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BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH AT NEW DELHI

ORIGINAL APPLICATION NO 530 /2023

IN THE MATTER OF-:

ANUJ KUMAR

PETITIONER

VERSUS

STATE OF UTTARAKHAND & ORS.

RESPONDENTS

INDEX

DATE 26/2/24 **PRAKASH PANDEY**

PLACE Haridwar **COUNSEL FOR THE APPLICANT**

E- MAIL –advprakashpande@gmail.com

Mobile No 7805008055/8871849683

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OBJECTION ON BEHALF ON APPLICANT TO THE JOINT INSPECTION REPORT FILED ON DATED 24.01.2024

Applicant respectfully submitted that

1. That Applicant has filed OA Against respondent no 7 & 8 sugar mills(Distillery unit) situated in tehsil lascar ,Dist Haridwar not complying the mandatory terms and condition of consent granted by Uttarakhand state pollution control Board and violating direction of CPCB

2. That Original Application fied by Applicant was registered as OA 530/2023 Hon'ble NGT vide order dated 23/08/2023, directed that, "Since the Committee has already been constituted, therefore, we direct the said Committee to look into and consider the grievance of the present application also and submit the report in respect thereof along with the report in terms of the earlier directions."

3. That Earlier to this case other case also has been filed agisnt respondent no 7 , and joint committee constituted , comprising of Central Pollution Control Board (CPCB), Regional Office, Ministry of Environment, Forest and Climate Change (MoEF&CC), National Mission for Clean Ganga (NMCG), Uttarakhand Environment Protection and Pollution Control Board (UEPPCB), Uttar Pradesh Pollution Control Board (UPPCB) and District Magistrates (DMs) of Haridwar and Muzaffarnagar verify the factual position.
4. That joint committee has carried out inspection on 13th and 14th Dec 2023 ansd submitted same on 24.01.2024 before Hon'ble Tribunal, unfortunately eyewash report produced and some facts also conseal in this report
5. That applicant has made following prayer in OA

    A. *That the Hon'ble Tribunal may be pleased to direct the respondent no 7 to install incineration Boiler immediately to protect ground water*
    B. *That the Hon'ble Tribunal may be pleased to direct respondent no 7 to develop concrete Nala from industry premises to Hadwada drain*
    C. *That the Hon'ble Tribunal may be pleased to direct to respondent no 7 to develop green area in 10 acre area*
    D. *That the Hon'ble Tribunal be pleased to direct respondent no 7 to compensate for the loss caused to the environment by assessing the damage according to the polluter pays*

principle or as what the Hon'ble Tribunal Deems fit and proper

Any other Relief which this Hon'ble Tribunal deems fit and proper in the interest of justice .

6. That joint inspection report considering applicant allegation in page no 143/38 , and mention below factual status in point no 3 that

3. In respect to the grievance made by the applicant/petitioner in O.A. No. 530 of 2023 following are submitted:

a) To achieve Zero Liquid Discharge (ZLD), the unit has installed Dryers, which is the part of ZLD system and the details of Dryers are mentioned in Section 2.1.1-C-IV.

b) As observed by the joint committee, the unit has constructed concreted drain up to a stretch of 1100 meter along the unit premise.

c) The unit has developed total 15 hectare of land as green belt (35.71%) within the complex, which is approximately 35.71% of total land area. The unit has approx. 5000 nos. of big trees and approx. 18000 nos. of small trees inside the premises.

7. That above mention observation of joint committee is completely false and actual state is completely different , applicant respectfully submitting that on below ground joint committee report is incorrect-:

PRAYER NO 1 That the Hon'ble Tribunal may be pleased to direct the respondent no 7 to install incineration Boiler immediately to protect ground water

REPLY OF JOINT COMMITTEE To achieve Zero Liquid Discharge (ZLD), the unit has installed Dryers, which is the part of ZLD system and the details of Dryers are mentioned in Section 2.1.1-C-IV.

OBJECTION-

(i) joint committee wilfully ignore CPCB direction dated 07.12.2015 (ANNEXURE A2) where it is categorically mention that "installing system for Evaporation-concentration by using appropriate technology such as MEE and incineration boiler(slope, fired/mixed with aux,fuel etc) using appropriate technology by march 31,2016"

(ii)Joint Committee also not consider CPCB Direction dated 19/01/2023(Annexure A10 page **197**) which also made mandatory .

(iii) Joint committee havd conceal this fact that Distilleries with capacity of about 30 KLD to 45 KLD can successfully operate through dryer system but respondent no 7 having distillery Plant with 120 KLPD

(iv) inspection carried out by National Sugar Institute , mention in its report annexure A13 page **230** that spray dryer technology can drying concentrated bio methanated spent wash about 50% of total generated quantity

PRAYER NO 2 That the Hon'ble Tribunal may be pleased to direct respondent no 7 to develop concrete Nala from industry premises to Hadwada drain

REPLY OF JOINT COMMITTEE b) As observed by the joint committee, the unit has constructed concreted drain up to a stretch of 1100 meter along the unit premise.

OBJECTION- That joint committee had produced misleading fact that 1100 meter concreted construction develop within unit premises , but applicant has made prayer for outside unit premises and which is around 9 KM , as per according to NOC granted by Uttar Pradesh Pollution control Board on dated 12.02.2002 (Annexure A7 page 55 point 14 that " 14. उद्दोग परसिर से हड्वाडा नाले तक बनिा] अवरुद्ध शुद्धकृित उत्प्रवाह के नसि्तारण हेतु पक्के नाले का नरि्माण करेगा " □□ □□□□□□□ □□□□□ " this is not complied by Respondent no 7 which causing water pollution but joint committee had conceal this fact and share misleading fact.**(Photographs attached as annexure A16 page 281-283)**

PRAYER NO 3 That the Hon'ble Tribunal may be pleased to direct to respondent no 7 to develop green area in 10 acre area

REPLY OF JOINT COMMITTEE c) The unit has developed total 15 hectare of land as green belt (35.71%) within the complex, which is approximately 35.71% of total land area. The unit has approx. 5000 nos. of big trees and approx. 18000 nos. of small trees inside the

premises.

OBJECTION –(i) That joint committee had submitted completely false fact about green belt area , no single photo of green belt area submitted by joint committee , if there is 5000 nos big trees are planted ,they must share photo with GPS mapping as well as satellite image but committee has chosen not to submitted any single photo because there is no green area develop as per NOC

(ii) That specific condition imposed through Environment clearance (Annexure A3 page 28) as well as well as consent granted on dated 12.10.2021 ,point no 15 (Annexure A11 page 204 that 3 layers of green belt area must be develop in surrounding area of unit but that is not compiled

(iii)That during expansion of project it is mention in EAC agenda no 38.5 annexure A15 page 260 that industry has already developed greenbelt area in area of 35% i.e 5.00 hect out of total area of project and in joint committee report it mention that 15 hect of land developed as green belt area

(iv)That in minutes of the 38th meeting of the expert appraisal committee , (Annexure A15 page 258 point(xii) it is mention that

*(xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department***. *Records of tree canopy shall be monitored through remote sensing map***

But no map produced by joint committee

(v) That photographs attached surrounding area of unit , no green belt area developed Annexure A17 page 284-287)

PRAYER NO 4 That the Hon'ble Tribunal be pleased to direct respondent no 7 to compensate for the loss caused to the environment by assessing the damage according to the polluter pays principle or as what the Hon'ble Tribunal Deems fit and proper

REPLY OF JOINT COMMITTEE - no reply

OBJECTION (i) That industry is causing immense pollution and disturbing ground water as well as whole Environment, in spite of direction of Hon'ble NGT and different authority respondent no 7 still discharging polluted water outside plant premises which can be clearly glaring from recent photographs (annexure **A12 page 205-217**)

(ii)Inspections carried out by National sugar Institute on dated 1-/01/23 whereas major parameters viz pH,TDS,COD and other heavy metals are observed.(Annexure A13 page 234 point XI) and water is ground water is polluted from 1 to 5 km

(iii)On the basis of NSI Kanpur report hand pump was also sealed on dated 08.09.2023, one is just adjacent to unit and another is 5 km away from unit it showed that ground water of 5 km surrounding area is polluted because of unit activity (Annexure A14 page235-239

(iv) That unit is discharging polluted water through pipe outside plant premises which can be seen from photographs (Annexure A12 page 216-217

PRAYER

That respectfully submitted that Hon'ble Tribunal may grant allow prayer as prayed in Original Application and reject this eyewash report submitted by Joint committee and direction issued for removing of all pipes which using for discharging polluted water

DATE 26/2/24

PLACE Haridwar

PRAKASH PANDEY

COUNSEL FOR THE APPLICANT

E- MAIL –advprakashpande@gmail.com

Mobile No 7805008055/8871849683

S R No. 1584/23

Time 4:02 AM/PM

R. P. Sharma
Advocate & Notary
Roorkee Distt. Haridwar
Reg. No. 1857/2001
Exp. Dt. 15/02/2026
NOTARIAL NOTARIAL
NOTARY GOVT. OF INDIA

27/2/2024

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AFFIDAVIT

I ANUJ KUMAR S/O RICHHPAL SINGH Aged 37 Years R/O VILL KEHRA LASKAR , HARIDWAR, UTTARAKHAND do hereby solemnly affirm on oath as under

1. That ,I am the applicant in the instant case and fully conversant with the facts of the case and hence, competent to swear on this affidavit.
2. That ,i am filing the objection Along with Annexure against the joint inspection report, inspection date 13& 14 Dec ,2023 , before the Hon'ble Tribunal the Contents from Para 1 to last have been drafted on my instruction and the same have been explained to me by my counsel.
3. That ,i have been read and understood the contents and based on the documents filed along with this .

DEPONENT

VERIFICATION

I, The above named deponent do hereby verify that the contents of the paras above are true and correct and no material fact has been concealed.

Signed and verified on this Day of February 2024 at

DEPONENT

LT. 9. of Sri. Arun Kum

ATTESTED & VERIFIED

27/2/2024

Rajendra Prashad Sharma
Advocate & Notary
Roorkee Distt. Haridwar (U.P.)
Reg. No. 1857/2001

VERIFIED BY

IVER SHARMA
Advocate
Civil Court, Roorkee
Regd. No. - 560/2009

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IN-UK07637558133268W

सत्यमेव जयते

INDIA NON JUDICIAL

Government of Uttarakhand

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Certificate No.	:	**IN-UK07637558133268W**
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Account Reference	:	NONACC (SV)/ uk1278504/ ROORKEE/ UK-HD
Unique Doc. Reference	:	SUBIN-UKUK1278504219767795225 97W
Purchased by	:	ANUJ KUMAR
Description of Document	:	Article 4 Affidavit
Property Description	:	NA
Consideration Price (Rs.)	:	0 (Zero)
First Party	:	ANUJ KUMAR
Second Party	:	STATE OF UTTARAKHAND AND ORS
Stamp Duty Paid By	:	ANUJ KUMAR
Stamp Duty Amount(Rs.)	:	10 (Ten only)

M. P. Sharma
Notary
Distt. Haridwar
Reg. No. 155/2001
Exp. Dt. 15/02/2026
27/2/2024
NOTARY GOVT. OF INDIA

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Statutory Alert:
1. The authenticity of this Stamp certificate should be verified at 'www.shcilestamp.com' or using e-Stamp Mobile App of Stock Holding. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
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SPEED POST

PJ-14099/4/2021-WQM-II-HO-CPCB-HO 8752-8755 January 19, 2023

To
The Member Secretary
All SPCBs / PCCs (List enclosed)

SUB: Directions under section 18(1)(b) of the Water (Prevention & Control of Pollution) Act, 1974 to enlist technologies to ensure Zero Liquid Discharge (ZLD) in Molasses based Distilleries

WHEREAS, the Central Pollution Control Board (CPCB), has delegated powers vested under Section 18 (1) (b) of the Water (Prevention & Control of Pollution) Act, 1974 to the Member Secretary, Central Pollution Control Board vide its resolution made in 196th Board meeting dated 29th March, 2022 to issue directions under Section 18 (1) (b) of the Water (Prevention & Control of Pollution) Act, 1974 to the State Pollution Control Board(s); and

WHEREAS, under Section 17 of the Water (Prevention & Control of Pollution) Act, 1974, one of the functions of the State Pollution Control Boards(SPCBs)/Pollution Control Committees(PCCs) is to plan a comprehensive programme for the prevention, control or abatement of pollution of streams, wells and air pollution in the State/Union territory and to secure the execution thereof; and

WHEREAS, the SPCBs and PCCs are empowered to stipulate standards for discharge of environmental pollutants for various categories of industries more stringent than those notified by the Central Government, under the Environmental (Protection) Act, 1986 and rules framed there under; and

WHEREAS, CPCB issued directions dated 07.12.2015 to SPCBs of Ganga basin states namely Uttarakhand, Uttar Pradesh, Bihar, West Bengal, Haryana, Chhattisgarh and Madhya Pradesh to ensure achievement of Zero Liquid Discharge in all molasses based distilleries through either of the two processes specified below:

i. Installing systems for slop separation for reduction in volume of spent wash and evaporation- concentration or only evaporation concentration so as to reduce the volume to minimum 40 % with 30% solid concentration and water conservation by using appropriate technology such as Reverse Osmosis (RO) & Multi Effect Evaporator (MEE) or only MEE by December 31, 2015 followed by biocomposting with press mud from sugar industry; or Installing system for Evaporation –concentration by using appropriate technology such as MEE and incineration boiler (Slop boiler/mixed with aux. fuel etc.) using appropriate technology.

ii. Installing advance process technologies (continuous fermentation, multi pressure distillation, integrated evaporation etc.) for reduction of spent wash generation to 6-8 kl/kl of alcohol produced followed by evaporation –concentration and incineration using appropriate technology such as MEE and incineration boiler.

