	Bromine Plant (HBr, n-PBr, n-BBr & 6 CHx)	--	14	0.3
(36.)	TBBA Plant	--	30	0.3
(37.)	Bromine Plant-4	--	20	0.3
(38.)	Boiler (45.0 TPH)	Imported Coal-189 TPD	60	1.2
(39.)	Process reactor of TBNPA	--	30	0.3
(40.)	Rotary Dryer-3 (for Syngenite)	--	15	0.3
(41.)	Boiler (45 TPH)	Imported Coal 189 TPD	60	1.2
(42.)	Rotary Dryer-1 (for SOPM-Schoenite)	--	15	0.3
(43.)	Rotary Dryer-2 (for SOP-Sulphate of Potash)	--	15	0.3

12. **Details of Solid waste/ Hazardous waste generation and its management:**

S. No.	**Name of Waste**	**Item**	**Other Item**	**Quantity per Annum**	**Unit**	**Distance from Site(KM)**	**Mode of Transport**	**Other Mode of Transport**	**Mode of Disposal**	**Other Mode of Disposal**
(1.)	ETP Sludge	Hazardous Waste (as per Hazardous and Other Waste Management rules 2016)		198000	Tons	115	Road		Treatment, Storage and Disposal Facility (TSDF)	

(2.)	ETP Sludge From Bromine Plant	Hazardous Waste (as per Hazardous and Other Waste Management rules 2016)		600	Tons	115	Road		Treatment, Storage and Disposal Facility (TSDF)	
(3.)	Discarded Containers/Liners/Bgas	Hazardous Waste (as per Hazardous and Other Waste Management rules 2016)		9	Tons	150	Road		Others	Sell to Registered Recyclers.
(4.)	Used Oil	Hazardous Waste (as per Hazardous and Other Waste Management rules 2016)		35.2	Kilolitre	150	Road		Others	Sell to registered re-processors
(5.)	Process Sludge	Hazardous Waste (as per Hazardous and Other Waste		792	Tons	115	Road		Others	Sent to CHWIF

		Management rules 2016)								
(6.)	Fly Ash	Fly Ash		1500	Tons	50	Road		Others	Send to brick manufacturer/cement manufactures

13. Total Capital Cost for Environmental Management System will be Rs. 7.335 Crores and Recurring Cost will be Rs. 1.445 Crores.
14. Rs. 5.0 Lakhs per annum has been allocated for occupational health and safety of workers.
15. PP proposes to allocate Rs. 150.0 Lakhs (0.75% of project expansion cost) towards Corporate Social Responsibility, which is as per the OM of MoEFCC.

16. **Deliberations by the EAC:**

The Committee noted that the proposal was considered by EAC (Industry -3) in its meeting held on 16th & 19th December, 2022, 30th –31st May, 2023 and 30th& 31st January and 1st February 2023. The Committee deferred the proposal want of **c**onfirmation from GCZMA or authorized agency of the Ministry with supporting documents regarding the non-requirement of CRZ clearance for the drawl of sea water. Further PP has submitted the CRZ demarcation study along with high tide line and low tide line for the drawl of sea water carried out by NCSCM one of the authorized agency of for the purpose of said work. Accordingly the Committee suggested to obtain the comments of CRZ Division. Further, the Committee suggested to submit the following information :

(i) Conservation Plan for schedule -I species.
(ii) Valid Certified compliance report from the IRO for the existing EC.
(iii) Intake water permission
(iv) Development of revised Greenbelt action plan
(v) Public hearing issues and action plan to address the issues.
(vi) Valid CTO for the existing Unit.

In view of the above, proposal was deferred for want of above said information. Thereafter, information shall be submitted online to the PARIVESH 1 portal for further consideration by EAC

Agenda No. 87.3

Amendment of EC for addition of adjacent plot for Manufacturing of Synthetic Organic Chemical products (Dyes & Dyes Intermediates) located at Plot No. 56/B-2, Phase-I, GIDC-Vatva, Ahmedabad, Gujarat- 382445 by M/s. Huechem Global (Formerly known as M/s. Laakoona Reactions) - Amendment of EC

[Proposal No.: IA/GJ/IND3/298667/2023, File No.: IA-J-11011/170/2023-IA-II(I)

i. The Project Proponent and the accredited Consultant M/s. Perfact Enviro Solutions Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:(NABET Registered NABET/EIA/2225/RA0284 (Rev. 01) valid up to 26.11.2025).

ii. The proposal is for Amendment in Environmental Clearance to the project, "Addition of adjoining Plot No. 55/2/B with existing Plot No. 56/B-2 for Synthetic Organic Chemical products (Dyes & Dyes Intermediates)" at Plot no. 56/B-2 and 55/2/B, Phase - 1, GIDC Vatva, Ahmedabad- 382445, Gujarat by M/s. Huechem Global (Formerly known as M/s. Laakoona Reactions). The Transfer of EC and name change from M/s. laakoona Reactions to M/s. Huechem Global has been granted to M/s. Huechem Global vide File No. : SEIAA/GUJ/EC/5(f)/872/2020 dated 12.08.2024.

iii. The project proponent has requested for amendment in EC vide EC letter No. SEIAA/GUJ/EC/5(f)/872/2020 dated 07.07.2020 with the details here as under:

S. No.	Plant/Equipment/ Facility	Existing Configuration	Proposed Configuration	Final configuration after Amendment	Remarks if Any
1	Request for addition of plot no. in EC Subject, Para 2, by addition of adjacent plot i.e plot no. 55/2/B	Project address: Plot no. 56/B-2, Phase - 1, GIDC Vatva, Ahmedabad- 382445, Gujarat	Project address: Plot no. ***55/2/B*** Phase - 1, GIDC Vatva, Ahmedabad- 382445, Gujarat	Project address: Plot no. 56/B-2 & ***55/2/B*** Phase - 1, GIDC Vatva, Ahmedabad- 382445, Gujarat	Addition of plot no. ***55/2/B*** with existing plot 56/B-2
2	Condition no. 112	The unit shall develop green belt within premises as per the CPCB guidelines, However, if the adequate land is not available within the premises, the unit shall take up adequate plantation on road sides and suitable open areas in GIDC estate or any other open areas in consultation with the GIDC I GPCB and submit an action plan of plantation for next three years to the GPCB.	To comply with the existing condition of EC unit to purchase a new adjacent land having plot area 3681 m^2. And as per the guidelines and unit falls under CPA unit will maintain 40% greenbelt of total plot area. (Existing plot area: 2636 m^2 + Proposed plot area: 3681 m^2 = Total plot area: 6317 m^2) i.e 2527 m^2	40% greenbelt of total plot area will be maintained	–
3	Plot area, Greenbelt area:	2636 m^2 0 m^2	3681 m^2 2527 m^2	6317 m^2 2527 m^2	–
4	Production	No change			

iv. The project, "Addition of adjoining Plot No. 55/2/B to the with existing Plot No. 56/B-2 for Synthetic Organic Chemical products (Dyes & Dyes Intermediates)" is listed at S.No. 5(f) of the Schedule of Environment Impact Assessment (EIA) Notification under cat "B" but the project is being appraised at Central Level by Expert Appraisal Committee (EAC) as Cat "A" project as the Project located in Critically Polluted Area of GIDC Vatva, Gujarat.

v. State Level Environment Impact Assessment Authority, Gujarat had issued EC earlier vide letter no. SEIAA/GUJ/EC/5(f)/872/2020 dated 07.07.2020. Existing land area as per EC is 2636 m^2, proposed additional land area is 3681 m^2, Total area after expansion will be 6317 m^2. Industry will develop green belt in an area of 40% i.e., 2527 m^2 out of total area of the project (6317 m^2).

vi. **Deliberations by the EAC:**

i. The Committee noted that the Transfer of EC and name change from M/s. laakoona Reactions to M/s. Huechem Global has been granted to M/s. Huechem Global vide File No. : SEIAA/GUJ/EC/5(f)/872/2020 dated 12.08.2024. further it was noted that PP has provided 20% greenbelt within the plant premises against the 40% greenbelt. Whereas project is located in CPA. It was also noted that PP has proposed to use land of school for greenbelt development which seems that PP wants to transfer the compliance obligation to the school. The committee suggested that it is not appropriate to transfer the compliance obligation to the educational institute and hence PP shall develop the remaining greenbelt within the plant premises.

ii. The PP shall revise the layout plan to include the 33% greenbelt within the plant premises.

iii. PP has not submitted point wise compliance report as OM dated 31.10.2019. Therefore, PP shall provide quantified and specific compliance and action plan for the additional safeguard measures prescribed in the Ministry's O.M. dated 31.10.2019 for critically and severely polluted areas.

Accordingly, proposal was deferred for want of above said information. Thereafter, information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Any Other Item(s)

Item No. 1

Proposed project to produce Light Soda Ash (LSA) of 11,00,000 TPA capacity; 5,00,000 TPA of Dense Soda Ash (DSA) and 2,00,000 TPA Sodium Bicarbonate (SBC) located at near village Bada, Taluka – Mandvi, District – Kutch in the Gujarat by "Greenfield Chemical Complex" of GHCL Ltd. – Reconsideration of Environmental Clearance

[Proposal No.: IA/GJ/IND3/408164/2022, File No.: IA-J-11011/293/2021-IA-II(I)]

1. **Deliberations by the EAC:**

The proposed production of Light Soda Ash (LSA) of 11,00,000 TPA capacity, 5,00,000 TPA of Dense Soda Ash (DSA) and 2,00,000 TPA Sodium Bicarbonate (SBC) located at near village Bada, Taluka - Mandvi, District - Kutch in the Gujarat by "Greenfield Chemical Complex" of GHCL Ltd.- Site Visit Report

As per minutes of the 84th Expert Appraisal Committee (Industry-3) meeting held during 21st - 22nd August, 2024, a site visit of **"Greenfield Chemical Complex" of GHCL Ltd.** was undertaken by the sub-Committee comprising Dr. Suresh Panwar, Dr. Kishore Malviya and Sh. A N Singh, Scientist F, Ministry of Enonment, Forest & Climate Change to assess the existing environmental scenario of the proposed project site.

The Sub-Committee alongwith Dr. Yogesh Kumar, Scientist – C, IRO, MoEF&CC, Gandhinagar and Mr Naresh Chaudhari, GPCB RO Kutch (West) visited the site of **"Greenfield Chemical Complex" of GHCL Ltd.** on 09.10.2024.

(A) **The following officials of GHCL Ltd. were present at site during inspection:**

1. (A) Mr N N Radia- COO- GHCL
2. Mr Jayesh Patel- Projected Head GHCL
3. Mr Malav Dalwadi- CEO T R Associates and Environment Pvt Ltd.
4. Mr Jay Ram- Environmental Engineer GHCL

At the outset, Officials of **M/s. GHCL Ltd. welcomed the Sub-committee and** briefed the Sub-Committee about the proposed project, location of unit, land acquisition status, layout map, entry and exit of the proposed plant area, seawater intake and outfall pipeline area, proposed air emissions control system, effluent management system, greenbelt etc. The Sub-Committee visited the project site and had general round of the proposed project site, outfall point.

A. Background

(i) Project location

The proposed project site is located near village Bada Village in Mandavi Taluka, District Kutch, Gujarat, which is geographically located at the Arabian Sea Coast off Bada Village. It is located about 70 km from district headquarter Bhuj, 25 km from Mandavi and the road connectivity of Bada Village through NH 41 which is connecting Mandavi and Naliya.

(ii) The details of various proposed products to be manufactured are as follows:

Sr. No.	Name of the Product	Production Capacity (MT/Month)	CAS Number	End use
1	Light Soda Ash	11,00,000 TPA	497-19-8	Manufacturing of glass, usage in chemical industry, paper and detergent manufacturing, and food industry
2	Dense Soda Ash	5,00,000 TPA	497-19-8	
3	Sodium bicarbonate	2,00,000 TPA	144-55-8	
Captive Co-generation Power plant Steam (CFBC boilers)			120 MW	
Emergency DG Set			5 MVA	
Note- The production capacities are planned in phased manner and for Phase 1 production capacity for LSA: 5,50,000 TPA, Dense Soda Ash: 2,50,000 TPA, SBC: 1,00,000 TPA and 60 MW for Captive Co-generation Power plant.				