AND WHEREAS, Council of Scientific & Industrial Research-Central Salt and Marine Chemical Research Institute (CSIR-CSMCRI), Bhavnagar, Gujarat has developed an innovative and indigenous technology namely "the technology for recovery of FCO grade potash fertilizer from molasses based distillery spent wash" (hereinafter referred as 'the technology') and forwarded their request vide letter dated 23.07.2020 to CPCB for approval as an option for achieving ZLD in molasses-based distilleries for environmental clearance by Ministry of Environment, Forest & Climate Change (MoEF&CC) and State Pollution Control Boards (SPCBs), and;

WHEREAS, CSIR-CSMCRI, Bhavnagar vide letter dated 28.11.2022 requested Ministry of Environment, Forest & Climate Change, New Delhi for inclusion of "technology for recovery of FCO grade potash fertilizer from molasses based distillery spent wash" in MoEF&CC/CPCB guidelines as well as in the drop-down menu of online Environment Clearance (EC) application portal of MoEF&CC, as one of the options to achieve Zero Liquid Discharge (ZLD) in molasses based distilleries; and

WHEREAS, the technology has been examined and the salient features of the technology are as follows:

1. Spent wash processing with the technology developed by CSIR-CSMCRI results in production of potassium nitrate which is an FCO grade potash fertilizer, Magnesium Sulphate, Ammonium Sulphate. As reported, potash free organics/De-Potashed Vinasses (DPV) can be used for applications like animal feed binder, fuel, activated carbon production.
2. The technology employs chemical treatment with patented chemicals (patented with CSIR-CSMCRI) and requires further concentration-incineration based methods for achieving ZLD in molasses based distilleries and can be retrofitted to all existing distilleries having raw and bio-methanated spent wash to generate potash as additional product integrating new equipment and using all existing equipment. During the process, after recovery of Gypsum as product (75% solid concentration), Potash (K content >12%, solid concentration >90%) & condensate water through concentration and chemical treatment, the lean spent wash shall be concentrated to more than 60% solid content to either produce De-Potashed Vinasses (65-70% solid content) or shall be disposed through compositing/concentration-incineration routes.

WHEREAS, the details about the technology developed are available at CSIR-CSMCRI's website (https://www.csmcri.res.in/technologies/tech-details/8164).

NOW, THEREFORE, in exercise of the powers conferred under section 18(1)(b) of the water (Prevention & Control of Pollution) Act, 1974, you are hereby directed that the "technology for recovery of FCO grade potash fertilizer from molasses based distillery spent wash" developed by CSIR-CSMCRI may be considered as one of the options for achieving Zero Liquid Discharge (ZLD) in Molasses based distillery with following provisions:

1. Spent sludge generated during process may be used as cattle feed, as proposed by CSIR-CSMCRI, subject to certification from concerned authority for suitability of its use as cattle feed.
2. Spent liquor left after recovery of potash and inorganic salt may be used as binder in cattle feed in lieu of molasses, as proposed by CSIR-CSMCRI, subject to verification/certification of suitability for its use as cattle feed from concerned authority regarding quality & sale of proposed by-products including packaging super scribed by the name of manufacturer and product quality.
3. In case the spent liquor (after recovery of potash and inorganic salts) is not used as bye-product as mentioned above, Board shall ensure that proper & adequate system for concentration and evaporation (minimum 60% solids) and incineration shall be installed for management of spent liquor left after recovery of potash & others inorganic salt, and land application of spent liquor/spent wash shall not be considered.
4. Ensure that other wastewater stream such as spent lees, condensate, boilers/cooling tower blow down shall be treated through CPU for reuse in the process.

(Prashant Gargava)
MEMBER SECRETARY

Copy to:

1. Additional Secretary (CP Division) Ministry of Environment, Forest & Climate Change Indira Paryavaran Bhawan, Jorbagh Road, New Delhi-110003	: for kind information please
2. The Regional Director Regional Directorate, Chandigarh Central Pollution Control Board First Floor, BSNL Exchange Building Sector-49, Chandigarh-160 047	: for kind information please
3. The Regional Director Regional Directorate (North) Central Pollution Control Board Ground Floor, PICUP Bhawan, Vibhuti Khand Gomti Nagar, Lucknow-226 010 (U.P.)	: for kind information please

4. The Regional Director Regional Directorate, Kolkata Central Pollution Control Board Southernd Conclave, Block 502 5th & 6th Floors, 1582, Rajdanga Main Road Kolkata-700 107 (W.B.)	: for kind information please
5. Divisional Head I.T., Division, CPCB Delhi	: with request to upload on the website please

(Prashant Gargava)

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List of State Pollution Control Boards and Pollution Control Committees

S. No.	Member secretary
1	The Member Secretary Andhra Pradesh Pollution Control Board, D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010
2	The Member Secretary Assam Pollution Control Board, Bamunimaidan, Guwahati, Assam - 781021
3	The Member Secretary Arunachal Pradesh State Pollution Control Board, Department of Environment & Forests, Paryavaran Bhawan, Yupia Road, Papu Nalah, Naharlagun-791110
4	The Member Secretary Bihar State Pollution Control Board, Parivesh Bhawan, Plot No. NS-B/2 Patliputra Industrial Area, Patliputra, Patna (Bihar) - 800 010
5	The Member Secretary Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block Sector-19, Atal Nagar District- Raipur Chhattisgarh- 492002
6	The Member Secretary Haryana State Pollution Control Board, C-11, Sector 6, Panchkula Haryana-134109
7	The Member Secretary Jharkhand State Pollution Control Board, T.A. Division Building, HEC, P.O. Dhurwa, Ranchi-834 004.
8	The Member Secretary J & K State Pollution Control Board, Parivesh Bhawan, Forest Complex, Gladni, Narwal, transport Nagar, Jammu, Jammu and Kashmir 180004
9	The Member Secretary Karnataka State Pollution Control Board, "Parisara Bhavan" 4th & 5th Floor, # 49, Church Street, Bangalore-560 001.

10	The Member Secretary Kerala State Pollution Control Board, Pattom P.O, Thiruvananthapuram –695 004
11	The Member Secretary Madhya Pradesh Pollution Control Board, Paryawaran Parisar, E-5 Arera Colony, Bhopal – 462 016.
12	The Member Secretary Maharashtra Pollution Control Board, 2nd, 3rd & 4th floor, Opp. Cine planet, Near Sion Circle, Sion (E) Mumbai- 400 022.
13	The Member Secretary Manipur Pollution Control Board, Lamphalpat, Imphal West D.C. Office Complex – 795004
14	The Member Secretary Nagaland Pollution Control Board, Signal Point, Dimapur, Nagaland 797112 Nagaland
15	The Member Secretary Himachal Pradesh State Pollution Control Board, Him Parivesh, Phase-III, New Shimla, Himachal Pradesh–171 009.
16	The Member Secretary Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10A, Gandhi Nagar –382 010.
17	The Member Secretary Goa State Pollution Control Board, Nr. Pilerne Industrial Estate, Opp. Saligao Seminary, Saligao - Bardez Goa - 403511
18	The Member Secretary Meghalaya State Pollution Control Board, "ARDEN", Lumpyngngad, Shillong-793 014 Meghalaya
19	The Member Secretary Mizoram State Pollution Control Board, Mizoram New Capital Complex (MINECO), Khatla, Khatla Thlanmual Road, Aizawl, Mizoram - 796001

20	The Member Secretary State Pollution Control Board, Odisha Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751 012, Odisha
21	The Member Secretary Punjab Pollution Control Board, Vatavaran Bhawan, Nabha Road, Patiala Punjab - 147 001
22	The Member Secretary Rajasthan Pollution Control Board, 4, Jhalana Institutional Area Jhalana Doongri, Jaipur -302004 Rajasthan
23	The Member Secretary State Pollution Control Board, Sikkim Forest and Environment Department Government of Sikkim Forest Secretariat, C Block, Deorali - 737102, Gangtok East Sikkim
24	The Member Secretary Uttarakhand Pollution Control Board, Gaura Devi Bhawan, 46 B IT Park Sahastradhara, Dehradun, Uttarakhand - 248001
25	The Member Secretary Uttar Pradesh Pollution Control Board, Building No. TC-12V Vibhuti Khand, Gomti Nagar, Lucknow – 226 010
26	The Member Secretary Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai - 600 032
27	The Member Secretary Tripura State Pollution Control Board, Parivesh Bhawan, P.N. Complex, Gorkhabasti, P.O. Kunjaban, Agartala, Tripura-799006
28	The Member Secretary West Bengal Pollution Control Board, Paribesh Bhawan 10A, Block-LA, Sector-III Bidhannagar, Kolkata-700 106

29	The Member Secretary Andaman & Nicobar Pollution Control Committee, Dolly Gunj, Port Blair-744102, Andaman and Nicobar
30	The Member Secretary Chandigarh Pollution Control Committee, Paryavaran Bhawan, Ground Floor, Sector-19 B Madhya Marg, Chandigarh
31	The Member Secretary Dadra and Nagar Haveli and Daman and Diu Pollution Control Committee, 1st Floor, Udhyog Bhavan Bhenslore, Dunetha Nani Daman, Daman - 396210
32	The Member Secretary Delhi Pollution Control Committee, 6th floor, C wing, Delhi Secretariat, I P Estate, Delhi-110002
33	The Member Secretary Lakshadweep Pollution Control Committee, Administration of UT of Lakshadweep, Dept. of Science, Technology. Kavarati – 682 555.
34	The Member Secretary Puducherry Pollution Control Committee, III Floor, PHB Building, Anna Nagar, Puducherry – 600 005.
35	The Member Secretary Telangana State Pollution Control Board, Paryavaran Bhawan, A-3, Industrial Estate, Sanath nagar, Hyderabad- 5000 018

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Annexure A11

मुख्यालय
उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड
"गौरा देवी पर्यावरण भवन"
46बी, आई0टी0 पार्क, सहस्त्रधारा रोड, देहरादून
Web : www.ueppcb.uk.gov.in. E-mail : msukpcb@yahoo.com

पत्रांक–यूकेपीसीबी/एचओ/एनओसी–7545/2021/967 दिनांक 12.10.2021

सेवा में,

M/s Rai Bahadur Narain Singh Sugar Mills Ltd.
Distillery Division,
Haridwar Road, Laksar,
Distt- Haridwar.