The proposed project also involves sea water intake pump house of 16 x 10^5 m^3/day (2x 8 x 10^5 m^3/day) and Effluent disposal facility of 15.8 x 10^5 m^3/day (2x 7.9x 10^5 m^3/day).

The soda ash process is in principal based on the well known (solvay) ammonia process.

(iii) Plot Area

As per EIA report, total plot area required for the proposed project is 546 ha. Break up of land and its acquisition details are as given below:

S.N.	Type of Land	Total Land Sanctioned (Ha)	Land Acquired	Remaining land acquisition under finalisation	Total acquired /finalisation	Remaining land acquisition under process
1	Government Land	101.6351 (Letter from Industry Centre has been submitted	76.9669 (Letter from Collector to GHCL for	24.6682	101.6351	--

		for allotment of land)	acquired plot)			
2	Private Land	444.6849	298.5911 (M/s GHCL has acquired)	23.3502	321.9413	122.7357
		546.32	375.558	48.0184	423.5764	122.74

It is proposed that out of 546.32 ha land, area earmarked for greenbelt is 180 .2856 ha (33 %).

As per proposal, M/s GHCL will withdraw water from two intake locations and disposal of effluent at two outfall locations and length of sea water intake and outfall effluent disposal is as given below:

- **(i) Intake pipeline 1 length is 1381.99 m.**
- **(ii) Intake pipeline 2 length is 1388.64 m**
- **(iii) Outfall pipeline 1 length is 2770.17 m**
- **(iv) Outfall pipeline 2 length is 3281.88 m**

It is reported that Pipelines will be laid through micro tunnelling. The pipelines for sea water intake and effluent disposal will be laid in a safe manner so that sand dunes stretch between the plant boundary and respective land fall points (LFP) are protected without any disturbance to their natural appearance and stability.

GCZMA recommendations

Forest & Environment Department, Government of Gujarat vide file no ENV/10/2021/184/T-Cell dated 26th December, 2023 has conveyed the GCZMA recommendations for grant of CRZ clearance for seawater intake and effluent disposal facilities. Baseline Marine Environmental Assessment, Effluent Dispersion Modeling Sand Dune Morphology study have been carried out by CSIR, NIO, Goa, Mumbai. It is reported that as per findings, suitable corridor for laying seawater intake and outfall were identified. Coast near site is stable based on satellite image analysis and sand dunes are found to be stable and suitable for tunnelling activities. A study on status survey and conservation plan for sea turtles along Mandavi Taluka of Bhuj, Gujarat was conducted by Zoological Survey of India and submitted its report in April, 2019. It is reported that Mandvi taluka is reported to have maximum sandy beaches and no presence of mangroves. The Kutch coastlines reported to have stabilized dunes specially around Mandavi. It is reported that no sea turtle nest/ fresh crawl marks were observed along the shore /beach surveyed. It is also reported that there is no existence of mangroves in proposed project area along route of the proposed lying intake and outfall pipelines and there would not be any impact on mangroves due to proposed activities.

Forest Clearance :

Regional Office, Gandhinagar, MoEF&CC vide letter dated 04.01.2024 has granted final (stage - II) approval of Central Government under Forest (Conservation) Act, 1980 for proposed diversion of 0.9689 ha un class forest land for laying part of sea water intake and effluent disposal pipeline and passage for related construction pipeline and passage for construction equipment movement in Kachchh District. One of the conditions stipulated is compensatory afforestation shall be taken up by the Forest Department over 2.00 ha de-graded forest land at Village Dhokda, Taluka Mandavi, District Kuchchh at the cost of user agency.

NABET-accredited consultant

Initially EIA-EMP report for the proposed **Greenfield Chemical Complex of M/s GHCL Ltd.** was prepared by CSIR, NEERI. Further based on recommendation of the EAC (Industry -3), EIA-EMP report was updated and validated by QCI-NABET Environmental Consultant for item 4 (e) category A of schedule of EIA Notification 2006, namely by M/s T R Associates. NABET-accredited consultant has carried out additional 3 months data collection as well as additional 1 month data to validate the existing study and also submitted the undertaking that they have verified the EIA/EMP report and prepared an addendum report describing findings and observations. It was also presented that they have not observed any significant deviation in the EIA report prepared by the national repute organisation NEERI.

Conservation of Ecology and Biodiversity

As per report prepared by Gujarat Institute of Desert Ecology, the project site does not fall in 10 km periphery of any protected areas such as National Park or Sanctuary or Eco-sensitive Zone. Major landuse land cover in the study area observed to be waste land, rain fed agriculture land, water bodies, Arabian sea and sand dunes and transport network. Due to sandy nature of shoreline the mangrove system is found to be absent at project site.

Approval of conservation plan for schedule – 1 species :

Chief Wildlife Warden, Gujarat vide letter no WLP/32/A/50-52/2023-24 dated 24.04.2023 has granted approval of conservation plan of selected schedule -1 species for greenfield project of M/s GHCL at Bada Village, Mandavi, Kutch, Gujarat. The Conservation plan of Rs. 136.50 Lakhs has been approved which includes components of Habitat Conservation, Protection and improvement; Research and Monitoring; Education and Awareness; Miscellaneous and monitoring.

Environmental Management Plan

1. **Details of process emissions generation and its management:**

SR.NO.	Stack attached to	Capacity	Height of the stack (m)	Fuel & its Consumption	Expected Pollutant	APC System	GPCB Limit
1	CPP with flue gas desulphurization CFBC Boiler (6 Nos.)	150 TPH	130 m	Imported Coal/Lignite/ Pet coke (Imported Coal: 13,14,000 TPA, Lignite :19,71,000 TPA,	SPM SO_2 NO_2 Hg	Individual ESP with each Boiler with desulphurisation	PM ≤ 30 mg/Nm^3 SO_2 ≤ 100 mg/Nm^3 NO_2 ≤ 100

				Pet coke: 9,12,500 TPA)			mg/Nm^3 Hg ≤ 0.03 mg/Nm^3
2	D G Set (2/3 Nos.)	5 MVA	30 m	HSD (60 KL)	HC CO PM NO_x	Retrofitting	NOx 710 ppmv NMHC 100 mg/Nm3 PM 75 mg/Nm3 CO 150 mg/Nm3
3	Lime Kiln 1		68 m	Coke or Briquette or Anthracite (Coke - 1,30,000 TPA, Briquette- 1,55,000 TPA, Anthracite - 1,10,000 TPA)	SPM SO_2 NO_2	Scrubber and Dust Collector system	SPM ≤ 150 mg/Nm^3 SO_2 ≤ 100 ppm NO_2 ≤ 50 ppm
4	Lime Kiln 2		68 m			Scrubber and Dust Collector system	
5	Lime Kiln 3		68 m			Scrubber and Dust Collector system	
6	Lime Kiln 4		68 m			Scrubber and Dust Collector system	
7	Lime Kiln 5		68 m			Scrubber and Dust Collector system	
8	Lime Kiln 6		68 m			Scrubber and Dust Collector system	

SR.NO.	**Stack attached to**	**Height of the stack (m)**	**Expected Pollutant**	**APC System**
1	Ammonia Recovery system	42 m	Ammonia	Water scrubber followed by acid aquas solution

2	Lime grinding system / Slaker	65 / 20 m	PM / Water vapor	Bag filter / Adequate stack height
3	Calciner unit	37 m	PM	Scrubber, Bag filter
4	Densification	43 m	PM	Scrubber
5	Sodium Bi-Carbonate Unit	30 m	PM	Bag filter
6	Lime Kiln	Closed system	PM	Scrubber and Wet ESP

2. **Details of Solid Waste/ Hazardous Waste Generation and Its Management**:

Sr. No.	Type of Waste	Category	Quantity	Mode of Disposal
1	Settled Sludge from treatment of effluent generated from captive power plant & RO/DM Plant	35.3	1.0 MT/Annum	Collection, storage and disposal at approved TSDF site
2	Used Oil	5.1	12 KL	Collection, storage and used within premises as a lubricant / sold to registered recycler
3	Discarded Drums and Bags	33.1	6.45 MT/Annum	Collection, storage & sold to authorized vendor
4	Spent Ion exchange resin	35.2	3000 Lit/Annum	Collection, storage and disposal at approved TSDF site
5	Used Cotton	33.2	5 MT/Annum	Collection, storage and disposal at approved CHWIF site
6	Lead acid Batteries	Schedule-IV (17)	5 MT	Collection, storage & sold to authorized agency through auction
7	E-Waste	Schedule-I of E-Waste (Management) Rules, 2022	5 MT/ Annum	Collection, storage & sold to authorized agency through auction
8	Plastic Waste	-	2295 MT/Annum	Collection, Storage and Disposal to CPCB/SPCB authorized recyclers under

				EPR of Plastic Waste Management
9	Bio-medical Waste	-	0.035 MT/Annum	Collection, storage and disposal at as per Bio-medical Waste Management Rules, 2016
10	Construction and Demolition Waste	-	20 TPD	Collection, storage and utilize internally for area filling, road making etc.

Non-Hazardous Solid Waste Details

Sr. No.	Type of Waste	Source of Generation	Quantity	Mode of Disposal
1	STP sludge	STP	1152 MT/Annum	Reused as Manure in Greenbelt Development
2	Kitchen Waste	Canteen	0.01 MT/Day	Collected and composted in Composter and further used as manure for gardening in the premises
3	Ash (Fly ash & Bottom Ash)	Boiler	2726.847 TPD	Collection in silo, storage & sold to cement Manufacturing/ Brick Manufacturing
4	Limestone rejects	Desulphurization Process	1,00,000 MT/Annum	Collection and reused in Boiler for desulphurization and as a sweetener in cement industry, road making, pavement etc.

3. Wastewater management :

The liquid effluents from the soda ash process includes wastewater from distillation, brine purification and cooling waters from lime kiln gas washers, absorption, distillation towers and calcination. Wastewater shall be treated and solids will be separated in the Effluent Treatment Plant. The treated and diluted effluents will be disposed off into Arabian sea at designated point as per dispersion modelling studies and recommendation of SCZMA. Online pH, temperature, flow meter, SS and TOC analyser shall be provided for online monitoring and records shall be maintained. Sewage will be treated in the STP and treated water will be recycled for horticulture purpose.

4. Capital Cost and recurring cost earmarked for EMP and its break up is as given below:

S.N	EMP			Capital cost in Rs Crore	Recurring cost Crore per annum
		Components	Cost		
1	Air Pollution	Flue Gas Emissions Individual ESP with 6 No. Boiler Scrubber and Dust Collector system with 6 No. Lime Kiln	12.03	89.280	1.5
		Process Gas Emissions Water Scrubber with Ammonia Recovery system (Including 2 no of stack)	2.70		
		Bag Filters & Scrubbers	11.45		
		ESP- CFBC	30		
		Dust Suppression& Bed Ash System(Fly ash management) including Wind Screen	6.2		
		Various Stacks	26		
		Dry Fog system	0.9		
2	Water Pollution	ETP & STP	14	14	0.12
3	Environmental Monitoring	Continuous Emission & Effluent Monitoring System	3.4	3.4	1.3
4	Noise Pollution	Acoustic Enclosures	2.9	2.9	0.0035
5	Hazardous /Solid Waste Management	Storage area & Membership Charges	1.05	1.05	1.10
6	Greenbelt Development	Thick Greenbelt Development as per EMP	20	20	0.5
7	Fire & Safety	Fire Hydrant System	2.539	2.916	0.2
		Fire extinguisher	0.227		
		Automation for Chlorine and	0.15		

		ammonia storage area			
8	Occupational Health & Safety	OHC, PPE'S, Mock drill, Safety Audit, & Misc	0.444	0.444	0.15
9	Miscellaneous	Rain water harvesting System, Env. Lab & Misc.	8.40	53	2.66
		Drainage Network for rain water	44.6		
10	CER	Promoting renewable energy, skill development Programme, Organic farming, water conservation (like village pond deepening), forestry etc. and develop infrastructure of schools, health facilities, Fishing activities, roads in nearby villages	18.04	18.04	-
	Total A			205.03	7.53
11	Renewable Energy (B)	Installation of Solar + Windmill (Capacity – 20 MW)	113	113	--
	Total A + B			318.03	7.53

Break up of CER activities is as given below:

S.N	Type of Activities	Yearly amount to be spent in CER activities (Rs. In Crore)					Total Amount to be spent (Rs. in crore)
1	Provision of Solar light, solar panel and its maintenance in nearby villages within 10 km of study area;	0.1	0.1	0.1	0.1	0.1	0.5
2	Infrastructure development Such as primary healthcare units and the fulfilment	0.00	0.27	0.29	0.31	0.35	1.22

	of the basic amenities in PHCs including mobile medical van and Provide Bala-Rasayana to Malnutrition Children in Aanganwadi and PHC of nearby Villages						
3	Animal husbandry promotion through providing support for breed improvement, animal health care, Veterinary doctor and others as well as provides Fodder for cattle feeding nearby villages	0.8	0.85	0.9	0.9	0.9	4.35
4	Infrastructure development for quality of education, which will ultimately upgrade schools in nearby villages	0.25	0.27	0.29	0.31	0.35	1.47
5	Development Initiatives for Fishing Communities such as Creation of infrastructure like ice plants, cold storages as well as provide operational inputs such as fishing boats, nets and engines	0.15	0.15	0.15	0.15	0.15	0.75
6	Promoting environment friendly and nature-based solutions to enhance productivity of farming (Organic Farming) activities. It covers capacity building on farming techniques, provision of highquality seeds/manure, efficient irrigation solutions, etc.	0.6	0.6	0.6	0.6	0.6	3.0

7	Promoting activities for skill building to improve employment opportunities and women empowerment in nearby villages	0.45	0.45	0.45	0.45	0.45	2.25
8	Development of facilities within nearby villages such as roads	0.20	0.20	0.20	0.20	0.20	1.00
9	Activities for water conservation like deepening of nearby village ponds for storage of rainwater for domestic use of villagers	0.50	0.50	0.50	0.50	0.50	2.5
10	Promoting plantation activities through Forests by Heartfulness Institute in nearby villages	0.20	0.20	0.20	0.20	0.20	1.00
	Total	3.25	3.59	3.68	3.72	3.80	18.04

B. <u>During site visit, following observations were made:</u>

Visit Point 1: Project Site Entry

The starting plot while coming from Bhuj was explained and showcased on the toposheet. Enough road width was observed for the entry and exit point for at the proposed project site. It was observed that Bada village is quite away from the project site entry and it was informed by the PP that the raw material and finished goods trucks will never move towards the village. During visit, no construction activities at the project site was observed. It was observed that cotton cultivation was taking place at vacant land of the project site and its surrounding. PP informed that they are using the proposed land for temporary agriculture purpose and land use has been changed for non-agriculture purpose /industrial purpose for the acquired land. The surrounding land are private land owned by people. The study area is located in arid landscape with minimum rainfall. In the buffer area of the study area i.e. outside the project site, check dam was observed at northern side of buffer area within 10 km distance of project site and these also include seasonal rivers, rivulets streams and small nallahs in buffer area.

It was suggested by the committee to develop enough parking space inside the premises, with full fledge infrastructure for truck drivers. Parking area should be paved to avoid fugitive dust emissions. There should be a learning centre over road behaviour for the drivers. At no point of time the trucks should create any hindrance to the local movements of the nearby villagers.

Following statistics have brought into the notice of EAC Committee:

<u>Population</u>

- Bada population – 2011 census – 2719 Nos, 592 houses .
- Details of Distance w.r.t. plot boundary and main plant as given below:

S.N.	Locations	Distance from Plot Boundary (mtrs)	Distance from Main Plant (mtrs)
1	Vipasana Center	630	1800
2	Government High School	920	2330
3	Bada Primary School	610	2290
4	Bada Village	580	2000
5	Bhimnath Mahadev (It is a shrine worship place for specific Community)	190	1500

Note: All distances are from 546.32 Ha (Land Boundary). All the above locations are towards N and NW direction from the project site. It was noted that Vipasana Centre is located at an arial distance of 630 m from the project boundary, which is also separated by a seasonal water stream i.e. situated opposite bank of seasonal stream.
It is observed that the seasonal water stream width starts from 81m to 96.6 m at the tip of the vipassana land. The water stream's check dam is 316m wide at the check dam point and the Vipasana center is 630m away from the plant boundary. Seasonal water stream is 314 m away from the proposed plant boundary. It was informed that land between stream and boundary is a private land acquired by people and same is not a part of proposed project. The wind rose diagram submitted in the EIA report and the orientation of wind mills in the area clearly describes that there will be minimal impact from the stack of the proposed plant.

The committee travelled all the area along seasonal stream banks to gain the holistic view on the impact of emissions from the plant on Vipasanna meditation center. Taking the distance from the plant boundary, river width and the wind direction into consideration, there will be minimal impact on the vipassana centre due to upcoming project. However, as a precautionary measures, the sub-Committee has further advised to develop 100m width green belt as buffer along the boundary towards Vipasana meditation centre. It was also advised that PP shall ensure that no /untreated/treated water from the project site shall be discharged into seasonal water stream.

Visit Point 2: Seawater Intake
The committee saw the sea water intake point which is passing under the sand dunes along the coast. It was observed that Dune height was varied from 1.5 to 5 m height with beach grass and binder. It was stabilized dunes. It was observed that flat sandy seashore. It was noted that Plant/complex will be established away from shore line and sand dune area. The sand dune and shore area will be used for laying seawater intake and effluent disposal pipelines. The pipelines will be laid through tunnelling in sand dune stretch to avoid and disturbance to sand dune area. The laying of pipeline will be one-time activities and restricted only for construction only. Since the line will be placed through tunnelling, there will be minimal adverse impact on the sand dunes of the area.

It was observed that wind mills are located in and around the project site. It was informed that out of which, four wind mills are located inside the proposed site. out of which two windmills will be relocated outside from the plant boundary. NOC has been given by the M/s GSFC. The same has no adverse impact on the proposed project.

Visit point 3: Seawater out fall point:

The committee walked down along the unclassified forest area, crossed sand dunes and reached upto the seashoreline area. No habitation was observed on the way of passing through forest area towards seaside. The area was dominated by plant species namely *Prosopis juliflora*, in certain patches a dominant herbs was seen which plays an important role in sand dune stabilization. It was advised to conserve plant species and try to increase the density in the sand dune area by artificial plantation. The best model in Gujarat for sand dunes stabilization and density improvement shall be taken up by the project proponent in consultation with State Forest Department.

It was observed that, proposed route of the outer pipeline is passing through stable sand dunes. There are no sand dunes observed near the outfall of seasonal water stream into sea. It is observed that outfall of natural water stream to sea is a rocky beach. It was observed that steep slope is there and high tide water line marking was seen up to sand dune bottom. No fishing boats were observed at seashore side. However, Paghadiya fishing nets were observed.

It was informed that the tunnelling of pipelines will not cause any hindrance to local fisherman if they want to carry out any fishing activity. The effluent will be monitored regularly by the concerned authorities and additional studies will be carried out periodically by institute of repute like NIO.

Visit point 4: Vipassana Centre

The committee moved around the area of vipasana centre and observed that the sewage water is accumulated into the pond beside the premises of vipasana centre. In addition, experts had visited into the Vipassana centre but no communication had been established at the site. It brought into the notice of Committee that the M/s GHCL will take up initiatives to restore the water quality of the pond under CSR. The committee moved around the Bada village and observed that the government school Bada village is approx. at an arial distance of 960 m from the project site. It was informed that approach road to the project site is much before the Bada village so there will be no adverse impact towards village side due to transportation activities.

Visit point 5: Visit of vocational training centre

It was informed that three courses were undergoing, which are approved under National Skill Development Centre. These courses provided by GHCL foundation under CSR at free of cost to the youths of surrounding villages.

GHCL is carrying out CSR activities in the area of education, animal husbandry including fodder, fodder plot development, veterinary service with veterinary van. GHCL is also working in area of health with mobile clinic, agriculture and fisheries. They have spent around 6.5 crores in last three years in surrounding villages under CSR.

The committee had discussed regarding the dust emission due to transportation of the lignite/coal in which project proponent informed that covered vehicles, covered shed, covered gantry will be provide for storage and conveying of fuel. Over and above said precaution sprinklers and windshield shall be utilise to avoid any fugitive emission. After above said precaution there will be dense green belt as advised by MoEF&CC.

Recommendations of the Sub-Committee:

(i) Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. coal shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. Fly ash shall be collected in Silo. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(ii) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms with full fledge infrastructure for truck drivers etc. Parking area should be paved to avoid fugitive dust emissions. There should be a learning centre over road behaviour for the drivers.

(iii) PP shall develop 100m thick green belt as buffer along the boundary of project site towards Vipasana meditation centre.

(iv) PP shall install continuous air quality monitoring station towards Vipasana Centre to monitor real time ambient air quality status of the area.

(v) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. In case of the treated effluent is to be utilized for gardening, real time monitoring system shall be installed at the ETP outlet.

(vi) PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis. Any non- compliance or infringement should be reported to the concerned authority.

(vii) The Pipeline of seawater intake and effluent disposal shall be laid in a safe manner (using tunnelling) so that the sand dunes stretch between the plant boundary and respective land fall points are protected without any disturbance to their natural appearance and stability.

(viii) PP shall ensure that no /untreated/treated water from the project site shall be discharged into seasonal water stream.

(ix) PP shall ensure the implementation of conservation plan of Rs. 136.50 Lakhs for schedule – I species as approved by Chief Wildlife Warden, Gujarat vide letter no WLP/32/A/50-52/2023-24 dated 24.04.2023 for greenfield project of M/s GHCL at Bada Village, Mandavi, Kutch, Gujarat.

(x) PP shall ensure the time bound implementation of CER activities of Rs. 18.01 Crores.

(xi) M/s GHCL shall take up initiatives to restore the water quality of the water pond located near Vipasna Centre. M/s GHCL shall carry out tree plantation drive along road of Bada Village in consultation with Village Administration.

(xii) PP shall provide training to 10 local youth every quarter on environment management including air pollution control device, ETP, solid waste management, fly ash based brick manufacturing, green belt development as part of skill development programme.

(xiii) PP shall set up occupational health Centre for surveillance of the worker's health within and outside the plant on a regular basis. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xiv) Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme.

Deliberations by the EAC (Industry -3) :

i. PP informed the following :

1. M/s. GHCL Limited will acquire a total of **546.3200 hectares** for the proposed project. In alignment with this requirement, steps have been initiated in accordance with the terms outlined in a Memorandum of Understanding (MOU) with consolidators. While the acquisition process is progressing, advances related to this have been planned and are being executed to ensure the necessary land acquisitions are in place prior to the commissioning of the project. Furthermore, 33% of the total identified area will be allocated for the development of a dedicated greenbelt, reinforcing our environmental commitment.
2. That M/s. GHCL Limited is committed to developing and maintaining an average **100 m wide greenbelt** (towards Vipassana centre/Bada village) in NW and North direction facing the entrance road. Also approximately an average **30-50 m wide greenbelt** in NE direction within

the plant boundary, as per its environmental responsibility, which will be a part of total 33% greenbelt area.