Registered/AD

CAF ID-8545
CTE- Expand

विषय :– पर्यावरणीय प्रदूषण की दृष्टि से पूर्व में स्थापित इकाई को क्षमता विस्तारीकरण हेतु की स्थापना सहमति पत्र (CTE-Expansion) निर्गमन।

महोदय,

कृपया उपरोक्त विषयक आपके आवेदन पत्र दिनांक–10.09.2021 (Application no.- 1658694) एवं तत्सम्बन्धी क्षेत्रीय कार्यालय की निरीक्षण आख्या एवं संस्तुति का बोर्ड मुख्यालय में परीक्षण किया गया एवं परीक्षणोपरान्त लिए गए निर्णय के क्रम में उद्योग को पर्यावरणीय प्रदूषण के दृष्टिकोण से निम्नलिखित विशिष्ट शर्तो एवं सामान्य शर्तो के अनुपालित अनुपालन की शर्त के साथ सशर्त क्षमता विस्तारीकरण हेतु स्थापना सहमति पत्र (CTE-Expansion) निर्गत किया जाता है।

1- यह क्षमता विस्तारीकरण हेतु स्थापना सहमति पत्र निम्नलिखित विशिष्ट विवरणों के लिए ही निर्गत किया जा रहा है :–

(क) स्थल :	Haridwar Road, Laksar, Distt- Haridwar.
(ख) उत्पादन :	Ethanol/ENA/RS – 120 KL/day (Including expansion)
(ग) मुख्य कच्चे माल :	Molasis – 372 m^3 /day (Including expansion)
(घ) औद्योगिक उत्प्रवाह :	Nil
(ङ.) प्रयुक्त ईंधन :	Nil

उपर्युक्त विषय वस्तु में किसी भी प्रकार से परिवर्तन करने पर पुनः स्थापना हेतु सहमति पत्र प्राप्त करना आवश्यक होगा।

2- उद्योग में सभी आवश्यक यन्त्र, संयंत्र, हरित पट्टिका, उत्प्रवाह शुद्धिकरण संयंत्र तथा वायु प्रदूषण नियन्त्रण की व्यवस्था की स्थापना में की गई प्रगति रिपोर्ट इस कार्यालय में प्रत्येक माह की दसवीं तारीख तक निरन्तर प्रेषित करें।

3- उद्योग इकाई में परीक्षण उत्पादन तब तक प्रारम्भ नहीं करें, जब तक कि वह बोर्ड से जल अधिनियम एवं वायु अधिनियम के अन्तर्गत सहमति (CTO) प्राप्त न कर ले। जल सहमति एवं वायु सहमति (CTO) प्राप्त करने हेतु इकाई में उत्पादन प्रारम्भ करने की तिथि से कम से कम 2 माह पूर्व निर्धारित सहमति आवेदन पत्रों को उत्पादन पूर्व तथा आवेदन का उल्लेख करते हुए इस कार्यालय में अवश्यक जमा कर दिया जाये। यदि उद्योग उपरोक्त का अनुपालन नहीं करता है तो उक्त अधिनियमों के वैधानिक प्रावधानों के अन्तर्गत उद्योग के विरूद्ध बिना किसी पूर्व सूचना के विधिक कार्यवाही की जा सकती है।

4- उद्योग में परीक्षण उत्पादन से पूर्व क्षेत्रीय कार्यालय द्वारा इकाई का निरीक्षण सुनिश्चित कराया जाये।

5- जनित घरेलू उत्प्रवाह को सेप्टिक टैंक के माध्यम से सोकपिट में विस्तारित किया जाये।

6- उद्योग द्वारा केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा जल (प्रदूषण निवारण एवं नियंत्रण) अधिनियम, 1974 के अन्तर्गत निर्गत निर्देश दिनांक 07.12.2015 के अनुसार Zero Liquid Discharge के मानकों का अनुपालन सुनिश्चित किया जाये।

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डिस्टलशन प्रक्रिया से जनित स्पेंट वाश को Multi Effect Evaporator (MEE) के माध्यम से Concentrate किया जाये, तत्पश्चात् Concentrated Spent wash को Spray dryer के माध्यम से निस्तारित किया जाये।

8- उद्योग की अन्य प्रक्रियाओं से जनित उत्प्रवाह यथा –MEE Condensate, Spent Lees, Floor Washing etc. का शुद्धिकरण Condensate Polishing Unit (Secondary Effluent Treatment Plant) के माध्यम से शुद्धिकृत कर पुनः प्रक्रिया में प्रयुक्त किया जाये। किसी भी दशा में शुद्धिकृत/अशुद्धिकृत उत्प्रवाह परिसर से बाहर निस्तारित न किया जाये।

9- Multi Effect Evaporator के Inlet & Outlet में Mass Flow meters की स्थापना की जाये तथा उक्त के data को Real time data के आधार पर केन्द्रीय प्रदूषण नियंत्रण बोर्ड एवं राज्य बोर्ड को प्रेषित् किया जाना सुनिश्चित् करें।

10- उद्योग प्रतिवर्ष माह सितम्बर तक पर्यावरणीय वक्तव्य प्रस्तुत करना सुनिश्चित करें।

11- यह स्थापना हेतु सहमति पत्र जारी होने की तिथि से 05 वर्ष तक की अवधि के लिए वैध होगा।

12- उद्योग का संचालन इस प्रकार से किया जाये, कि परिवेशीय वायु गुणवता सदैव बोर्ड मानकों के अनुरूप रहे।

13- उद्योग से जनित ठोस अपशिष्ट पदार्थो को इस प्रकार निस्तारित किया जाये, कि जल, वायु तथा मृदा प्रदूषण की सम्भावना न रहे।

14- उद्योग का संचालन इस प्रकार किया जाये, कि प्रदूषण सम्बन्धी शिकायतें प्राप्त न होवें। प्रदूषण सम्बन्धी जन –शिकायतें प्राप्त होने एवं पुष्टि होने पर स्थापना हेतु सहमति पत्र रिवोक कर दी जायेगी। जिसका सम्पूर्ण उत्तरदायित्व उद्यमी का होगा।

15- उद्योग परिसर में चारों तरफ कम से कम 3 कतारों वाली हरित पट्टिका विकसित की जाये। हरित् पट्टिका हेतु सघन तथा छायादार वृक्षो का चयन किया जाये। हरित् पट्टिका हेतु निर्धारित भूमि पर निर्माण कार्य न किया जाये।

16- उद्योग में परिसंकटमय एवं अन्य अपशिष्ट (प्रबन्ध एवं ट्रांसबाउण्ड्री मूवमेन्ट) नियम 2016 का अनुपालन सुनिश्चित करें तथा उत्पादन से पूर्व परिसंकटमय अपशिष्ट के निस्तारण हेतु बोर्ड से प्राधिकार प्राप्त किया जाये।

17- उद्योग में खतरनाक/परिसंकटमय रसायन विनिर्माण, भण्डारण एवं आयात नियम 1989 का पालन किया जाये।

18- उद्योग में सुरक्षा सम्बन्धी समस्त उपाय किये जायें तथा उत्पादन प्रारम्भ करने से पूर्व सक्षम विभागों से अनापत्ति प्रमाण पत्र प्राप्त किया जाये।

19- उद्योग में बोर्ड की पूर्वानुमति के बिना फर्नेश/ओवन/ब्वायलर/डी0जी0 सेट आदि की स्थापना न की जाये।

20- उद्योग द्वारा प्रस्तावित 45टन/दिन क्षमता के 02 BMSW Dryer में वायु प्रदूषण नियंत्रण हेतु साईक्लोन डस्ट कलैक्टर, वैट स्क्रबर व बोर्ड मानकों के अनुरूप ऊँची चिमनी की स्थापना एवं रखरखाव इस प्रकार सुनिश्चित् किया जाये कि जनित उत्सर्जन की मात्रा सदैव बोर्ड मानकों के अनुरूप रहे।

21- उद्योग द्वारा MoEF&CC द्वारा निर्गत पर्यावरणीय स्वीकृति पत्र सं0–IA-J-11011/618/2010-IA II(I) दिनांक 27.08.2021 में वर्णित निर्देशों का अनुपालन सुनिश्चित् किया जाये।

22- उद्योग में स्थापित जल एवं वायु प्रदूषण नियन्त्रण व्यवस्था के प्रभावी संचालन हेतु पृथक–2 विद्युत मीटरों की स्थापना सुनिश्चित की जाये। उक्त हेतु प्रतिदिन विद्युत/रसायनों की खपत का विवरण लॉग बुक में दर्ज किया जाये।

23- यह स्थापनार्थ सहमति जल अधिनियम एवं वायु अधिनियम के अन्तर्गत निर्गत की जा रही है। उद्योग सक्षम विभागों से आवश्यक अनुमति प्राप्त करना सुनिश्चित् कर लें।

कृपया ध्यान दें कि उपर्युक्त लिखित विशिष्ट शर्तो एवं सामान्य शर्तो का प्रभावी एवं सन्तोषजनक अनुपालन न करने पर बोर्ड द्वारा निर्गत क्षमता विस्तारीकरण हेतु स्थापना सहमति (CoE) पत्र निरस्त कर दिया जायेगा। बोर्ड का अधिकार सुरक्षित है, कि क्षमता विस्तारीकरण हेतु स्थापना सहमति पत्र (CTE-Expansion) की शर्तो में संशोधन किया जाये अथवा निरस्त कर दिया दिया जाये।

उपर्युक्त विशिष्ट एवं सामान्य शर्तो के सम्बन्ध में उद्योग द्वारा इस कार्यालय में दिनाँक 09.11.2021 तक प्रथम अनुपालन आख्या अवश्य प्रेषित् की जाये। अनुपालन आख्या नियमित प्रेषित की जाये, अन्यथा क्षमता विस्तारीकरण हेतु स्थापना सहमति पत्र निरस्त कर दिया जाएगा।

भवदीय

(एस0पी0 सुबुद्धि)
सदस्य सचिव

पृ0 सं0 एवं दिनाँक/उपरोक्तानुसार

प्रतिलिपि :– क्षेत्रीय अधिकारी, उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड, रुड़की, जिला–हरिद्वार को सूचनार्थ एवं उपरोक्त के अनुपालन हेतु प्रेषित।

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Roorkee

पर्यावरण अभियन्ता


GPS Map Camera
Laksar, Uttarakhand, India
Shekhpiri, P2XH+F6X, Laksar, Shekhpuri, Uttarakhand 247663, India
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Long 78.028578°
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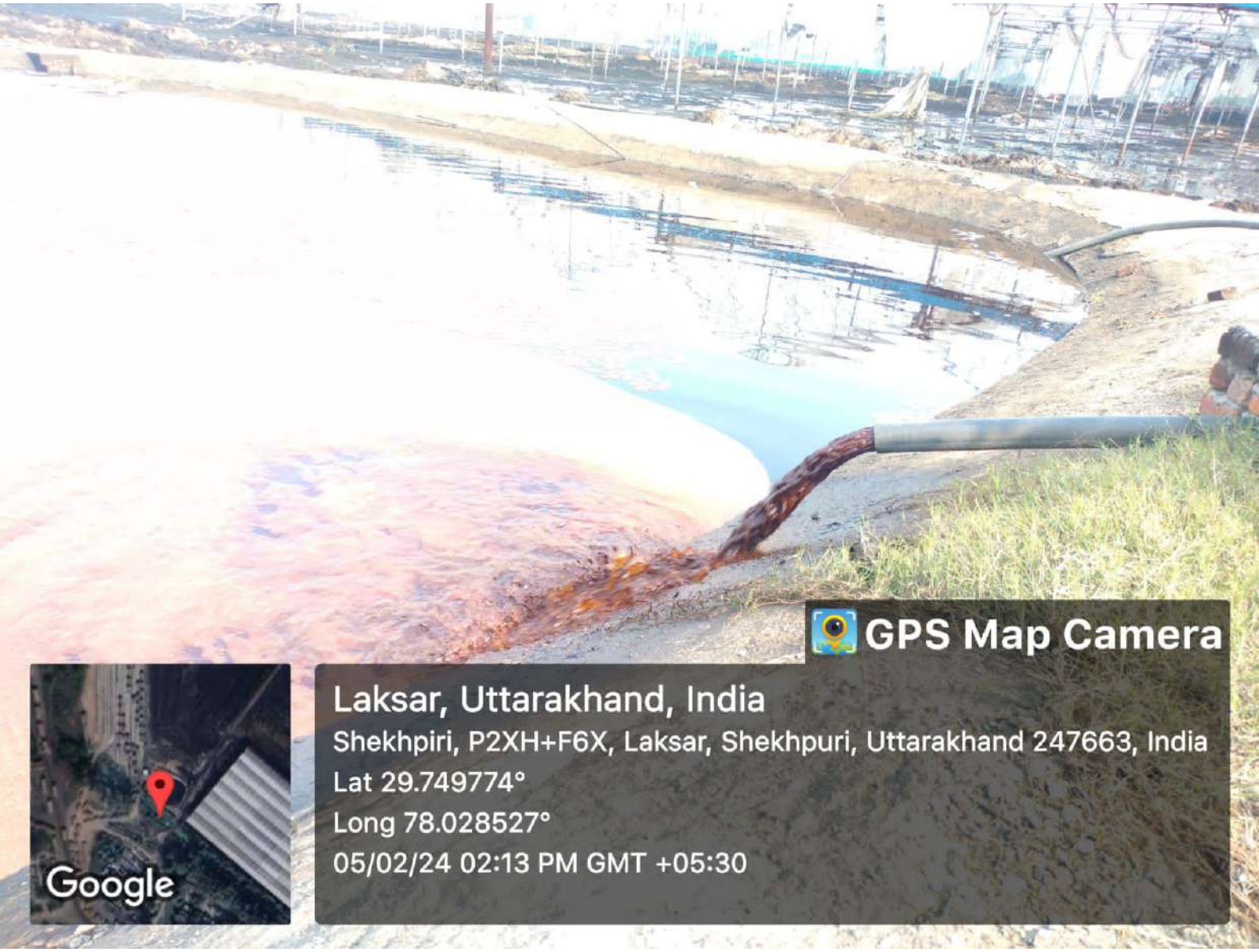
Google