3. That M/s. GHCL Limited will provide a Continuous Ambient Air Quality Monitoring Station (CAQMS) within the plant, towards the Vipassana Center, to ensure continuous monitoring and compliance.
4. That the M/s. GHCL Limited will provide an intermittent sprinkling system on both sides of the road and transportation route within plant, extending up to the storage yard, to effectively mitigate and control fugitive emissions during the transportation.
5. That the M/s. GHCL Limited ensures that paghadiya fishing activities will not be disrupted due to the project activities, during both the construction and operation phases due to micro tunnelling operation in inter-tidal zone. The company commits to taking all necessary measures to prevent any interference with local paghadiya fishing practices.
6. That the M/s. GHCL limited will install flow meters at the effluent discharge system. Also, SS monitoring system shall be installed if reliable system is available.
7. PP informed that the depth of micro-tunnelling depends on the topography. It will be approximately 14-15 meters below MSL and 5-6 meters below the seabed, extending beyond the intertidal zone.
8. The PP informed that local employment will be provided for the project as per the norms of State Government .
9. PP submitted the following revised CER activities :

Sr. No.	Type of Activities	Yearly amount to be spent in CER activities (Rs. In Crore)					Total Amount to be spent (Rs. in crore)
		1st Year	2nd Year	3rd Year	4th Year	5th Year	
1.	**Provision of Solar light, solar panel and its maintenance in nearby villages within 10 km of study area.**	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**	**0.50**
2.	**Infrastructure development Such as primary healthcare units and the fulfilment of the basic amenities in PHCs including mobile medical van and Provide Bala-Rasayana to Malnutrition Children in Aanganwadi and PHC of nearby Villages.**	**0.00**	**0.27**	**0.29**	**0.31**	**0.35**	**1.22**

3.	**Animal husbandry promotion through providing support for breed improvement, animal health care, Veterinary doctor and others as well as provides Fodder for cattle feeding nearby villages.**	**0.80**	**0.85**	**0.90**	**0.90**	**0.90**	**4.35**
4.	**Infrastructure development for quality of education, which will ultimately upgrade schools in nearby villages.**	**0.25**	**0.27**	**0.29**	**0.31**	**0.35**	**1.47**
5.	**Development Initiatives for Fishing Communities such as Creation of infrastructure like ice plants, cold storages as well as provide operational inputs such as fishing boats, nets and engines.**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.75**
6.	**Promoting environment friendly and nature-based solutions to enhance productivity of farming (Organic Farming) activities. It covers capacity building on farming techniques, provision of highquality seeds/manure, efficient irrigation solutions, etc.**	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**3.00**
7.	**Promoting activities for skill building to improve employment opportunities and women empowerment in nearby villages.**	**0.45**	**0.45**	**0.45**	**0.45**	**0.45**	**2.25**
8.	**Development of facilities within nearby villages such as roads.**	**0.20**	**0.20**	**0.20**	**0.20**	**0.20**	**1.00**

9.	**Activities for water conservation like deepening of nearby village ponds for storage of rainwater for domestic use of villagers.**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**2.50**
10.	**Promoting plantation activities through Forests by Heartfulness Institute in nearby villages.**	**0.20**	**0.20**	**0.20**	**0.20**	**0.20**	**1.00**
11.	**Installation of 100 solar street lights in nearby villages, namely Bada, Janakpur, Bhinsara, Panchotiya, Layja Mota, Layja Nana, Bhada, Bayath, Mapar, Bambhadai, Modhkuba and Padamapar. (Already 200 solar lights have been considered in point no. 1)**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.25**
12.	**Installation of a suitable capacity Sewage Treatment Plant with proper consultation with local administration in Bada Village.**	**-**	**0.10**	**2**	**0.30**	**-**	**2.40**
Total		3.30	3.74	5.73	4.07	3.85	20.69

10. PP submitted the revised capital cost and recurring cost earmarked for implementation of EMP

ASPECT OF ENVIRONMENTAL MANAGEMENT	**COST IN CRORE [RS.]**	**RECURRING COST (CRORE /ANNUM) [RS.]**	**REMARKS**
Air Pollution	89.28	1.50	Capital cost would include air pollution control devices like ESPs, Scrubbers, Dust extraction and suppression systems, Stacks, Dry Fog system, Wind screen and the recurring cost would include operation and maintenance of pollution control devices

Water Pollution	14	0.12	Capital cost would include cost of ETP, STP and recurring cost would include operation and maintenance of pollution control devices
Noise Pollution	2.9	0.0035	Capital cost would include providing adequate sound enclosures for TG, CO- compressor, DG Set
Hazardous / Solid Waste Management	1.05	1.10	Capital cost would include expense for providing storage area for hazardous waste and membership charges of TSDF/CHWIF Site and recurring cost would be for solid/ hazardous waste disposal charges and Sampling & analysis charges of solid waste.
Environmental monitoring Programme	3.4	1.30	Capital cost would include expense OCEMS, Online weather station, online pH, NH3-N, Temp meter and recurring cost would include monitoring and analysis of noise level., Sample analysis charges & ambient air & fugitive emission sampling & analysis charges etc., Fresh water & wastewater sample analysis charges etc. Soil: recurring cost would be for Soil Sample analysis., Marine area environment monitoring
Green Belt	20	0.5	Capital cost would include development of green belt within the project premises and recurring cost would include maintenance charges and manpower salary etc.
Renewable Energy	113	--	Capital cost would include Installation of Solar and Windmill
Fire safety & Occupational Health & Safety	3.41	0.35	Capital cost would include cost of OHS center, PPEs, fire & safety instruments and recurring cost would include maintenance charges and training, audit & health check-up etc.

Miscellaneous	53	2.66	Miscellaneous activity such as development of rain water harvesting system, Drainage Network for rain water, Environmental laboratory, Environmental Management system, miscellaneous study, statutory application fees, audit, training cost etc. and recurring cost would include biodiversity management plan, hiring of EMC and Conservation Plan for Schedule 1 species.
CER	20.69	--	Capital cost would include cost of CER activities such as promoting renewable energy, skill development Programme, Organic farming, water conservation (like village pond deepening), forestry etc. and develop infrastructure of schools, health facilities, Fishing activities, roads in nearby villages, Installation of additional solar street lights in nearby villages and Installation of a suitable capacity Sewage Treatment Plant with proper consultation with local administration in Bada Village.
Total (EMP + CER)	320.73	7.53	

23. **The EAC, after detailed deliberations, recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I:**

(i) PP shall ensure that recommendations of SCZMA issued vide letter dated ENV/10/2021/187/T-Cell, dated 26/12/2023 for proposed greenfield chemical complex, sea water intake and effluent disposal facilities shall be implemented. Recommendations mentioned in Marine EIA Report; Conservation Plan of Sea Turtle report; Conservation & management plan for the conservation of Significant species prepared by GUIDE, Kachchh; Conservation Plan of Sand Dune by CSIR-NIO, Mumbai.

(ii) PP shall ensure that condition stipulated in letter dated 18.07.2023 for diversion of 0.96ha unclass forest and letter dated 4.01.2024 for final stage II.

(iii) ESP alongwith Stack height of 130 m shall be provided to Imported Coal/Lignite/ Pet coke fired with flue gas desulphurization 150TPH CFBC Boiler (6 Nos.) to control the particulate emission as per CPCB norms. Stack height of 30 m shall be provided to 5 MvA DG set(2/3 nos). Scrubber and Dust Collector system alongwith stack height of 68 m shall be provided to Coke or Briquette or Anthracite fired lime kiln to control the particulate emission as per CPCB norms. Water scrubber system alongwith stack height of 42m shall be provided to ammonia recovery system. Bagfilter

alongwith adequate stack height shall be provided to lime grinding system/slaker. Scrubber, Bag filter shall be provided to Calciner unit. Scrubber shall be provided to Densification. Bagfilter shall be provided to Sodium bicarbonate unit. Scrubber and wet ESP shall be provided to lime kiln.

(iv) PP shall install continuous ambient air quality monitoring station towards Vipasana Centre to monitor real time ambient air quality status of the area.

(v) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(vi) Total fresh water requirement from sea water shall not exceed 14,61,038 m^3/day.

(vii) NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

(viii) Total Effluent generation shall not exceed **14,48,508 m^3/day** [Domestic - **160 m^3/day** + Industrial – **14,48,348 m^3/day** (fresh seawater for dilution – 5,14,678 m^3/day + effluent generation from soda ash & CPP plant – 1,26,830 m^3/day + once through cooling – 8,07,000 m^3/day]. The industrial effluent generated (14,48,508 m^3/day) i.e. from RO/DM rejects, brine purification reject, distiller waste and boiler blowdown shall be mixed with fresh seawater for dilution and wastewater from once-through cooling and treated and disposed into the Arabian Sea as per the recommendation of NIO and after achieving the prescribed norms of CPCB/SPCB. Domestic effluent (**160 m^3/day**) shall be treated in sewage treatment plant and treated sewage will be reused in landscaping & gardening purposes.

(ix) The Pipeline of seawater intake and effluent disposal shall be laid in a safe manner (using tunnelling) so that the sand dunes stretch between the plant boundary and respective land fall points are protected without any disturbance to their natural appearance and stability.

(x) GHCL Limited shall ensure that paghadiya fishing activities shall not be disrupted due to the project activities, during both the construction and operation phases due to micro tunnelling operation in inter-tidal zone. The company commits to taking all necessary measures to prevent any interference with local paghadiya fishing practices

(xi)

(xii) PP shall ensure that no /untreated/treated water from the project site shall be discharged into seasonal water stream.

(xiii) PP shall ensure the implementation of conservation plan of Rs. 136.50 Lakhs for schedule – I species as approved by Chief Wildlife Warden, Gujarat vide letter no WLP/32/A/50-52/2023-24 dated 24.04.2023 for greenfield project of M/s GHCL at Bada Village, Mandavi, Kutch, Gujarat.

(xiv) The PP shall develop greenbelt of at least 30-50 m width over an area of 18,02,856 m^2 (33%) within the project site mainly along the plant periphery, preferably within a year of the grant of EC. PP shall develop and maintain an average **100 m wide greenbelt** (towards Vipassana centre/Bada village) in NW and North direction facing the entrance road. Also approximately an average **30-50 m wide greenbelt** in NE direction within the plant boundary, as per its environmental responsibility, which will be a part of total 33% greenbelt area. The tree saplings selected for the plantation should be of sufficient height, preferably 6-ft shallbe planted in greenbelt area. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xv) Plantation of saplings shall be carried out as a part of tree plantation campaign "EK PED MA ke NAAM" and details of the same to be uploaded in the MeriLiFE portal (https://merilife.nic.in) in respect to this Ministry's OM No. IA3-22/3/2024-IA.III(E-241594) dated 24th July 2024.

(xvi) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions and shall also engage Environment Officials. IN addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xvii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 320 crore (Capital cost) and ₹ 7.53 Crore per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xviii) PP shall ensure the time bound implementation of CER activities of Rs. 20.69 Crores

(xix) M/s GHCL shall take up initiatives to restore the water quality of the water pond located near Vipasna Centre. M/s GHCL shall carry out tree plantation drive along road of Bada Village in consultation with Village Administration.

(xx) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.

(xxi) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(xxii) All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration site or sent for coprocessing. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development. 570 MT/A Fly ash shall be stored under covered silos handed over to the Cement manufacturers/ Cement Industry.

(xxiii) Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. coal shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. Fly ash shall be collected in Silo. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xxiv) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms with full fledge infrastructure for truck drivers etc. Parking area should be paved to avoid fugitive dust emissions. There should be a learning centre over road behaviour for the drivers.

(xxv) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.

(xxvi) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xxvii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xxviii) PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis. Any non- compliance or infringement should be reported to the concerned authority

(xxix) PP shall set up occupational health Centre for surveillance of the worker's health within and outside the plant on a regular basis. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xxx) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xxxi) PP shall provide training to 10 local youth every quarter on environment management including air pollution control device, ETP, solid waste management, fly ash based brick manufacturing, green belt development as part of skill development programme.

(xxxii) Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme.

(xxxiii) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.

(xxxiv) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be fire proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xxxv) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xxxvi) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

(xxxvii) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

(xxxviii) The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

Item No. 2

Establishment of 3,00,000 KLPA capacity of Paint & 85,000 TPA Resins & Emulsion Manufacturing plant located at Plot no. 2602, GIDC Ankleshwar, Bharuch District, Gujarat – 393002, by Asian Paints - Amendment in EC

[Proposal No.: IA/GJ/IND3/301555/2023, File No.: IA-J-11011/278/2023-IA-II(I)]

1. The proposal is for the Amendment in EC for Establishment of 3,00,000 KLPA capacity of Paint & 85,000 TPA Resins & Emulsion Manufacturing plant located at Plot no. 2602, GIDC Ankleshwar, Bharuch District, Gujarat – 393002, by Asian Paints.