384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Google

385


GPS Map Camera
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Google

386


GPS Map Camera
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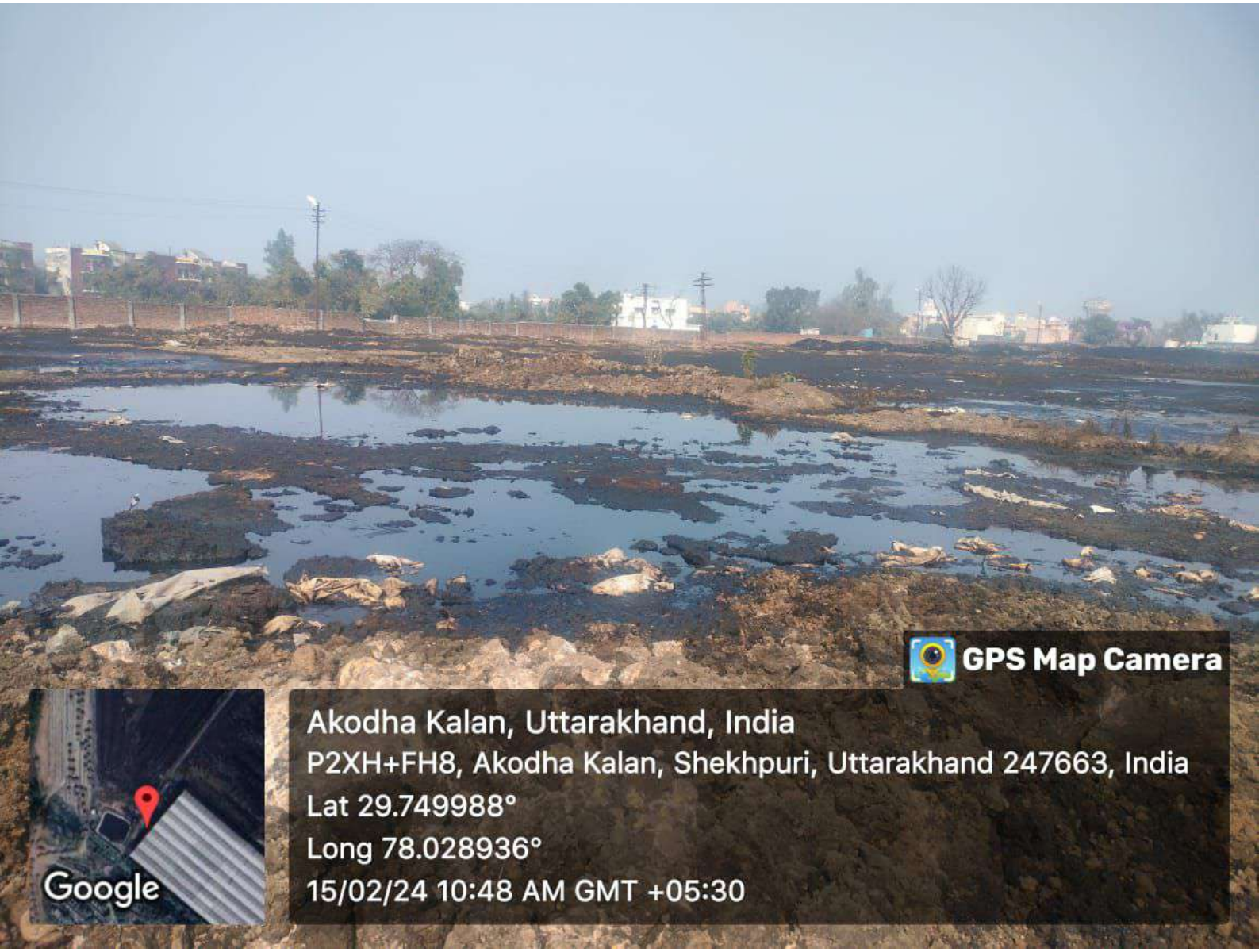
Lat 29.749925°
Long 78.02873°
15/02/24 10:46 AM GMT +05:30
Google

387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Google

388


GPS Map Camera
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P2XH+FH8, Akodha Kalan, Shekhpuri, Uttarakhand 247663, India
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Long 78.028806°
15/02/24 10:53 AM GMT +05:30
Google

389


GPS Map Camera
Akodha Kalan, Uttarakhand, India
P2XH+FH8, Akodha Kalan, Shekhpuri, Uttarakhand 247663, India
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Long 78.02881°
15/02/24 10:53 AM GMT +05:30
Google

390


GPS Map Camera
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P2XH+FH8, Akodha Kalan, Shekhpuri, Uttarakhand 247663, India
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Long 78.028711°
24/02/24 05:01 PM GMT +05:30
Google

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GPS Map Camera
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P2XH+FH8, Akodha Kalan, Shekhpuri, Uttarakhand 247663, India
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Google

392


GPS Map Camera
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P2XH+FH8, Akodha Kalan, Shekhpuri, Uttarakhand 247663, India
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Long 78.028681°
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Google

393


GPS Map Camera
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Google

394


GPS Map Camera
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Q22G+JVR, Laksar Rd, Shekhpuri, Laksar, Uttarakhand 247663, India
Lat 29.750922°
Long 78.027045°
24/02/24 05:21 PM GMT +05:30
Google

395


GPS Map Camera
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P2XH+FH8, Akodha Kalan, Shekhpuri, Uttarakhand 247663, India
Lat 29.74858°
Long 78.029925°
18/02/24 11:29 AM GMT +05:30
Google

Annexure A13

Halnak-01

(1)

INSPECTION REPORT

OF

M/s RAI BAHADUR NARAIN SINGH SUGAR MILLS LTD.
(DISTILLERY DIVISION)
LAKSAR, HARIDWAR - 247663
UTTARAKHAND

Prepared By

NATIONAL SUGAR INSTITUTE

Government of India

An ISO 9001:2015 Institute

Ministry of Consumer Affairs, Food & Public Distribution

Department of Food & Public Distribution

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सत्यापित प्रति

लो.सू.अधि., मुख्या0
यू.ई.पी.पी.सी.बी. देहरादून

INTRODUCTION

Uttarakhand Pollution Control Board (UKPCB), Dehradun vide letter no. UKPCB/HO/Gen-R-95-Vol-II/939 dt.17.08.2022 approached National Sugar Institute, Kanpur for inspection of Effluent Treatment Plant of M/s Rai Bahadur Narain Singh Sugar Mills Ltd. (Distillery Division), Laksar, Haridwar being attached to 60 KLPD molasses-based distillery located in close proximity with 10,000 TCD Sugar plant and report on its adequacy via bio-composting/ spray dryer route keeping in view CPCB/ SPCB guidelines related to molasses-based distilleries. In addition to adequacy of ETP, UKPCB also desired to analyze the ground water samples being taken from periphery of 1 km, 3 km and 5 km of the factory. The factory proposes to operate the unit for 270 days following bio-composting/ spray dryer route. It is pertinent to mention that another new 60 KLPD molasses-based distillery unit is being installed with existing 60 KLPD molasses-based distillery plant. Since the equipments of new unit were found still under installation/ commissioning, the comments are not being offered for the same in the report.

2. COMPOSITION OF THE TEAM

1. Shri Anoop Kumar Kanaujia, Asst. Professor (Sugar Engineering)
2. Dr. (Mrs.) R. Ananthalakshmi, Asst. Professor (Bio-Chemistry)
3. Shri M P Singh, Sr. Technical Assistant (Sugar Technology)
4. Dr. Ajeet Singh, UKPCB

3. DATE /PERIOD OF VISIT

The visit was undertaken by the above officers on 03rd-05th November, 2022 to assess adequacy for assessment of the efficacy of Zero Liquid Discharge System of the ETP of existing 60 KLPD molasses-based distillery and analysis of ground water samples. The report is based on the data provided by the factory and physical verification made at site. During the period of visit the factory was not found in operation and as such the inferences has been drawn on the basis of data made available by the factory.

4. FACTORY OFFICIAL PRESENT DURING THE VISIT

Shri Ajay Khandelwal, General Manager, Shri S P Singh, Addl. General Manager and Shri Manish Rathi, Sr. Manager (Distillery) of the unit along with their other technical staff were present during the visit for detailed discussion and physical verification of the site.

5. OBSERVATION AND DISCUSSIONS

The Molasses based distillery unit namely M/s Rai Bahadur Narain Singh Sugar Mills Ltd. (Distillery Division) is situated in Laksar, Haridwar, Uttarakhand adjacent to the Sugar unit of 10,000 TCD capacity which was established in the year 2014 and its present Licensed/ Installed capacity is 60 KLPD. However, the factory has also proposed to install another new ethanol unit of capacity 60 KLPD.

सत्यापित प्रति

लो.सू.अधि., मुख्या० यू.ई.पी.पी.सी.बी. देहरादून

(3)

The consent issued by UKPCB, Environment Consent, and Excise/PD-2 are attached as **Annexure 1, 2, & 3** respectively. The factory has installed Bio-digester, Multiple Effect Evaporator system to concentrate the spent wash generated during the distillation process and being dried into spray dryer/ used for bio-composting to achieve Zero Liquid Discharge (ZLD).

Performance of the distillery unit as reported by the unit for the last three Alcohol years:

Sl. No	Particulars	2018-19 (December to November)	2019-20 (December to November)	2020-21 (December to November)
1	Installed Capacity in KLPD	60	60	60
2	Production in KL/ Annum	10811.05	9493.68	9274.82 (B-Heavy) 813.42 (C-Heavy)
3	**Products Manufactured KL/ Annum**			
	Rectified Spirit	99.31	29.05	1.00
	Extra Neutral Alcohol	63.77	2237.40	163.50
	Absolute Alcohol/Fuel Ethanol	10647.96	7227.22	9923.75
4	Type of Raw Material consumed	C-Heavy	C-Heavy	C-Heavy/ B-Heavy
5	Raw Material consumed MT/Annum	44901.3	42444.30	3852.5 (C-Heavy) 30700.5 (B-Heavy)
6	No. of operating days	198	203	212
7	Alcohol % in wash	10	10.5	12.2
8	Alcohol yield lit/qtl	24.07	22.36	21.11 (C-Heavy) 30.21 (B-Heavy)
9	Spent wash generation, l/l	8	7.90	5.99

सत्यापित प्रति

लो.सू.अधि., मुख्या0
यू.ई.पी.पी.सी.बी. देहरादून

The last three months data duly certified with Excise Department regarding performance of distillery is as under:

Month	Month wise Alcohol Production (in B.L.)	Working Days	Avg. Alcohol production per day in KL	Molasses Distilled (in Qtls.)	Recovery In BL/Qtls.
Jun-22	1598731.50	28.00	57.10	B-Heavy Molasses: 53861	29.68
July-22	1797734.10	30.00	59.92	B-Heavy Molasses: 59682	30.12
Aug-22	1236416.00	20.38	60.67	B-Heavy Molasses: 41017	30.14
Total	**4632881.60**	**78.38**	**59.11**	**154560.0**	**29.97**

Production data duly certified with Excise Department of last three months attached as **Annexure 4 (Copy of Form PD-9/ PD-29).**

6. PROCESS ADOPTED FOR ALCOHOLPRODUCTION

The factory uses fed batch fermentation, MPR distillation system for production of Rectified Spirit (RS)/ ENA and Ethanol. The factory has installed Bio-digester, Multiple Effect Evaporator system to concentrate the spent wash generated during the distillation process and being dried into spray dryer/ used for bio-composting to achieve Zero Liquid Discharge (ZLD). C-Heavy Molasses/ B-Heavy Molasses is being used as raw material for producing RS, ENA and Ethanol which is obtained from own sugar factory or procured from other sugar factories.