2. The project/activity is covered under Category 'A' of item 5 (h)- Integrated paint industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended).

Reason for Amendment : During the submission of EIA and EC application, there was a typing error in "Capacity" Column. Inadvertently 2 Lakh Kcal/hr was mentioned instead of 20 Kcal/hr, although other details including the fuel consumption, basis which pollution load was calculated, is correctly mentioned i.e., 120 kg/hr.

3. The PP proposed the following amendments in the EC:

Details of Configurations					
S.no	Plant/ Equipment/ Facility	Existing Configuration	Proposed Configuration	Final configuration after Corrigendum	Remarks if Any
1	Thermic Fluid Heater - 4	2	20	20	Capacity (Lakh Kcal/hr)
2	Thermic Fluid Heater - 5	2	20	20	Capacity (Lakh Kcal/hr)
3	Thermic Fluid Heater - 3	2	20	20	Capacity (Lakh Kcal/hr)
4	Thermic Fluid Heater - 6	2	20	20	Capacity (Lakh Kcal/hr)
5	Thermic Fluid Heater - 1	2	20	20	Capacity (Lakh Kcal/hr)
6	Thermic Fluid Heater - 2	2	20	20	Capacity (Lakh Kcal/hr)

Any Other Corrigendum Required				
S.no	**Reference of Approved EC**	**Description as per Approved EC**	**Description as per Proposal.**	**Remarks**
1	SEIAA/GUJ/EC/5(h)/597/2018	Capacity of Thermic Fluid Heaters (6 Numbers) = 2	Capacity of Thermic Fluid Heater (6 Numbers) = 20	EC condition A. 3 Air 22

2. **Deliberations by the EAC:**

The PP did not attend the 87th EAC meeting.

Accordingly, proposal was deferred. Thereafter, information shall be submitted online to the PARIVESH 1 portal for further consideration by EAC.

Item No. 3

Manufacturing of Synthetic Organic Chemicals (Acrylate Polymers) located at Survey No. 473 & 481, Village Borisana, Taluka Kadi, District Mehsana, Gujarat by M/s. Corel Pharma Chem Pvt. Ltd. - Amendment in Environmental Clearance

[Proposal No.: IA/GJ/IND3/298731/2023, File No.: J-11011/313/2017-IA-II(I)]

1. The proposal is for amendment in the **Environmental Clearance** granted by the Ministry vide letter no. **F. No. F. No. J-11011/313/2017-IA-II (I)** dated **27th July, 2020 and it's transferred on dated: 18th December, 2020** for the project **M/s. Corel Pharma Chem (India) Pvt. Ltd** located at **Survey No. 453, 463 & 464, Borisana Village, Taluka: Kadi, District: Mehsana, Gujarat – 384441** in favor of **M/s. Corel Pharma Chem (India) Pvt. Ltd.**

2. The project proponent has requested for amendment in the ToR/EC with the details are as under:

Sr. No.	Para of EC issued by MoEF &CC	Details as per the EC	To be revised as per EC-Amendment	Justification/ reasons
1.	Condition No. 2	The Ministry of Environment, Forest and Climate Change has examined the proposal for manufacturing of synthetic organic chemicals (Acrylate Polymers) of capacity 2000 TPM by M/S. Corel Pharma Chem Pvt. Ltd. in an area of 56,129 sq.m located at survey No. 473 & 481, Village Borisana, Taluka Kadi, District Mehsana (Gujarat).	The Ministry of Environment, Forest and Climate Change has examined the proposal for manufacturing of synthetic organic chemicals (Acrylate Polymers) of capacity 2000 TPM by M/S. Corel Pharma Chem (India) Pvt. Ltd. in an area of 67,800 sq.m located at Survey No. 453, 463 & 464, Borisana Village, Taluka: Kadi, District: Mehsana, Gujarat – 384441.	Additional land has been purchased only for greenbelt development and parking facility.
2.	Condition No. 4	Total land area available for the project is 56,129 sqm. Industry will develop green belt in an area of 18,750 sqm, covering 33.41% of total project area. The estimated project cost is Rs.20 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.41 lakhs and the recurring cost (operation and maintenance) will be about Rs.6.75 lakhs per annum. Employment opportunity will be for 220 persons.	Total land area available for the project is 67,800 sqm. Industry will develop green belt in an area of 22,375 sqm, covering 33% of total project area. The estimated project cost is Rs.20 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.41 lakhs and the recurring cost (operation and maintenance) will be about Rs.6.75 lakhs per annum. Employment opportunity will be for 220 persons.	Additional land has been purchased only for greenbelt development and parking facility.
3.	Condition No. 6	Total water requirement is 203 cum/day of which fresh water requirement will be 203 cum/day proposed to be met from canal of Sardar Sarovar Nigam Limited. Effluent of 13.33 cum/ day will be treated through ETP. Total water treated in MEE+ATFD 13.33 KLD condensate water will be used for green	Total water requirement is **530 cum/day** out of which fresh water requirement will be 530 cum/day proposed to be met from the bore-well. Effluent of 17.2KLD will be treated through ETP. Total water of 134.7 KLD water will be evaporated in the MEE followed by ATFD, out of which 122.8 KLD condensate	Sardar Sarovar Nigam Limited (SSNL) is at a distance of

		belt Development & Cooling Make up. 8 KLD will be generated from Domestic use which will be treated in STP and treated water will be used for gardening purpose. The plant will be based on Zero liquid discharge system. Power requirement of 2500 kVA will be met from Uttar Gujarat Vij Company limited (UGVCL). Two DG set of 250 kVA capacity & three nos. of DG sets of 500 kVA capacities will be installed and used as standby during power failure. Stack height 3 m for 250 kVA DG sets and 5 m for 500 kVA DG sets will be provided as per CPCB norms to the proposed DG sets. The unit is proposed 2 nos. of steam boilers, 2 nos. of TFH, 6 nos. of HAG. The details of boilers are as under:-	water will be reused in cooling – makeup and 8.7 KLD will be reused for green belt Development. 10 KLD of RO-reject water will be reused for green belt Development. 18 KLD will be generated from Domestic use which will be treated in STP and reused for gardening purpose. The plant will be based on Zero Liquid Discharge system. Power requirement of 2500 kVA will be met from Uttar Gujarat Vij Company limited (UGVCL). Two DG set of 250 kVA capacity & three nos. of DG sets of 500 kVA capacities will be installed and used as standby during power failure. Stack height 3 m for 250 kVA DG sets and 5 m for 500 kVA DG sets will be provided as per CPCB norms to the proposed DG sets. The unit is proposed 2 nos. of steam boilers, 1 no. of TFH. The details of boilers are as under:-	approximately 5-6 km from the site. A permission letter and installation would take almost 3-4 years. The unit has obtained a NOC for the abstraction of ground water.
4.				

Sr. No.	Details	Capacity	Fuel name	Fuel quantity	Air Pollution control Measure
1	Steam boiler-I	3 TPH	White coal/Briquettes/PNG	27 MT/Day OR 1200 SCM/Day	Multi cyclone separator/ bag filter
2	Steam boiler-II (Stand by)	3 TPH	White coal/Briquettes/PNG	3.5 MT/Day OR 400 SCM/Day	Multi cyclone separator/ bag filter
3	Thermal Fluid Heater	20 Lakhs Kcal/hr	White coal/Briquettes	18 MT/Day	Adequate Stack Height
4	Thermal fluid heater -2	4 Lakhs Kcal/hr.	HSD/LDO	40 Lt/hr.	Adequate Stack Height
5	DG set - 1 250 KVA	250 KVA	HSD	40 Lt/hr.	Adequate Stack Height
6	DG set - 2 250 KVA	250 KVA	HSD	40 Lt/hr.	Adequate Stack Height
7	DG set - 3 500 KVA	500 KVA	HSD	80 Lt/hr.	Adequate Stack Height
8	DG set - 4 500 KVA	500 KVA	HSD	80 Lt/hr.	Adequate Stack Height
9	DG set - 5 500 KVA	500 KVA	HSD	80 Lt/hr.	Adequate Stack Height

The stack height of boiler will be 30 m, TFH 11 m, and DG set 3-5m. There is no process emission from manufacturing processes.

Higher Kcal/hr Thermic Fluid Heater (TFH) is to be installed to make up for the 6 Hot Air Generators (HAGs) which are desired to be removed. One TFH supplying heat to various locations would be more efficient as compared to 6 HAGs at 6 different locations.

White coal (agricultural briquette which is a renewable source of

		10	Hot Air Generator -1	500 Kg/hr.	HSD/LDO	100	Lt/hr.			energy) is to be used as a fuel in the 20 Kcal/hr TFH. This would in turn replace diesel that was proposed to be used in each of the separate HAGs at various locations.
		11	Hot Air Generator -2	500 Kg/hr.	HSD/LDO	100	Lt/hr.			
		12	Hot Air Generator -3	400 Kg/hr.	HSD/LDO	90	Lt/hr.			
		13	Hot Air Generator -4	400 Kg/hr.	HSD/LDO	90	Lt/hr.			
		14	Hot Air Generator -5	400 Kg/hr.	HSD/LDO	90	Lt/hr.			
		15	Hot Air Generator -6	400 Kg/hr.	HSD/LDO	90	Lt/hr.			
		The stack height of boiler will be 30 m, TFH 11 m, HAG 5 m and DG set 3-5m. There is no process emission from manufacturing processes.								
5.	Condition No. 12	The recommendation of Expert Appraisal Committee has been examined in the Ministry. Based on the proposal submitted by the project proponent and recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to project for manufacturing of synthetic organic chemicals (Acrylate Polymers) of capacity 2000 TPM by M/s Corel Pharma Chem Pvt. Ltd., located at Survey No. 473 & 481, Village Borisana, Kadi Thol Road, Kadi, District Mehsana (Gujarat), under the provisions of the EIA Notification, 2006, and the amendments therein, subject to the compliance of the terms and conditions as under:-							The recommendation of Expert Appraisal Committee has been examined in the Ministry. Based on the proposal submitted by the project proponent and recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to project for manufacturing of synthetic organic chemicals (Acrylate Polymers) of capacity 2000 TPM by M/s Corel Pharma Chem (India) Pvt. Ltd., located at Survey No. 453, 463 & 464, Borisana Village, Taluka: Kadi, District: Mehsana, Gujarat – 384441, under the provisions of the EIA Notification, 2006, and the amendments therein, subject to the compliance of the terms and conditions as under:-	--
6.	Specific Condition No. VIII	Total fresh water requirement shall not exceed 203 cum/day, proposed to be met from canal of Sardar Sarovar Nigam Limited. Prior permission in this regard shall be obtained from the concerned regulatory authority. No ground water shall be used.							Total fresh water requirement shall not exceed 530 KLD, proposed to be met from the bore-well. Prior permission in this regard shall be obtained from the concerned regulatory authority.	Sardar Sarovar Nigam Limited (SSNL) is at a distance of approximately 5-6 km from the site. A permission letter and installation would take almost 3-4 years.

Deliberations of the EAC:

i. The committe noted thath the PP has not submitted the copy of land owenrship in the name of oroject porponent. The committee suggested to submit specific land ownership documnent indicating the land is owned by the M/s. Corel Pharma Chem Pvt. Ltd. The committee will appraise the entire proposal after submission of the land ownership document in the name of M/s. Corel Pharma Chem Pvt. Ltd.

Accordingly, proposal was deferred for want of above said information. Thereafter, information shall be submitted online to the PARIVESH portal for further consideration by EAC.

Any Other Item

Item No. 4

Setting up of pesticides and pesticide specific intermediates & Synthetic Organic Chemicals manufacturing plant with total production capacity 431161 TPA, Co product 10480 TPA and CPP of 4.9 MW capacity located at Plot no. 41/1 & 41/2, GIDC Notified Industrial Estate, Jhagadia, District Bharuch, Gujarat by M/s Aarti Industries Limited - Merging of two Environmental Clearances

[Proposal No.:- IA/GJ/IND3/291239/2022]

The proposal is regarding amalgamation of two Environmental Clearances of adjacent units of Aarti Industries Limited i.e. Aarti Industries Limited (Unit-IV) at Plot No: 41/2 and Aarti Industries Limited at Plot No: 41/1 located in Notified Industrial Estate of Jhagadia, Gujarat. Aarti Industries Limited (Unit IV) has obtained EC from SEIAA vide EC No. SEIAA/GUJ/EC/5(f)/1204/2022 dated 17th May 2022 for setting up manufacturing plant of "Synthetic Organic Chemicals" at Plot no. 41/2, GIDC Notified Industrial Estate, Jhagadia. Ta- Jhagadia, Dist- Bharuch. 3.

The proposal was considered 69th EAC meeting held on 17.11.2023 and the EAC recommended for amalgamation of two Environmental Clearances of adjacent units of Aarti Industries Limited.

Further The proposal was considered by EAC (Industry -3) in its 87th meeting held on 21st October, 2024.

Deliberations of the EAC

PP informed that after the merger of the two adjacent units for which ECs were obtained i.e. (1) EC no. SEIAA/GUJ/EC/(f)/1204/2022 dated 17.05.2022 and (2) EC no. IA-J-11011/458/2021-IA-II(I) dated 08.06.2022, the name of merged unit will be M/s. Aarti Industries Limited, Plot No. 41/1 & 41/2, GIDC Notified Industrial Estate, Jhagadia, Dist Bharuch, Gujarat. The ownership will remain with M/s. Aarti Industries Limited with the same CIN no.

The responsibility w.r.t. environmental safeguards and other legal requirements will be with M/s. Aarti Industries Limited, Plot No. 41/1 & 41/2, GIDC Notified Industrial Estate, Jhagadia, Dist Bharuch, Gujarat.

In view of the above, the Committee recommended subject to submission of undertaking stating that All the environmental liabilities after merger of ECs, i.e., (i.) EC no. SEIAA/GUJ/EC/(f)/1204/2022 dated 17.05.2022 and (ii) EC no. IA-J-11011/458/2021-IA-II(I) dated 08.06.2022 *if any* shall be borne by M/s. Aarti Industries

Limited and compliance obligations w.r.t. all the conditions stipulated in the both the ECs shall be complied by M/s. Aarti Industries Limited.

ANNEXURE-I

GENERAL EC CONDITIONS

- No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- The PP shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
- The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- A copy of the clearance letter shall be sent by the PP to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- The PP shall also upload/submit six monthly reports on PARIVESH Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.
- The PP shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at **https://parivesh.nic.in/**. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

***

Annexure-I

List of the Expert Appraisal Committee (Industry-3) members participated in Day - I during Video Conferencing (VC) meeting

S. No.	Name of Member	Designation
1.	Prof. (Dr.) A.B. Pandit	Chairman
2.	Dr. Suresh Panwar	Member
3.	Dr. (ER.) Dibakar Swain	Member
4.	Shri Dinabandhu Gouda	Member
5.	Dr. Kishore Malviya	Member
6.	Shri Amit Vashisht	Member
7.	Dr. P. Jagannadha Rao	Member
8.	Dr. Vijay S Moholkar	Member
9.	Prof. Suneet Dwivedi	Member
10.	Shri A N Singh	Member Secretary
MoEFCC		
1.	Dr. Kanchan Puri	Scientist-B
2.	Dr. Bhawana Kapkoti Negi	Technical Officer

***

MoM approved by

(Prof. Aniruddha B. Pandit)
Chairman

ENVIRONMENTAL CLEARANCE

PARIVESH (Pro-Active and Responsive Facilitation by Interactive, and Virtuous Environment Single-Window Hub)

Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The COO
GHCL LIMITED
GHCL HOUSE, OPPOSITE PUNJABI HALL, NAVRANGPURA,AHMEDABAD,GHCL HOUSE, OPPOSITE PUNJABI HALL, NAVRANGPURA, AHMEDABAD,Ahmedabad,Gujarat-380009

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/GJ/IND3/408164/2022 dated 27 Dec 2023. The particulars of the environmental clearance granted to the project are as below.

1.	**EC Identification No.**	**EC24A014GJ150106**
2.	**File No.**	IA-J-11011/293/2021-IA-II(I)
3.	**Project Type**	New
4.	**Category**	A
5.	**Project/Activity including Schedule No.**	4(e) Soda ash Industry
6.	**Name of Project**	"Greenfield Chemical Complex" of GHCL Ltd.
7.	**Name of Company/Organization**	GHCL LIMITED
8.	**Location of Project**	Gujarat
9.	**TOR Date**	N/A

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 12/12/2024

(e-signed)
A N Singh
Scientist F
IA - (Industrial Projects - 3 sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH.Please quote identification number in all future correspondence.

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This has reference to your proposal No. **IA/GJ/IND3/408164/2022**, on the above subject matter.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal seeking Environmental Clearance and CRZ Clearance for Proposed project to produce Light Soda Ash (LSA) of 11,00,000 TPA capacity, 5,00,000 TPA of Dense Soda Ash (DSA) and 2,00,000 TPA Sodium Bicarbonate (SBC) located at near village Bada, Taluka - Mandvi, District - Kutch in the Gujarat by "Greenfield Chemical Complex" of GHCL Ltd.

3. The project/activity is covered under Category 'A' of Item 4 (e) soda ash industry and 1(d) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) as the project is located outside the notified industrial area.

4. The ToR was issued by the Ministry, vide letter no. IA-J-11011/293/2021-IA-II(I) dated 10th August, 2021. The PP applied for the Environment Clearance in the Common Application Form and submitted the EIA/EMP Report and other documents. The PP in the CAF reported that it is a Fresh EC case. The proposal was placed in 72nd EAC Meeting held on 2nd January, 2024, 74th EAC meeting held on 6th Februay,2024, 78th EAC meeting held on 30th April,2024 wherein the proposal was deferred for want of requisite information now the proposal is placed in this 80th EAC meeting held on 7th June, 2024 where project was wherein the PP and an accredited Consultant, M/s. T. R Associates [NABET accreditation till NABET Accreditation Number: NABET/EIA/2326/RA 0293 valid till 8th April, 2026], made a detailed presentation on the salient features of the project and informed the following:

5. The PP reported that the Total land area is 5463200 m2; no additional land will be used for proposed project and no R& R is involved in the Project. The details of various products are as follows:

Sr. No.	**Name of the Product**	**Production Capacity (MT/Month)**	**CAS Number**	**End use**
1	Light Soda Ash	11,00,000 TPA	497-19-8	Manufacturing of glass, usage in chemical industry, paper and detergent manufacturing, and food industry
2	Dense Soda Ash	5,00,000 TPA	497-19-8	
3	Sodium bicarbonate	2,00,000 TPA	144-55-8	
Captive Co-generation Power plant Steam (CFBC boilers)			120 MW	
Emergency DG Set			5 MVA	

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Note- The production capacities are planned in phased manner and for Phase 1 production capacity for LSA: 5,50,000 TPA, Dense Soda Ash: 2,50,000 TPA, SBC: 1,00,000 TPA and 60 MW for Captive Co-generation Power plant.	

6. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

7. The PP reported that there is no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. **Marine National Park and Sanctuary, Jamnagar are located at 75 km aerial distance in South direction and Narayan Sarovar Sanctuary is located at more than 100 km aerial distance in North-West directions**. Flap shell turtle, Green Sea turtle, Indian monitor lizard, Olive Ridley Sea turtle, Black shoulder kite, Eurasian Spoonbill, Indian Peafowl, Marsh Harrier, Oriental Honey Buzzard, Gugal Schedule-I species were found in the study area for which conservation plan has been prepared and submitted to PCCF and Chief wildlife warden dated 9.11.2023. Chief Wildlife Warden, Gujarat vide letter no WLP/32/A/50-52/2023-24 dated 24.04.2023 has granted approval of conservation plan of selected schedule -1 species for greenfield project of M/s GHCL at Bada Village, Mandavi, Kutch, Gujarat. The Conservation plan of Rs. 136.50 Lakhs has been approved which includes components of Habitat Conservation, Protection and improvement; Research and Monitoring; Education and Awareness; Miscellaneous and monitoring.

8. The PP reported that the diversion of 0.9689 ha un-class forest for laying part of sea water intake and effluent disposal pipeline and passage for related construction equipment movement in Kachchh has been obtained vide letter dated 18. 7.2023.

9. The PP reported the Unit has received the Final recommendation letter from GZMA vide file no ENV/ 10/ 2021/184/ T- cell dated 26.12.2023. CRZ details are as given below:

Activities	**Zone**
Construction of process plant and utilities etc.	Outside CRZ area
Effluent collection	Outside CRZ area
Seawater Intake system i.e. sump and pump house	CRZ III
Intake Pipeline	CRZ IA, CRZ IB and CRZ IV
Outfall Pipeline	CRZ IA, CRZ IB and CRZ IV

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Laying of Seawater Intake and effluent disposal underground pipeline through tunnel from unclassified Forest area, Sand dune area, intertidal area outside project boundary.

10. The PP reported that **Ambient air** quality monitoring was also carried out at **10 locations** during **December 2022 – February 2023**. The baseline data indicates the ranges of concentrations as: PM_{10} (50.31**µg/m^3 to 83.48µg/m^3**), $PM_{2.5}$ (**21.65 µg/ m^3 to 51.31 µg/ m^3**), SO_2 (BDL (DL=5)**to 17.38 µg/m^3**), NOx (**16.38µg/m^3 to 41.49 µg/m^3**), Ozone (BDL (DL=10) **to 19.62 µg/m^3**), Ammonia, Carbon Monoxide, Lead (Pb), Arsenic (As), Nickel (Ni), Benzo(α)pyrene(B[a]P) and Benzene results were observed Below Detectable Limit. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be **1.23** µg/m^3 in case of Lignite, **1.21** µg/m^3 in case of Coal and **1.19** µg/m^3 in case of Petcoke with respect to PM10, **1.71** µg/m^3 in case of Lignite, **0.229** µg/m^3 in case of Coal and **1.44** µg/m^3 in case of Petcoke with respect to SO_2 and **5.08** µg/m^3 in case of lignite, **8.82** µg/m^3 in case of coal and **9.50**µg/m^3 in case of Petcoke with respect to NO_x, 2.39 µg/m^3 in case of NH_3. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

11. The PP reported that the total water requirement for project will be **14,61,038 m^3/day** which will be met from **Sea water.** Total Effluent of **14,48,508m^3/day** [Domestic - **160 m^3/day** + Industrial – **14,48,348m^3/day** (fresh seawater for dilution – 5,14,678 m^3/day + effluent generation from soda ash & CPP plant – 1,26,830 m^3/day + once through cooling – 8,07,000 m^3/day] will be generated. The industrial effluent generated (14,48,508 m^3/day) i.e. from RO/DM rejects, brine purification reject, distiller waste and boiler blowdown will be mixed with fresh seawater for dilution and wastewater from once-through cooling and treated and disposed into the Arabian Sea as per the recommendation of NIO. The characteristics of the discharge water are within the norms prescribed by CPCB. Domestic effluent (**160 m^3/day**) will be treated in the sewage treatment plant and treated sewage will be reused in landscaping & gardening purposes.