The main processes for the production of RS, ENA and Ethanol at the unit are:

a) Fermentation (Fed batch)
b) Distillation (MPR)
c) Molecular Sieve Dehydration (MSDH)
d) Bio-Digester
e) Multiple Effect Evaporator (MEE)
f) Bio-composting / Spray Dryer
g) Condensate Polishing Unit (CPU)

The various sections involved in the process for manufacture of RS, ENA and Ethanol are:

i. Molasses Storage and Handling Section
ii. Fermentation Section
iii. Distillation Section
iv. Molecular Sieve Dehydration
v. Bio-Methanation/ Bio-Digester Section

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vi. Multiple Effect Evaporator Section
vii. Bio-composting Section / Spray Dryer
viii. Process Water Treatment Section

(i) Molasses Storage, Handling and Distribution:

Molasses is stored in two steel tanks at the distillery having storage capacity of 60000 Qtls. and 80000 Qtls. Stored molasses in the molasses storage tank is pumped to the molasses receiving tank in the fermentation section.

(ii) Molasses Fermentation:

The fermentation consists of following steps;

a. Molasses weighing
b. Yeast Propagation
c. Pre fermentation
d. Fermentation

a. **Molasses Weighing** - Molasses is transferred into fermentation house after weighment. This molasses is diluted in diluter as per feed requirement like feed to Pre-fermentation/ Fermentation stages.

b. **Yeast Propagation-** Culture yeast is grown in own laboratory. Yeast propagation section comprises of molasses diluter and hygienically engineered yeast vessels equipped with cooling and air sparging facility.

c. **Pre-Fermentation-** In Pre-Fermenter vessel, molasses, process water, nutrients and additives are added for activation/growth of cell mass. Filtered air is given as required for cell growth. Activated cell mass is transferred to Fermenter to maintain desired cell mass concentration in Fermenter. Laboratory propagated cell mass is scaled up in series of yeast vessels. Cell mass from Yeast vessel is transferred to yeast activation vessel to build up cell mass required for Fermentation by cell mass transfer pump.

d. **Fermentation** -The fermentation process is engineered to operate in fed-batch mode depending upon varying qualities of molasses. The purpose of fermentation is to convert the fermentable sugars into alcohol. During fermentation, sugars are broken down into alcohol and carbon–di–oxide. Significant heat release takes place during fermentation. The fermenter temperature is maintained by cooling the fermented wash by forced circulation in plate heat exchangers. The cooling water used in plate type heat exchanged is cooled by circulating through cooling tower. Around 63 m^3 spent lees from MPR distillation produced in the process is re-cycled and used for dilution during fermentation process. There is also a provision for spent wash recycle to fermentation depending on solid concentration in fermented wash and molasses composition.

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Type: Molasses based Fed Batch Type Fermentation
Nos. of Fermenter: Total 04 Nos. of Fermenters, Total Capacity – 16 Lac liters, 01 no. Wash Holding/ Intermediate tank for uninterrupted wash feed to Distillation Plant.
Yeast Vessels: 01 series of 04 vessels in each and of Capacity 100, 520, 2600 and 13000 Liters.
Unit has also installed Fermenters sludge settling system consists of 02 Nos. settling tanks having a capacity of 20000 liters each.

(iii) Distillation

The next stage in the production of alcohol is to separate alcohol from fermented wash and to concentrate it for final Product. The fermented wash is distilled and rectified. The following equipments are used.

1. Degasifying Column
2. Analyzer Column
3. Pre-Rectification Column
4. R.S. Recovery Column
5. Ethanol Recovery Column
6. Molecular Sieve Bed (03 nos.)
7. Purifier Column
8. Rectifier cum Exhaust Column
9. ENA Simmering Column

Pre-heated Fermented wash is fed to Degasifying Column. Fermented wash is stripped off alcohol by a small quantity of Steam is feed in degasifying column. Vapors of Degasifying Column are fed to Aldehyde column and appropriate technical alcohol cut is taken out from this Column. The Degasifying column bottom Liquid is pumped to analyzer Column for stripping of alcohol from fermented wash. Analyzer vapors from Top are fed to pre-rectifier column this column further concentrates alcohol to @ 95 % v/v and also separates low boiling impurities from column top. The column operates under vacuum. Rectified spirit draw of 95% v/v is taken out from the upper trays of pre rectifier column and fed to RS simmering column which separate the light ends present in RS under high reflux and taken to storage section after passing it through a cooler.

Molecular Sieve Dehydration (MSDH):

Rectified Spirit (RS) fed into the top of the re-boiler and steam applied in bottom of re-boiler. The alcohol and water vapors pass through the super heater to maintain the out let temperature between 135-138°C. After that alcohol and water vapors goes to sieve bed where water vapors are absorbed by molecular sieve and alcohol vapors pass out. These vapors condensed in product condenser and cooled through cooler which is called absolute alcohol having alcohol concentration between 99.8 -99.9% v/v.

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Heat integration and Energy input Points

- Analyzer column driven by vapour of analyzer re-boiler.
- Vapors from analyzer column sent to pre-rectifier column and trapped alcohol fed to purifier column with small qty of DM water. recovery column is again driven by small qty of steam for separation of fusel oil. MSDH section evaporator column is driven by steam during Ethanol production.

Supplier: M/s Naran Lala Pvt. Ltd., Gujrat
Nos. of Column: 08 Nos. for Wash to Ethanol and 07 Nos. Wash to ENA.
Type: Wash to RS and Wash to ENA are multi pressure fractional distillation.

Cooling Towers:
One No. for Fermentation- 460 M^3/hr Recirculation Rate
One No. for Distillation 750 M^3/hr Recirculation Rate
One No. for MSDH- 350 M^3/hr Recirculation Rate
One No. for MEE Plant - 750 M^3/hr Recirculation Rate

The plant process flow diagram is attached as **Annexure 5.**

7. EQUIPMENT INSTALLED FOR ACHIEVING ZERO LIQUID DISCHARGE (ZLD)

The factory has envisaged two stages of treatment for the spent wash to obtain Zero Liquid Discharge. The raw spent wash from the distillery is being taken in Bio-digester and then concentrated into Multiple Effect Evaporator (MEE) System. The concentrated spent wash from MEE is then being dried into spray dryer/ used in bio-composting.

As per the data provided, the plant generates spent wash at the rate of about 6.0 lit/lit of Alcohol produced with a Brix of around 11-12. Average spent wash generated is about 360 KL/day on full plant capacity (The volume is measured by Mass Flow meter) which is fed into MEE. Copy of log book in respect to spent wash generated is attached as **Annexure 6.**

The characteristics of raw spent wash (on B-Hy molasses) produced are given below;

pH	4.5– 4.7
Specific gravity	1.02 - 1.03
Brix Content	11-12
Sludge v/v	08-10%
VFA	3000– 4000 mg/l
COD	120000 - 125000 mg/l

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Spent Wash Generation Data – (June 2022 – August 2022)

Total spent wash generation June-August 2022 from Log book (KL)	27116.06
Total Alcohol production June-August 2022 from Excise data (KL)	4632.882
Spent wash generation KL/ KL of Alcohol	5.9

i. Bio-Methanation Plant/ Bio-Digester

Two nos. CSTR type Bio-digesters were installed in year 2014. The capacity of bio-digesters is 10000 M^3 each and hydraulic retention time of bio-digesters is about 21 days. During idle days digesters are maintained by keeping some spent wash in storage pits and slow feeding into digesters is being carried out. Temperature of digesters is being maintained through PHE, by exchanging heat of spent wash with bio-digester re-circulation material. Generated sludge is being consumed in bio-composting. The initial and final COD/ BOD and Bio-gas production data is attached as **Annexure 7.**

ii. Multiple Effect Evaporator (MEE)

The factory has six-effect Multiple Effect Evaporator which comprises of 4 no. Falling Film Evaporator bodies and 2 nos. Forced Circulation Evaporator bodies wherein the solid content of BMSW is increased up to 35-38% solids. The system is having one degasser and does not have any stand-by body. MEE is designed for feed capacity of 750 KLPD.

The first and second body of the evaporator is driven by steam at suitable temperature and pressure. The third effect is driven through the vapour from the first and second effect and consequently the fourth effect is driven through the vapour from the third effect and so on up to sixth effect. The configuration of MEE set is attached as **Annexure 8.**

Designed Technical Specifications of 6 Stage- Multi Effect Evaporator (MEE)

S.No.	Particulars	Type	HTA (M^2)	OD of tubes (mm)	Length of tubes (mm)	Thickness of tubes (mm)	Thickness of shell (mm)
1	Falling Film Evaporator- 1	Falling Film	245	50.8	12000	1.2	4
2	Falling Film Evaporator- 2	Falling Film	245	50.8	12000	1.2	5
3	Falling Film Evaporator- 3	Falling Film	245	50.8	12000	1.2	5

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4	Falling Film Evaporator- 4	Falling Film	245	50.8	12000	1.2	5
5	Forced Circulation Evaporator- 1	Forced Circulation	264	38.1	9000	1.6	5
6	Forced Circulation Evaporator- 2	Forced Circulation	264	38.1	9000	1.6	5
7	Surface Condenser		220	50.8	12000	1.2	5
8	Preheater-1		35	50.8	12000	1.2	5
9	Preheater-2		35	50.8	12000	1.2	5

The MEE is designed for feed rate @ 750 m^3/day to concentrate the spent wash at about 180 m^3/day with solid content 35-38%. Copy of log book in respect to MEE performance is attached as **Annexure 9.**

iii. Spray Dryer

The Multiple Effect Evaporator system is followed by spray dryer system/ bio-composting for attaining Zero Liquid Discharge (ZLD).

1	Year of installation/ establishment & commissioning of Spray Dryer	2019-20
2	Type of Spray Dryer	Rotating Disk Spray Dryer
3	Capacity of Spray Dryer	45 TPD
4	Design details	
	Feed rate of Concentrated Spent Wash	180 TPD
	Product manufacturing capacity	45 TPD
5	Spray Dryer Supplier details	M/s Raj Process Equipments & Systems Pvt. Ltd., Pune
6	Spray Dryer Performance details	
	Actual Slop used	40 TPD with bio-composting 105 TPD without bio-composting
	Quantity of product generated	15 TPD with bio-composting 40 TPD without bio-composting
	Characteristics of generated product	Copy of analysis report attached as **Annexure 10.**

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	Method of disposal	Copy of sale invoices attached as **Annexure 11.**
	No. of working days per annum	270 days
7	Other Details	
	Shut down days-cleaning period required	-
	Hot air temperature Deg. Cent.	240°C
	Bio-gas required	700 m^3/hr
8	Emission control system or Air Pollution Control Device (APCD) installed (Yes/No)	Yes
	Name of installed Emission control system/ APCD	Wet Scrubber
	Stack Height	40 Mtrs.
9	On-line emission (stack) monitoring system installed (Yes/No)	Yes
	Details of on-line emission (stack) monitoring system for boiler	Provided by M/s N.T. Bloomfield Enterprises, New Delhi
	On-line emission (stack) monitoring system connected to CPCB/SPCB server at time of inspection? (Yes/No)	Plant was found non-operational during period of visit.

Copy of log book records of spray dryer performance is attached as **Annexure 12.**

iv. Bio-Composting

The factory is also engaged in Bio-composting activities with part of concentrated bio-methanated spent wash being diverted to bio-compost yard. For smooth and trouble-free operation of Bio-composting process factory build suitable infra-structure in Bio-composting yard. About 14 Acres land is used in Bio-composting including 3.5 Acre of covered shed.

The aerobic composting process involves arranging the press mud (filler material) in 200 to 220 meter long windrows of triangular section of about 1.5 Meter height by 3.0 Meter width on impervious ground usually with the help of front end loaders. The windrows are sprayed with a measured quantity of spent wash, in the ratio of 1:1.6 (Press mud: Concentrated BMSW). The ratio will vary depending on the moisture content of the filter materials. The spraying of spent wash is done when the moisture content of the press mud drops to about 50%.

The moisture content is not allowed to exceed 65% as at that moisture anaerobic condition start prevailing which is detrimental to the composting process. The windrows

(11)

are inoculated with the seed material after the first spray. About 1 kg of Bio Culture is required per ton of press mud. From ambient temperature at start up the temperature rises to 65 Degree C by the second week and continues up to the seventh week. The total duration for completion of the reactions is about 08 weeks by which time the temperature returns to ambient. A further two weeks is allowed for curing. Carbon to nitrogen ratio is the deciding factor to determine the completion of the Bio-composting process. It should be 20 or below. Specialized mixing machines called Aero tillers, traveling along the length of the windrows are used to mix and aerate the decomposing mass, about once in three days. This results in increased spent wash absorption, oxygen supply for proper growth of micro-organisms and dissipation of heat, which is liberated due to metabolic activity of micro-organisms. The moisture content during composting is maintained at 50-60% by periodic spraying of the spent.