12. The PP reported that the Power requirement for proposed project will be 120 MW and will be met from Captive Co-generation Power plant. D. G. Set (5 MVA X 1) [Fuel: HSD (60 KL)] shall be provided and used only in case of power failure. Stack (30 meter) and Retrofit shall provide as per CPCB norms to the DG sets. Industry will provide six Steam Boiler (150 TPH) for captive power plant, six lime kilns and D G sets

13. **Details of process emissions generation and its management:**

SR.NO.	Stack attached to	Capacity	Height of the	Fuel & its Consumption	Expected Pollute	APC System	GPCB Limit

EC Identification No. - EC24A014GJ150106 File No. - IA-J-11011/293/2020-IA-II(I) Date of Issue EC - 12/12/2024 Page 4 of 26

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			stack (m)		**nt**		
1	CPP with flue gas desulphurization CFBC Boiler (6 Nos.)	150 TPH	130 m	Imported Coal/Lignite/ Pet coke (Imported Coal: 13,14,000 TPA, Lignite :19,71,000 TPA, Pet coke: 9,12,500 TPA)	SPM SO_2 NO_2 Hg	Individual ESP with each Boiler	PM ≤ 30 mg/N m^3 SO_2≤ 100 mg/N m^3 NO_2≤ 100 mg/N m^3 Hg ≤ 0.03 mg/N m^3
2	D G Set (2/3 Nos.)	5 MVA	30 m	HSD (60 KL)	HC CO PM NO_x	Retrofitting	NOx 710 ppmv NMHC 100 mg/N m3 PM 75 mg/N m3 CO 150 mg/N m3
3	Lime Kiln 1		68 m	Coke or Briquette or Anthracite (Coke - 1,30,000 TPA, Briquette- 1,55,000 TPA, Anthracite - 1,10,000 TPA)	SPM SO_2 NO_2	Scrubber and Dust Collector system	SPM ≤ 150 mg/N m^3 SO_2≤ 100 ppm NO_2≤ 50 ppm
4	Lime Kiln 2		68 m			Scrubber and Dust Collector system	
5	Lime Kiln 3		68 m			Scrubber and Dust Collector system	
6	Lime Kiln 4		68 m			Scrubber and Dust	

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						Collector system	
7	Lime Kiln 5		68 m			Scrubber and Dust Collector system	
8	Lime Kiln 6		68 m			Scrubber and Dust Collector system	

SR.NO.	**Stack attached to**	**Height of the stack (m)**	**Expected Pollutant**	**APC System**
1	Ammonia Recovery system	42 m	Ammonia	Water scrubber
2	Lime grinding system / Slaker	65 / 20 m	PM / Water vapor	Bag filter / Adequate stack height
3	Calciner unit	37 m	PM	Scrubber, Bag filter
4	Densification	43 m	PM	Scrubber
5	Sodium Bi-Carbonate Unit	30 m	PM	Bag filter
6	Lime Kiln	Closed system	PM	Scrubber and Wet ESP

14. **Details of Solid Waste/ Hazardous Waste Generation and Its Management**:

Sr. No.	**Type of Waste**	**Category**	**Quantity**	**Mode of Disposal**
1	Settled Sludge from treatment of effluent generated from captive power plant & RO/DM Plant	35.3	1.0 MT/Annum	Collection, storage and disposal at approved TSDF site
2	Used Oil	5.1	12 KL	Collection, storage and used within premises as a lubricant / sold to

				registered recycler
3	Discarded Drums and Bags	33.1	6.45 MT/Annum	Collection, storage & sold to authorized vendor
4	Spent Ion exchange resin	35.2	3000 Lit/Annum	Collection, storage and disposal at approved TSDF site
5	Used Cotton	33.2	5 MT/Annum	Collection, storage and disposal at approved CHWIF site
6	Lead acid Batteries	Schedule-IV (17)	5 MT	Collection, storage & sold to authorized agency through auction
7	E-Waste	Schedule-I of E-Waste (Management) Rules, 2022	5 MT/ Annum	Collection, storage & sold to authorized agency through auction
8	Plastic Waste	-	2295 MT/Annum	Collection, Storage and Disposal to CPCB/SPCB authorized recyclers under EPR of Plastic Waste Management
9	Bio-medical Waste	-	0.035 MT/Annum	Collection, storage and disposal at as per Bio-medical Waste Management Rules, 2016
10	Construction and Demolition Waste	-	20 TPD	Collection, storage and utilize internally for area filling, road making etc.

Non-Hazardous Solid Waste Details

Sr. No.	Type of Waste	Source of Generation	Quantity	Mode of Disposal

1	STP sludge	STP	1152 MT/Annum	Reused as Manure in Greenbelt Development
2	Kitchen Waste	Canteen	0.01 MT/Day	Collected and composted in Composter and further used as manure for gardening in the premises
3	Ash (Fly ash & Bottom Ash)	Boiler	2726.847 TPD	Collection in silos, storage & sold to cement Manufacturing/ Brick Manufacturing
4	Limestone rejects	Desulphurization Process	1,00,000 MT/Annum	Collection and reused in Boiler for desulphurization and as a sweetener in cement industry, road making, pavement etc.

15. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ **320.73 crore** (capital) and the Recurring Cost (operation and maintenance) will be about ₹ **7.53 Crore** per Annum. Industry proposes to allocate ₹ **20.69 Crore** per annum towards CER. Break-up of capital cost and recurring cost earmarked for implementation of EMP is as given below:

ASPECT OF ENVIRONMENTAL MANAGEMENT	**COST IN CRORE [RS.]**	**RECURRING COST (CRORE /ANNUM) [RS.]**	**REMARKS**
Air Pollution	89.28	1.50	Capital cost would include air pollution control devices like ESPs, Scrubbers, Dust extraction and suppression systems, Stacks, Dry Fog system, Wind screen and the recurring cost would include operation and maintenance of pollution control devices
Water Pollution	14	0.12	Capital cost would include cost of ETP, STP and recurring cost would include operation and maintenance of pollution control

			devices
Noise Pollution	2.9	0.0035	Capital cost would include providing adequate sound enclosures for TG, CO-compressor, DG Set
Hazardous / Solid Waste Management	1.05	1.10	Capital cost would include expense for providing storage area for hazardous waste and membership charges of TSDF/CHWIF Site and recurring cost would be for solid/ hazardous waste disposal charges and Sampling & analysis charges of solid waste.
Environmental monitoring Programme	3.4	1.30	Capital cost would include expense OCEMS, Online weather station, online pH, NH3-N, Temp meter and recurring cost would include monitoring and analysis of noise level., Sample analysis charges & ambient air & fugitive emission sampling & analysis charges etc., Fresh water & wastewater sample analysis charges etc. Soil: recurring cost would be for Soil Sample analysis., Marine area environment monitoring
Green Belt	20	0.5	Capital cost would include development of green belt within the project premises and recurring cost would include maintenance charges and manpower salary etc.
Renewable Energy	113	--	Capital cost would include Installation of Solar and Windmill

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Fire safety & Occupational Health & Safety	3.41	0.35	Capital cost would include cost of OHS center, PPEs, fire & safety instruments and recurring cost would include maintenance charges and training, audit & health check-up etc.
Miscellaneous	53	2.66	Miscellaneous activity such as development of rain water harvesting system, Drainage Network for rain water, Environmental laboratory, Environmental Management system, miscellaneous study, statutory application fees, audit, training cost etc. and recurring cost would include biodiversity management plan, hiring of EMC and Conservation Plan for Schedule 1 species.
CER	20.69	--	Capital cost would include cost of CER activities such as promoting renewable energy, skill development Programme, Organic farming, water conservation (like village pond deepening), forestry etc. and develop infrastructure of schools, health facilities, Fishing activities, roads in nearby villages, Installation of additional solar street lights in nearby villages and Installation of a suitable capacity Sewage Treatment Plant with proper consultation with local administration in Bada Village.
Total (EMP + CER)	320.73	7.53	

Break up of CER activities is as given below:

Sr. No.	Type of Activities	Yearly amount to be spent in CER activities (Rs. In Crore)					Total Amount to be spent (Rs. in crore)
		1st Year	2nd Year	3rd Year	4th Year	5th Year	
1.	Provision of Solar light, solar panel and its maintenance in nearby villages within 10 km of study area.	0.10	0.10	0.10	0.10	0.10	0.50
2.	Infrastructure development Such as primary healthcare units and the fulfilment of the basic amenities in PHCs including mobile medical van and Provide Bala-Rasayana to Malnutrition Children in Aanganwadi and PHC of nearby Villages.	0.00	0.27	0.29	0.31	0.35	1.22
3.	Animal husbandry promotion through providing support for breed improvement, animal health care, Veterinary doctor and others as well as provides Fodder for cattle feeding nearby villages.	0.80	0.85	0.90	0.90	0.90	4.35
4.	Infrastructure development for quality of education, which will ultimately upgrade schools in nearby villages.	0.25	0.27	0.29	0.31	0.35	1.47

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5.	Development Initiatives for Fishing Communities such as Creation of infrastructure like ice plants, cold storages as well as provide operational inputs such as fishing boats, nets and engines.	0.15	0.15	0.15	0.15	0.15	0.75
6.	Promoting environment friendly and nature-based solutions to enhance productivity of farming (Organic Farming) activities. It covers capacity building on farming techniques, provision of highquality seeds/manure, efficient irrigation solutions, etc.	0.60	0.60	0.60	0.60	0.60	3.00
7.	Promoting activities for skill building to improve employment opportunities and women empowerment in nearby villages.	0.45	0.45	0.45	0.45	0.45	2.25
8.	Development of facilities within nearby villages such as roads.	0.20	0.20	0.20	0.20	0.20	1.00
9.	Activities for water conservation like deepening of nearby village ponds for storage of rainwater for domestic use of villagers.	0.50	0.50	0.50	0.50	0.50	2.50
10.	Promoting plantation activities through Forests by Heartfulness Institute in nearby villages.	0.20	0.20	0.20	0.20	0.20	1.00

11.	Installation of 100 solar street lights in nearby villages, namely Bada, Janakpur, Bhinsara, Panchotiya, Layja Mota, Layja Nana, Bhada, Bayath, Mapar, Bambhadai, Modhkuba and Padamapar. (Already 200 solar lights have been considered in point no. 1)	0.05	0.05	0.05	0.05	0.05	0.25
12.	Installation of a suitable capacity Sewage Treatment Plant with proper consultation with local administration in Bada Village.	-	0.10	2	0.30	-	2.40
Total		**3.30**	**3.74**	**5.73**	**4.07**	**3.85**	**20.69**

16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment officials for the functioning of EMC.

17. The PP submitted the Disaster and Onsite and Offsite Emergency Plans in the EIA report.

18. The estimated total project cost is **Rs.3563.08 Crores**. Total Employment will be **1200** persons as direct.

The Committee noted that Terms of reference (TOR) were granted by MoEF&CC on 10 August 2021. Further, PP has carried out various studies required for EIA and CRZ clearance namely (i) EIA Report; (ii) Marine EIA Report prepared by CSIR- NIO (Mumbai, Goa); (iii) Marine EIA Addendum Report prepared by CSIR- NIO (Mumbai, Goa); (iv) CRZ Report prepared by IRS, Anna University, Chennai; (v) CRZ Approved Maps prepared by IRS, Anna University, Chennai; (vi) Conservation Plan of Sea Turtle prepared by ZSI, Kolkata; (vii) Conservation & management plan for the conservation of Significant species prepared by GUIDE, Kachchh (viii) Conservation Plan for Sand Dune by CSIR-NIO, Mumbai etc.

Further, based on EAC recommendations, M/s T R Associates, NABET-accredited consultant has carried out additional 3 months data collection as well as additional 1 month data to valid the existing study and also submitted the undertaking that they have verified the EIA/EMP report and prepared an addendum report describing findings and observations. It was also presented that they have not observed any significant deviation in the EIA report prepared by the national repute organisation NEERI. The Committee also noted that PP has obtained CRZ Recommendation letter from GCZMA; Approval for Conservation Plan of Significant Species from PCCF, Gandhinagar as well as Stage-I and Stage-II Forest Clearances. The Committee noted that PP has submitted the relevant information in compliance to the OM dated 7th October, 2014 for status of land acquisition w.r.t. project site while considering the case for environment clearance under EIA Notification, 2006.

19. Intake pipeline and outfall pipeline fall in CRZ 1A, 1B and IV area as per demarcation. It was reported that construction of process plant and utilities fall outside the CRZ area. SCZMA recommendation has been obtained for Laying of Seawater Intake and effluent disposal underground pipeline through tunnel from unclassified Forest area, Sand dune area, intertidal area outside project boundary.