1	Bio-composting yard	Bio-compost yard (PCC along with brick paving)
2	Active Area for Bio-composting	14.22 Acre (Total area including for press mud/ finished product storage)
3	Area for press mud storage	1.4 Acre
4	Area for ready Bio-compost storage	Small covered area available- 3.5 Acre
5	Finished compost facility	Arrangement for bio-compost loose is being given to farmers
6	Maturity time in days for one cycle and total cycle in year	60 days and 4 cycle per annum
7	Spent wash storage capacity	5222 M^3
8	Bio-compost filler material availability (Press mud/ Yeast sludge/ Boiler ash)	Press mud from own sugar factory
9	Concentrated (MEE Outlet) available for Bio-composting	At operating capacity approx. 50 M^3/day
10	Utilization of S.W/ Conc. SW in Bio-composting	Average no. of days of spraying SW in cycle: 50-55 days.
11	Ratio of press mud to concentrated BMSW	1:1.6
12	Details of windrows	Length (m) 80 Width (m) 3.0 Height (m) 1.5 Numbers 12
	Space between the two windrows	1.5 meter approx.
13	Equipment Aero-tillers JCB Tractor Loaders	 2 1 4 2

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14	Number & type of turning and mixing machine	2
15	Details of registration required from agriculture department, as per new notification of Compost	Copy of registration attached as **Annexure 13**.
16	Arrangement for rainy season and details regarding closure of operations for 03 months during monsoon	Plant remains closed during rainy season.
17	Details of PTZ cameras provided and connectivity.	**Fix/ PTZ 360 Camera** Lagoon area Bio-compost area
18	Piezometer around the compost yard	01 nos. piezometer provided
19	Quality of Bio-compost prepared	Copy of analysis report attached as **Annexure 14.**
20	Bio-compost disposal/ sale	Copy of records of bio-compost distribution to local growers attached as **Annexure 15.**

Copy of log book records in respect to preparation of bio-compost is attached as **Annexure 16.**

v. Condensate Polishing Unit (CPU)

The conventional (Anaerobic/ Aeration/ MGF/ ACF) CPU was installed in year 2014 supplied by M/s M.M. Enviro Projects Pvt. Ltd. P& I diagram of CPU System is attached as **Annexure 17**.

Designed Characteristics of CPU:

Capacity	1050 KLD
Sources of effluent coming into CPU	MEE condensate Spent lees Cooling Tower Blow-down
Recovery %	90%
Quantity utilized per day %	100% is proposed to be used in molasses dilution/ cooling tower make-up water/ floor washings *etc.*

Copy of log book records of CPU performance is attached as **Annexure 18.**

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8. ETP PLANT & MACHINERY DETAILS

S. No.	Description	Details
1	**Multi Effect Evaporator**	The six-effect MEE of capacity 750 M^3/ day is installed for concentrating raw spent wash. It consists of Falling Film type Evaporators (4W+0S) having 245 m^2 HSA each and Forced Circulation type Evaporators (2W+0S) having 264 m^2 HSA each.
2	**Bio-digester**	Two nos. CSTR type Bio-digesters of capacity 10000 M^3 each are provided for bio-methanation.
3	**Spray Dryer**	Rotating Disk type Spray Dryer of capacity 45 TPD is provided for drying concentrated bio-methanated spent wash (about 50% of total generated quantity).
4	**Bio-Composting**	Total 14.22 Acre area including for press mud/ finished product storage is available for bio-composting facility for about 50% of total generated concentrated bio-methanated spent wash quantity.
5	**Lagoon**	Three nos. of lagoon of total capacity 5222 m^3 (1925 m^3+1925 m^3+1372 m^3) are available for storage of concentrated spent wash.
6	**Condensate Polishing Unit (CPU)**	Conventional (Anaerobic/ Aeration/ MGF/ ACF) CPU of capacity 1050 KLD is provided for treatment of process condensate and other low strength effluents.

9. STEAM AND POWER GENERATION

The steam and power requirement for distillery are being met out through sugar mill boiler of capacity 30 TPH (32 kg/cm^2 and 400°C) integrated with back pressure type turbine of capacity 3 MW.

10. FRESH WATER MANAGEMENT SYSTEM

The raw water requirement of approximately 250-300 m^3/day for the plant is being met by one borewell located in sugar premises. The water balance of distillery as reported by the factory is attached as **Annexure 19**. The distillery has got the NOC for ground water abstraction from CGWA, which is enclosed as **Annexure 20**.

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11. ANALYTICAL RESULS OF GROUND WATER SAMPLES

The ground water samples were taken from the periphery of 1 km, 3 km and 5 km of the factory and also from handpump near bio-compost yard & up-stream & down-stream of the drain passing though the factory premises. The major parameters observed are as follows;

S.No	Particulars	Sample-1 Tehsil Compound laksar (<1 km)	Sample-2 Vill.- Khandju Ktbpura (<3 km)	Sample-3 Vill.- Kudinet-wala (<5 km)	Sample-4 Up-stream Drain	Sample-5 Down-stream Drain	Sample-6 Bio-compost yard
1	pH mg/L	6.97	7.26	7.49	7.33	7.51	7.09
2	TDS mg/L	624	369	290	514	540	830
3	COD mg/L	BDL	BDL	BDL	150	110	BDL
4	Fe mg/L	5.08	3.80	2.06	1.52	1.63	2.83
5	Cl mg/L	44.0	16.3	10.4	29.4	25.0	45.5
6	F mg/L	0.83	0.71	0.69	0.85	0.96	0.70
7	Pb mg/L	0.016	0.019	0.049	0.024	0.028	0.057
8	Cr mg/L	BDL	BDL	BDL	BDL	BDL	BDL

The copy of analysis reports is attached as **Annexure 21**.

12. OBSERVATIONS ON PHYSICAL PARAMETERS

S. No	Particulars	Actual in the unit
1.	Spent wash Generation l/l alcohol	About 6.0 litre/ litre of alcohol (three months average)
2.	Concentration of spent wash up to 35-38 % solids and spray dryer/ bio-composting	50% quantity of concentrated bio-methanated spent wash is dried through spray dryer and rest 50% is utilized for bio-composting.
3.	On line flow meters with data recording facility which should be transmitted online to CPCB and SPCB shall be installed at the raw spent wash/whole still age generation line, MEE feed and MEE concentrate	Online flow meters with data recording facility have been installed as per details at *para 13*.
4.	Cameras (IP) with PAN, Tilt zoom *etc.* to be installed at relevant locations of final spent wash lagoon storage/ concentrated spent wash storage tank	One no. camera is provided at Concentrate storage lagoon and two no. camaras are provided at bio-compost yard as per details at *para 13* as per PCB guidelines and are connected with CPCB and UKPCB servers.

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5.	Boiler should have online continuous stack emission monitoring system	Online SPM analyzer has been installed.
6.	Mass flow meters at the inlet and outlet of the MEE	Mass flow meter has been installed at the outlet of Distillation section. Mass flow meters have been provided at the feed and outlet of the MEE.
7.	ZLD system	The distillery has adopted spray drying and bio-composting route to achieve ZLD through Bio-methanation followed by MEE + Spray Dryer/ Bio-composting & Conventional CPU System for recycling of condensate and other low strength effluents.

13. ONLINE MONITORING SYSTEM

Details of Online PTZ Cameras & Flow Meters:

Location / Place Installed	Parameter monitored	Device Make & Serial No./ Device ID	Device Model	Device Vendor	System Certified	Certified Agency	Range
Bio-compost Yard	PTZ Camera	CP Plus 20080120 52006566	CP-UNC-TA21PL-3-0-360	Aaxis Nano Technologies Pvt. Ltd.	NA	NA	20 X
Spent Wash Generation	Mass flow meter	ABB	FCB430	Aaxis Nano Technologies Pvt. Ltd.	Yes	ABB	0-32000 Kg/Hr
MEE Feed	Mass flow meter	ABB 244367863/ X002/00708	FCB430	Aaxis Nano Technologies Pvt. Ltd.	Yes	ABB.	0-42850 kg/hr
MEE Concentrate	Mass flow meter	ABB 244327875/ X002100708	FCB430	Aaxis Nano Technologies Pvt. Ltd.	Yes	ABB	0-21000 kg/hr

The photographs of MEE plant, CPU, Lagoon, Spray-dryer, Bio-composting, Mass flow meters at the feed and outlet of MEE, PTZ cameras at Bio-composting/ Lagoon are being attached as **Annexure 22**.

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14. RECOMMENDATIONS & CONCLUSIONS

(i) M/s Rai Bahadur Narain Singh Sugar Mills Ltd. (Distillery Division), Laksar, Haridwar, Uttarakhand is having a molasses-based distillery of licensed capacity of 60 KLPD. The factory has adopted combined spray drying and bio-composting route to achieve ZLD through Bio-methanation followed by MEE + Spray Dryer/ Bio-composting & Conventional CPU System for recycling of condensate and other low strength effluents. However, during the period of visit, the factory was found non-operational due to unavailability of raw material/ feedstock.

(ii) It is pertinent to mention that another new 60 KLPD molasses-based distillery unit is being installed with existing 60 KLPD molasses-based distillery plant. Since the equipments of new unit were found still under installation/ commissioning, the comments are not being offered for the same in the report.

(iii) The factory has two nos. CSTR type Bio-digesters for bio-methanation. The bio-methanated spent wash is being sent to six effect Multiple Effect Evaporator (MEE) system to concentrate up to 35-38 brix and then about 50% of concentrated bio-methanated spent wash is being used in spray drying & balance is being used for bio-composting so as to comply with CPCB norms to achieve Zero Liquid Discharge (ZLD) through spray drying and bio-composting route as well.

(iv) As for as concern with CPCB norms in respect to achieve Zero Liquid Discharge (ZLD) for molasses-based distillery, the three routes *viz.* incineration technology, spray drying of spent wash and bio-composting have been suggested by CPCB. Keeping in view the downsides in bio-composting route, incineration technology is commonly preferred by the molasses-based distilleries to achieve Zero Liquid Discharge (ZLD). Another technology *i.e.* spray drying of spent wash, installation of granulation unit may also be considered to achieve ZLD. However, the unit shall have to ensure to enter into formal agreement with other vendors for safe disposal & utilization of ash.

(v) Keeping in view the dense population around the factory and also the drawbacks of bio-composting method, in future, the factory shall require completely switch to other prescribed methods *viz.* incineration technology/ spray drying of spent wash to achieve Zero Liquid Discharge (ZLD). Accordingly, the factory may modify their Multiple Effect Evaporator (MEE) system to achieve the desired concentration of spent wash being incinerated in the incineration boiler or drying through spray dryer system.

(vi) The installed capacity of conventional Condensate Polishing Unit (CPU) system shall be sufficient to handle the MEE condensate & other low strength effluents (Spent lees and Cooling tower blow down *etc.*) at production capacity of 60 KLPD of RS/ENA/Ethanol. However, the factory may also provide RO & UV system for better utilization of treated water of CPU. The totalizer facility may also be provided in the magnetic flow meter(s) installed at inlet/ outlet of CPU.

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(vii) Air Pollution Control (APC) system *i.e.* Wet Scrubber and OCEMS provided for emission control and monitoring system shall be sufficient to cope up with production capacity of 60 KLPD of RS/ENA/Ethanol.

(viii) The factory shall require to provide the PTZ camera to cover the lagoon area in place of provided fixed type camera. The camera(s) may also be provided to cover the area of spray drying of spent wash.

(ix) The factory has proposed to utilize three nos. of lagoon of total capacity 5222 m^3 for storage of concentrated spent wash. However, the capacity of lagoon may be restricted as per the norms in case of opting incineration/ spray drying of spent wash.

(x) The factory has provided necessary Mass flow meters with data recording facility for MEE feed and MEE concentrate and have been connected with the CPCB/ SPCB servers for transmitting data. The online stack monitoring system has also been commissioned and connected with the CPCB/ SPCB servers for transmitting data.

(xi) The water samples collected during the period of visit as per details at *para 11*, the major parameters *viz.* pH, TDS, COD and other heavy metals *etc.* are observed as per analysis report enclosed.

15. ACKNOWLEDGEMENTS

The undersigned are thankful to all the technical and other staff of the factory for extending necessary assistance during the period of investigation.

(R. Ananthalakshmi) 10/1/23
ist. Professor (Bio-Chemistry)

10/1/23
(Anoop Kumar Kanaujia)
Asst. Professor (Sugar Engineering)

NATIONAL SUGAR INSTITUTE
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Ministry of Consumer Affairs, Food & Public Distribution
Department of Food & Public Distribution
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Annexure A14

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उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड
सिंचाई परिकल्प भवन परिसर, रूड़की-247667 जिला-हरिद्वार

पत्रांक-यूकेपीसीबी/आर0ओ0आर0/सा0-64/2023/ [illegible] दिनांक 11.07.2023

पंजीकृत डाक द्वारा

श्री अंकित सिंह
क्षेत्रीय अधिकारी
उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड
6 बी, नई मण्डी, मुजफ्फरनगर
उत्तर प्रदेश।

2659
15/07/2023

विषयः- जनपद मुजफ्फरनगर के शुकताल घाट के समीप गंगा नदी में उत्पन्न जल प्रदूषण की समस्या उत्तराखण्ड के लक्सर क्षेत्र से प्रवाहित बाण गंगा नदी में प्रदूषित जल आने के सम्बन्ध में।

महोदय,

कृपया उपरोक्त विषयक अपने पत्रः- 269/जी-16/शुकताल नदी/मु0नगर/2023 दिनांक 04.07.2023 का सन्दर्भ ग्रहण करना चाहें। जिसमें अवगत कराया गया है कि दिनांक 30.06.2023 शुकताल घाट के आस-पास प्रदूषित रसीला उत्प्रवाह पाया गया जिसमें मछलियां मृत पायी गयी, इस तरह की घटनाऐं पूर्व में भी घटित हुई है, जिस कारण स्थानीय साधु संतों में गहरा रोष व्यापत है। अवगत होना चाहें कि जनपद हरिद्वार से निकलने वाली बाण गंगा (a सोलानी नदी का संगम शुकताल से पूर्व लगभग तीन से चार किलो मीटर पूर्व होता है। सोलानी नदी जनपद हरिद्वार के रूड़की शहर से निकल कर बहती है। जिसमें किसी भी प्रकार का औद्योगिक उत्प्रवाह निस्तारित नही किया जाता है। सोलानी नदी के डाउन स्ट्रीम (स्थान कुआँखेड़ा के अप स्ट्रीम) पर क्षेत्रीय कार्यालय द्वारा प्रत्येक माह नमूना अंकित किया जाता है। जिसमें D.O की मात्रा औसतन 7 से 8 मिलीग्राम प्रतिलिटर के बीच पायी जाती है। जबकि हरिद्वार जनपद से निकलने वाली गंगा नदी व बाण गंगा का संगम उत्तरप्रदेश के शुकताल से लगभग 8 कि0मी0 दूरी (UP) में होता है, तथा लक्सर शहर से निकलने वाली लक्सर ड्रेन ग्राम इदरीशपुर के पास बाण गंगा नदी में मिलती है। लक्सर ड्रेन में उक्त क्षेत्र में स्थापित मै0 आर0बी0एन0एस0 शुगर मिल का शुद्धिकृत उत्प्रवाह निस्तारित किया जाता है। जबकि मै0 आर0बी0एन0एस0 डिस्टलरी शून्य उत्प्रवाह का अनुपालन कर रही है। बाण गंगा नदी के शेरपुर बेला में (After Confluence of River Banganga with Luksar Drain) D.O की मात्रा औसतन 5 से मिलीग्राम प्रतिलिटर के बीच पायी जाती है। आपके प्राप्त पत्र के क्रम में दिनांक 04.07.2023 को शेरपर बेला में बाण गंगा नदी से नमूना एकत्रण किया गया। जिसमें कि D.O की मात्रा 5.1 मिलीग्राम प्रतिलिटर पायी गयी। निरीक्षण के दौरान किसी भी प्रकार का उत्प्रवाह बाण गंगा नदी में निस्तारित होता नही पाया गया।

अवगत होना चाहें कि पूर्व में भी इस तरह के बाण गंगा नदी के प्रदूषित होने के आरोप उत्तराखण्ड स्थित उद्योग पर लगाये गये थे। जो कि निरीक्षण के समय निराधार पाये गये। अगेतर यह भी अवगत होना चाहें कि उत्तराखण्ड की सीमा से शुकताल की दूरी 45 से 50 किमी है। उक्त दोनो नदियों में निरन्तर अच्छा बहाव रहता है। जिस कारण यह कहना उचित नही है कि उत्तराखण्ड राज्य स्थित उद्योगों द्वारा नदी की गुणवत्ता प्रभावित हो रही है।

सधन्यवाद यथोपरि।

भवदीय,

सत्यापित प्रति

(सुभाष चन्द्र पंवार)
क्षेत्रीय अधिकारी (प्र0)

CEO	CEE
CSO (Admn)	SEE
Nodal-EIA	Nodal-SWM
Nodal-Legal	Nodal-Acct.

प्रतिलिपिः-

1. सदस्य सचिव महोदय, उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड, देहरादून को सादर सूचनार्थ प्रेषित।
2. जिलाधिकारी महोदय, हरिद्वार को सूचनार्थ प्रेषित।

क्षेत्रीय अधिकारी (प्र0)

414

(7)

क्षेत्रीय कार्यालय
उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड
सिंचाई परिकल्प भवन परिसर, रूड़की -247667 हरिद्वार

पत्रांक-यूकेपीसीबी/आर0ओ0आर0/सहमति/आर-118(Vol-II)/2023/728 दिनांकः 11.09.2023

पंजीकृत डाक द्वारा

सेवा में,

सदस्य सचिव महोदय,
उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड,
देहरादून।

Uttarakhand Pollution Control Board
Diary No. 4008
Date 11/09/2023.

विषयः- मै0 आर0बी0एन0एस0 शुगर मिल, लक्सर के 5 कि0मी0 परिधि में NSI kanpur की गई जांच के सम्बन्ध में।

महोदय,

कृपया उपरोक्त विषयक बोर्ड मुख्यालय के पत्रांक सं0- यूकेपीसीबी/एचओ/सहमति/ आर0-95(Vol-II)/2023/383 दिनांक 10.07.2023 के आदेश के अनुक्रम में दिनांक 08.09.2023 को क्रमशः Kudinet wala, Raisi Road में स्थित हैन्डपम्प एवं मै0 आर0बी0एन0एस0 शुगर मिल के कम्पोस्ट यार्ड के पास स्थित हैन्डपम्प को सील कर दिया गया है। (फोटोग्राफ संलग्न)।

उपरोक्तानुसार सिलिंग रिपोर्ट आपके अवलोकनार्थ एवं आवश्यक कार्यवाही हेतु सादर प्रेषित् है।

संलग्नकः- यथोपरि।

भवदीय,

11/09/2023

(एस0 पी0 सिंह)
क्षेत्रीय अधिकारी

415

सिलिंग रिपोर्ट

बोर्ड मुख्यालय के आदेश सं0- यूकेपीसीबी/एचओ/सहमति/आर0-95(Vol-II)/2023/383 दि0 10.07.2023 के अनुक्रम में आज दिनांक 08.09.2023 को क्रमशः Kudinet wala, Raisi Road में स्थित हैन्डपम्प व मै0 आर0बी0एन0एस0 शुगर मिल के कम्पोस्ट यार्ड के पास स्थित हैन्डपम्प को मै0 आर0बी0एन0एस0 शुगर मिल, लक्सर, जिला-हरिद्वार के प्रतिनिधि श्री एस0पी0 सिंह, (महा प्रबंधक) एवं श्री ईश्वर पाल की उपस्थिति में इस कार्यालय द्वारा सील कर दिया गया है।

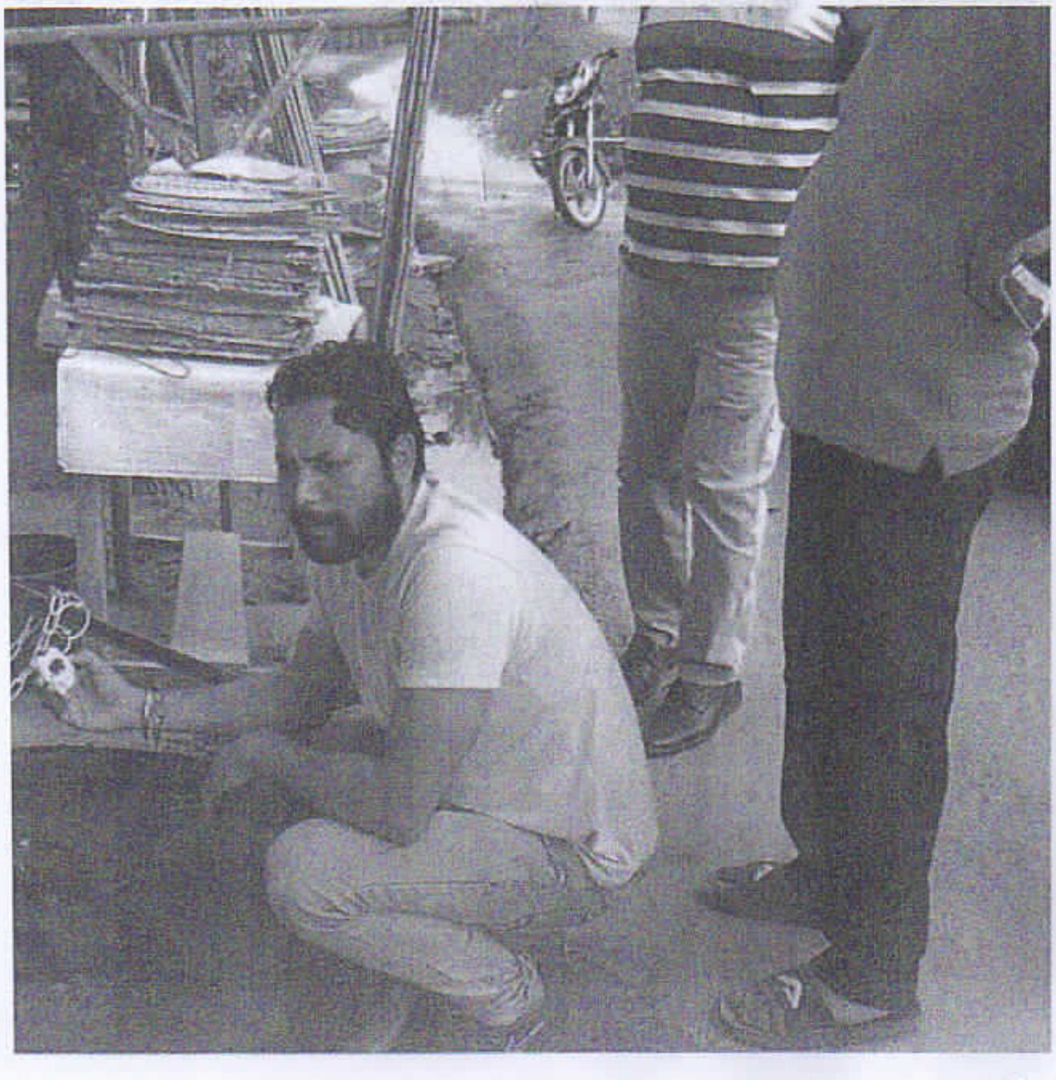
ईश्वर पाल, (कैमिस्ट)
मै0 आर0बी0एन0एस0ए
शुगर मिल, लक्सर, हरिद्वार