20. Public hearing was conducted by Gujarat Pollution Control Board on 17.10.2022, which was presided by SDM/Dy Collector. Major issues raised during public hearing were related to the Conservation of sand dunes, Environmental management plan, proximity to Vipassana meditation centre, Conservation of Ecology and Biodiversity, Accreditation of Consultants, environmentally sensitive receptor distances, employment, etc and PP submitted action plan to address the issues.

21. The proposal was considered by the Expert Appraisal Committee (Industry-3 sector) in its **72nd EAC Meeting held on 2nd January, 2024**, **74th EAC meeting held on 6th Februay,2024, 78th EAC meeting held on 30th April, 2024, wherein the proposal was deferred for want of requisite information now the proposal is placed in this 80th EAC meeting held on 7th June, 2024** where project was wherein the PP and an accredited Consultant, M/s. T. R Associates [NABET accreditation till **NABET Accreditation Number: NABET/EIA/2326/RA 0293 valid till 8th April, 2026**], made a detailed presentation on the salient features of the project. The minutes of the meeting are available on PARIVESH.

22. After, recommendation of the 80th EAC meeting held on 7th June for grant of EC, matter was examined in the Ministry and observed that the large number of written representations received in the ministry and the issues involved. Accordingly, it was decided to undertake site visit by the sub-committee of EAC (Industry -3) to

understand the ground situation. Based on the outcome of the same, project may be reconsidered by the EAC for further decision.

23. In the 84th EAC held on 21-22 August, 2024, the EAC constituted a sub-Committee to undertake a site visit and submit the report to the Committee for further consideration of the proposal. Further, the Sub-Committee visited the site of "Greenfield Chemical Complex" of M/s GHCL Ltd. on 09.10.2024.

24. Based on the site visit report, the proposal was again placed in the 87th EAC (Industry-3) meeting held on 21.10.2024. The proposal was considered by the EAC in its meeting held on 21st October, 2024 and the Committee discussed the site visit report undertaken by the Sub- Committee. Further the following issues were also discussed with project proponent.

PP informed the following :

(i) M/s. GHCL Limited will acquire a total of **546.3200 hectares** for the proposed project. In alignment with this requirement, steps have been initiated in accordance with the terms outlined in a Memorandum of Understanding (MOU) with consolidators. While the acquisition process is progressing, advances related to this have been planned and are being executed to ensure the necessary land acquisitions are in place prior to the commissioning of the project. Furthermore, 33% of the total identified area will be allocated for the development of a dedicated greenbelt, reinforcing our environmental commitment.

(ii) That M/s. GHCL Limited is committed to developing and maintaining an average **100 m wide greenbelt** (towards Vipassana centre/Bada village) in NW and North direction facing the entrance road. Also approximately an average **30-50 m wide greenbelt** in NE direction within the plant boundary, as per its environmental responsibility, which will be a part of total 33% greenbelt area.

(iii) That M/s. GHCL Limited will provide a Continuous Ambient Air Quality Monitoring Station (CAQMS) within the plant, towards the Vipassana Center, to ensure continuous monitoring and compliance.

(iv) That the M/s. GHCL Limited will provide an intermittent sprinkling system on both sides of the road and transportation route within plant, extending up to the storage yard, to effectively mitigate and control fugitive emissions during the transportation.

(v) That the M/s. GHCL Limited ensures that paghadiya fishing activities will not be disrupted due to the project activities, during both the construction and operation phases due to micro tunnelling operation in inter-tidal zone. The company commits to taking all necessary measures to prevent any interference with local paghadiya fishing practices.

(vi) That the M/s. GHCL limited will install flow meters at the effluent discharge system. Also, SS monitoring system shall be installed if reliable system is available.

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(vii) PP informed that the depth of micro-tunnelling depends on the topography. It will be approximately 14-15 meters below MSL and 5-6 meters below the seabed, extending beyond the intertidal zone.

(viii) The PP informed that local employment will be provided for the project as per the norms of State Government .

(ix) PP submitted the revised CER activities.

(x) PP submitted the revised capital cost and recurring cost earmarked for implementation of EMP.

The committee was satisfied with the response provided by PP on above information.

25. The EAC (Industry -3) in its 87th meeting held on 21st October, 2024, after detailed deliberations, recommended the project for the grant of environmental clearance and CRZ Clearance.

26. The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members /domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

27. The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

28. The EAC noted that the EIA reports are in compliance with the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

29. The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during the implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

30. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The expert members of the EAC found the proposal in order and recommended for grant of environmental clearance.

31. The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

32. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate change hereby accords Environmental and CRZ clearance to the project for proposed **project to produce Light Soda Ash (LSA) of 11,00,000 TPA capacity, 5,00,000 TPA of Dense Soda Ash (DSA) and 2,00,000 TPA Sodium Bicarbonate (SBC) located at near village Bada, Taluka - Mandvi, District - Kutch in the Gujarat by "Greenfield Chemical Complex" of GHCL Ltd**. under the provisions of the EIA Notification, 2006, subject to the compliance of terms and conditions as under:-

A. Specific Conditions:

(i) PP shall ensure that recommendations of SCZMA issued vide letter dated ENV/10/2021/187/T-Cell, dated 26/12/2023 for proposed greenfield chemical complex, sea water intake and effluent disposal facilities shall be implemented. Recommendations mentioned in Marine EIA Report; Conservation Plan of Sea Turtle report; Conservation & management plan for the conservation of Significant species prepared by GUIDE, Kachchh; Conservation Plan of Sand Dune by CSIR-NIO, Mumbai shall be implemented.

(ii) PP shall ensure that conditions stipulated in letter dated 18.07.2023 for diversion of 0.96ha unclass forest and letter dated 4.01.2024 for final stage II are implemented.

(iii) ESP alongwith Stack height of 130 m shall be provided to Imported

Coal/Lignite/ Pet coke fired with flue gas desulphurization 150TPH CFBC Boiler (6 Nos.) to control the particulate emission as per CPCB norms. Stack height of 30 m shall be provided to 5 MvA DG set(2/3 nos). Scrubber and Dust Collector system alongwith stack height of 68 m shall be provided to Coke or Briquette or Anthracite fired lime kiln to control the particulate emission as per CPCB norms. Water scrubber system alongwith stack height of 42m shall be provided to ammonia recovery system. Bagfilter alongwith adequate stack height shall be provided to lime grinding system/slaker. Scrubber, Bag filter shall be provided to Calciner unit. Scrubber shall be provided to Densification. Bagfilter shall be provided to Sodium bicarbonate unit. Scrubber and wet ESP shall be provided to lime kiln.

(iv) PP shall install continuous ambient air quality monitoring station towards Vipasana Centre to monitor real time ambient air quality status of the area.

(v) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(vi) Total fresh water requirement from sea water shall not exceed 14,61,038 m3/day.

(vii) NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing of the ground water for the project activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.

(viii) Total Effluent generation shall not exceed 14,48,508m3/day [Domestic - 160 m3/day + Industrial – 14,48,348m3/day (fresh seawater for dilution – 5,14,678 m3/day + effluent generation from soda ash & CPP plant – 1,26,830 m3/day + once through cooling – 8,07,000 m3/day]. The industrial effluent generated i.e. from RO/DM rejects, brine purification reject, distiller waste and boiler blowdown shall be mixed with fresh seawater for dilution and wastewater from once-through cooling and treated and disposed into the Arabian Sea as per the recommendation of NIO and after achieving the prescribed norms of CPCB/SPCB. Domestic effluent (160 m3/day) shall be treated in sewage treatment plant and treated sewage will be reused in landscaping & gardening purposes.

(ix) The Pipeline of seawater intake and effluent disposal shall be laid in a safe manner (using tunnelling) so that the sand dunes stretch between the plant boundary and respective land fall points are protected without any disturbance to their natural appearance and stability.

(x) GHCL Limited shall ensure that paghadiya fishing activities shall not be disrupted due to the project activities, during both the construction and operation phases due to micro tunnelling operation in inter-tidal zone. The company commits to taking all necessary measures to prevent any interference with local paghadiya fishing practices

(xi) PP shall ensure that no /untreated/treated water from the project site shall be discharged into seasonal water stream.

(xii) PP shall ensure the implementation of conservation plan of Rs. 136.50 Lakhs for schedule – I species as approved by Chief Wildlife Warden, Gujarat vide letter no WLP/32/A/50-52/2023-24 dated 24.04.2023 for greenfield project of M/s GHCL at Bada Village, Mandavi, Kutch, Gujarat.

(xiii) The PP shall develop greenbelt of at least 30-50 m width over an area of 18,02,856 m2(33%) within the project site mainly along the plant periphery, preferably within a year of the grant of EC. PP shall develop and maintain an average **100 m wide greenbelt** (towards Vipassana centre/Bada village) in NW and North direction facing the entrance road. Also approximately an average 30-50**m wide greenbelt** in NE direction within the plant boundary, as per its environmental responsibility, which will be a part of total 33% greenbelt area. The tree saplings selected for the plantation should be of sufficient height, preferably 6-ft shall be planted in greenbelt area. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xiv) Plantation of saplings shall be carried out as a part of tree plantation campaign "EK PED MA ke NAAM" and details of the same to be uploaded in the MeriLiFE portal (https://merilife.nic.in) in respect to this Ministry's OM No. IA3-22/3/2024-IA.III(E-241594) dated 24th July 2024.

(xv) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions and shall also engage Environment Officials. IN addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xvi) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹320 crore (Capital cost) and ₹ 7.53 Crore per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xvii) PP shall ensure the time bound implementation of CER activities of Rs. 20.69 Crores

(xviii) M/s GHCL shall take up initiatives to restore the water quality of the water pond located near Vipasna Centre. M/s GHCL shall carry out tree plantation drive along road of Bada Village in consultation with Village Administration.

(xix) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.

(xx) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(xxi) All the hazardous waste shall be managed and disposed as per the HWM Rules

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2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration site or sent for coprocessing. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development. 570 MT/A Fly ash shall be stored under covered silos handed over to the Cement manufacturers/ Cement Industry.

(xxii) Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. coal shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. Fly ash shall be collected in Silo. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

(xxiii) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms with full fledge infrastructure for truck drivers etc. Parking area should be paved to avoid fugitive dust emissions. There should be a learning centre over road behaviour for the drivers.

(xxiv) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.

(xxv) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xxvi) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xxvii) PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis. Any non- compliance or infringement should be reported to the concerned authority

(xxviii) PP shall set up occupational health Centre for surveillance of the worker's health within and outside the plant on a regular basis. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xxix) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xxx) PP shall provide training to 10 local youth every quarter on environment management including air pollution control device, ETP, solid waste management, fly ash based brick manufacturing, green belt development as part of skill development programme.

(xxxi) Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme.

(xxxii) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.

(xxxiii) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be fire proof. The solvent

storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xxxiv) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xxxv) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

(xxxvi) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

(xxxvii) The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

B. General Conditions:

(i) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

(ii) The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.

(iii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.

(iv) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

(v) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

(vi) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.

(vii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

(viii) The project proponent shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.

(ix) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.

(x) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at **https://parivesh.nic.in/**. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.

(xi) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.

(xii) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

33. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

34. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

35. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

36. The above conditions shall be enforced, *inter-alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any

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other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

37. This issues with approval of the competent authority.

(A. N Singh)
Scientist 'F'

Copy to: -

1. The Principal Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, 8th Floor, Gandhi Nagar - 382 010 (Gujarat)
2. Deputy Director General of Forests (C) Ministry of Env., Forest and Climate Change, Integrated Regional Office, Gandhi Nagar, A-Wing – 407 & 409, Aranya Bhawan, Near CH-3 Circle, Sector-10A, Gandhi Nagar - 382010
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -32
4. The Member Secretary, Gujarat State Pollution Control Board, Paryavaran Bhawan, Sector 10 A, Gandhi Nagar-382 043 (Gujarat)
5. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
6. The District Collector, District **KUTCH**, Gujarat.
7. Guard File/Monitoring File/Website/Record File/Parivesh portal

t.c.

(A. N. Singh)
Scientist 'F'

Signature Not Verified
Digitally signed by: A N Singh
Designation: Scientist F
Date and Time: 12/12/2024 11:51:13 AM