एस0पी0 सिंह, (महा प्रबंधक)
मै0 आर0बी0एन0एस0
शुगर मिल, लक्सर, हरिद्वार

08/9/2023
(सुनील डबराल)
अनुश्रवण सहायक

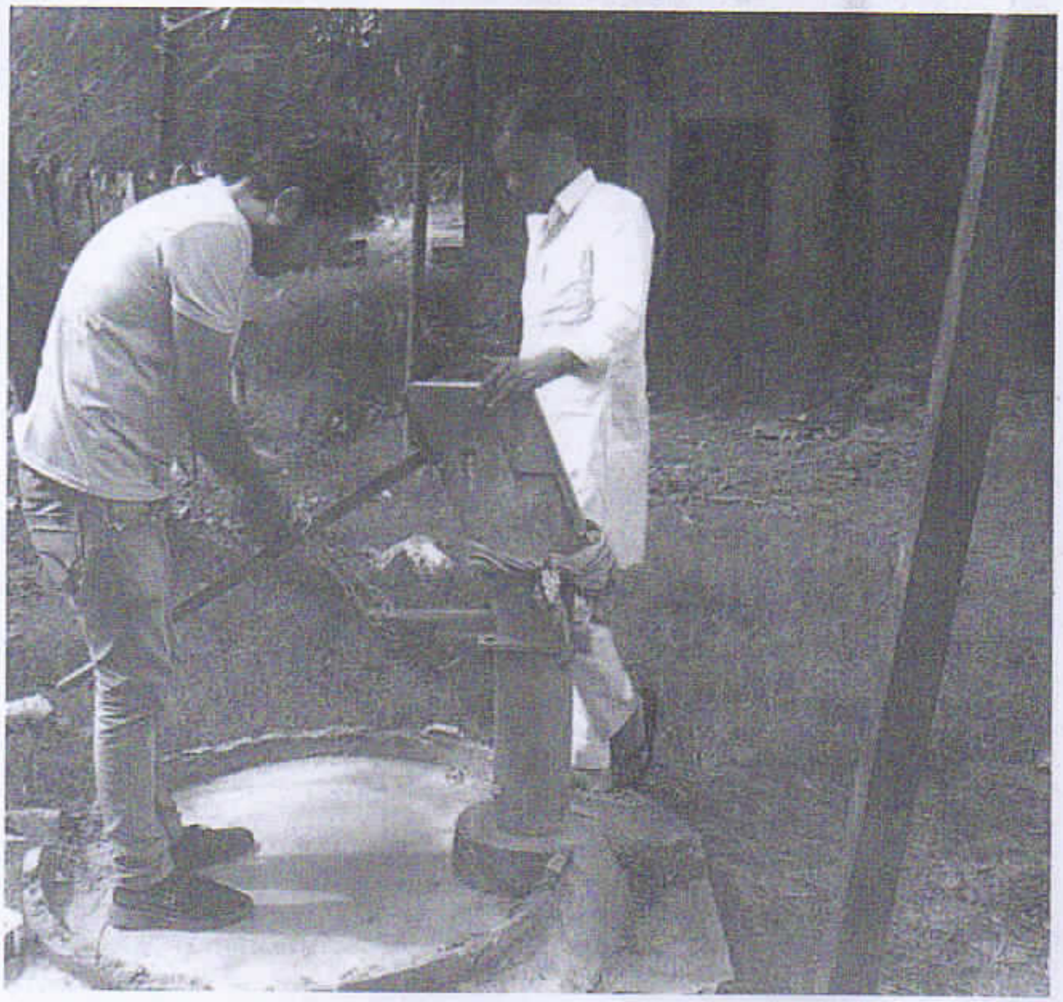
R.B.N.S. Mills Ltd. LAKSAR

A Kudinerwala, Raisi Road, Haridwar (4)



417

eate Campus of Compost yard on RPDNS Sugar mill (10)



GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-2 SECTOR)
***

Dated: 10.08.2021

MINUTES OF THE 38th MEETING OF THE EXPERT APPRAISAL COMMITTEE

(INDUSTRY-2 SECTOR PROJECTS)

HELD ON 28th - 29th July, 2021

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

(i) Opening Remarks by the Chairman: The Chairman made hearty welcome to the Committee members and appreciated the efforts of the Committee. After opening remarks, the Chairman opened the EAC meeting for further deliberations.

(ii) Confirmation of minutes: The EAC, having taken note that final minutes were issued after incorporating comments received from the EAC members on the minutes of its 37th Meeting of the EAC (Industry-2) held during 07th -08th July, 2021 conducted through Video Conferencing (VC), confirmed the same.

After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

Details of the proposals considered during the meeting **conducted through Video Conferencing (VC)**, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under: -

28th July, 2021 (Wednesday)

Agenda No. 38.1

Proposed Different Grades of Carbon Black (Production Capacity - 1.925 Lakh Tonne/Annum) Manufacturing Unit and 36 MW Waste Heat Recovery Based Cogeneration Captive Power Plant by M/s. PCBL (TN) LTD located at Plot No. A7, SIPCOT Industrial Complex,

Village Thervoykandigai, Taluka Gummidipoondi Dist Thiruvallur, State Tamilnadu - Consideration of Environmental Clearance reg.

[IA/TN/IND2/206780/2021, J-11011/128/2021-IA-II(I)]

The project proponent and their consultant M/s. Aqua-Air Environmental Engineers Pvt. Ltd., made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal is for Environmental Clearance to the project for Proposed Different Grades of Carbon Black (Production Capacity - 1.925 Lakh Tonne/Annum) Manufacturing Unit and 36 MW Waste Heat Recovery Based Cogeneration Captive Power Plant by M/s. PCBL (TN) LTD located at Plot No. A7, SIPCOT Industrial Complex, Village Thervoykandigai, Taluka Gummidipoondi Dist Thiruvallur, State Tamilnadu**.** In ToR application proposal applied was for Production capacity 2.60 Lakh Tonne /Annum and Captive Power plant is 50 MW. Capacity has been reduced of the Production capacity because of following reasons: -

1. During detailed engineering the company was not able to fulfill the mandatory requirement of 33% green belt with ToR Production capacity.

2. Change in Carbon Black market scenario. The company has reduced Production Capacity & pollution load in the Application of EC and Increased Green belt area within the premises to achieve 33% of Green belt as per the Norms.

All Products are listed at S.N. 5(e) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC)

The ToR has been issued by Ministry vide letter No. IA-J-11011/128/2021-IA-II(I); dated 2nd April, 2021. Public Hearing for the proposed project is exempted, as unit is located in Industrial Complex of SIPCOT (State Industries Promotion Corporation of Tamilnadu Limited). M/s. State Industries Promotion Corporation of Tamilnadu obtained Environmental Clearance from MoEFCC, New Delhi vide letter No. 21-41/2009. IA III dated: 09/08/2010. It was informed that no litigation is pending against the proposal.

The details of products and capacity are as under:

Sr. No.	Description	Quantity (in ToR application)	Quantity (In EIA report)*
1	Carbon Black	745 MT per day (2,60,750 MTPA) (Considering 350 working days)	550 MT per day (1,92,500 MTPA) (Considering 350 working days)
2	Waste Heat Recovery Based	50 MW	36 MW

	Cogeneration CPP		
***Note**: Carbon black Production and CPP capacity was reduced from ToR application due to the Market Strategy and demand			

It was informed that 242892.53 m^2 land area will be used for proposed project. Industry will develop Greenbelt in an area of 33% i.e., 81315 (33.47%) m^2 out of 242892.53 m^2 of area of the project. The estimated project cost is Rs. 615.00 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 116.50 Crores and the Recurring cost (operation and maintenance) will be about Rs. 11.57 Crores per annum. Total Employment will be 1425 persons as direct & indirect for proposed project. Industry proposes to allocate in next 5 years @ 2.5% of the profit towards Corporate Social Responsibility & Rs 6.15 Crores (approx.) in next 2 years @ of 1% of the Capital Investment towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ waterbodies: KKTK Reservoir ~ 0.89 Km (N), Canal near Tambunaidupalaiyam ~ 2.12 Km (SSE), Canal near Karadiputtur ~ 2.2 Km (W), TG/Satya Sai Ganga Canal ~ 4.86 Km (W), Arani River ~ 7.13 Km (SSE).

Ambient air quality monitoring was carried out at 8 locations during March, 2021 to May, 2021 and the baseline data indicates the ranges of concentrations as: PM_{10} (46.25 – 54.63 µg/m^3), $PM_{2.5}$ (21.75 – 25.83 µg/m^3), SO_2 (6.55 – 8.11 µg/m^3) and NO_2 (13.42 – 17.45 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.54 µg/m^3, 3.37 µg/m^3 and 0.34 µg/m^3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 3583.0 m^3/day of which fresh water requirement of 2785.0 m^3/day will be met from SIPCOT. Effluent of 559.0 m^3/Day quantity will be treated through ETP consisting of primary treatment facility followed by RO, MEE & ATFD Unit. The sewage generated will be treated in STP of 50 m^3/Day and the treated sewage will be used for green belt development. So, the plant will be maintaining Zero Liquid discharge system.

Power requirement during Operation phase & construction phase for proposed project will be 11.20 MW & 0.4 MW respectively and will be met from CPP/TANGEDCO (Tamil Nadu Generation and Distribution Corporation Limited). 2 Nos. DG set of 1200 KVA & 1300 KVA capacity shall be used

as standby during power failure. Stack (height 30 m) will be provided as per CPCB norms to the proposed DG sets.

Unit shall have 3 Nos. of 54 MT/hr, 86 kg/cm^2 Off Gases Waste gas based Boilers will be installed. Adequate stack height as per CPCB Norms of 90 m will be installed for controlling the Particulate emissions respectively.

Details of process emissions generation and its management:

1) Flue Gas Emission:

Emission source	APC measure proposed	Stack height	Fuel Name & Quantity
DG set: 1x1300 & 1x1200 KVA	Adequate stack height as per CPCB Norms	30m AGL	Diesel (500 Lit/hr
*Waste gas based Boilers: Set-1: 54 MT/hr, 86 kg/cm^2 Set-2: 54 MT/hr, 86 kg/cm^2, Set-3: 54 MT/hr, 86 kg/cm^2	Adequate stack height as per CPCB Norms	90m AGL	Off Gases (495197 Nm3/hr)
Note: *In form -1, Boiler capacity is mentioned as 32 TPH, 80 TPH, 24 TPH & 60 TPH (each 1 Nos) One Boiler is removed due to the reduction in production capacity			

2) Process Gas Emission:

Emission source	APC measure proposed	Stack height (m)
2 Nos. of Flare Stacks	Adequate stack height as per CPCB Norms	50 AGL
Vapor Bag Collectors – 6 Nos. of Stacks	Bag Collectors	60 AGL
Dryer – 6 Nos. of Stacks	Bag Collectors / ESPs	60 AGL
Process Bag Collectors – 2 Nos. of Stacks	Bag Collectors / ESPs	50 AGL
Venturi Scrubbers – 2 Nos. of Stacks	Not Applicable	50 AGL
Dedusting & Rerun Bag Collectors – 12 Nos.	Not Applicable	20 m

Details of Solid waste/Hazardous waste generation and its management:

Categories of Hazardous/Solid Wastes shall be generated from this Unit.

Sr. No.	Details of Waste	Scheduled as per HWM rules	Proposed Quantity TPA	Storage and Disposal
1	Used or Spent Oil	5.1	6.0	Collection, Storage, Transportation and sell to TNPCB Authorized Recyclers or reuse in the process.
2	Sludge & MEE Salt	35.3	3990* (WTP Sludge-2800 MEE Salt-1190)	Collection, Storage, Transportation and disposal at TSDF-Gummidipoondi.
3	ETP Sludge	35.3	175	Collection, Storage, Transportation and disposal at TSDF-Gummidipoondi or can also be sent to cement plant.
4	Empty Container/ bags/Discarded drums/ Barrels/ Liners/ Waster paper bags/ waste plastic	33.1	12	Collection, Storage, Transportation and sell to TNPCB Authorized Recyclers
5	Used Filter cloth	-	2.0	Collection, Storage, Transportation and sell to TNPCB Authorized Recyclers
6	Used Oily cotton waste/weather hand gloves/ cotton hand gloves	33.2	2.0	Collection, Storage, Transportation and disposal at TSDF-Gummidipoondi.
7	Discarded filter medium (bag filter)	36.2	12.0	Collection, Storage, Transportation and disposal at TSDF-Gummidipoondi.
8	Ceramic wool/ waste insulation material	-	12.0	Collection, Storage, Transportation and disposal at TSDF
9	Spent Ion exchange resins	35.2	1.0	Collection, Storage, Transportation and disposal at TSDF

10	Oily Sludge emulsion	I – 4.1	15.0	Collection, Storage, Transportation and disposal at TSDF
11	Used Batteries	-	0.1	Collection, Storage, Transportation and disposal at TSDF
12	Spent Acid batteries	I – 36.2	0.024	Collection, Storage, Transportation and disposal at TSDF
	Note: * In Form-1, ETP sludge & MEE salt is mentioned as 6210 TPA			

Solid Waste Generation

Sr. No.	Description	Construction Phase Quantity (Kg/day)	Operation Phase Quantity (Kg/d)	Method of Collection	Method of Disposal
1	Solid Waste	250	Inorganic waste-76.5	Bins	Send to TNPCB authorized vendors
			Organic waste-114.75		Convert to manure by using OWC
2	STP Sludge	-	5.0		Used as a manure for Greenbelt

Note: As per CPHEOO norms-0.45 kg/day/capita

Paper / Card Board, Dust bin collection, dry leaves, grass, Metal scrap & wooden scrap will be recycled /sent to authorize dealer.

Certified Compliance Report is not applicable as this is proposed unit.

After detailed deliberations, EAC suggested to invest entire CER budget in field of education, health and solar power distribution. CER activities shall be such that they can be monitored and CER budget shall be invested before commencement of industrial operations. Project proponent proposed that the project is being set up on crash basis for setting up industries before 2022 end to avail special tax incentive. In view of this, PP requested to complete all activities within two years after commencement of production, which the committee agreed. CER budget shall be invested as well as monitored by third party audit also. PP agreed to above and submitted revised CER activities break up along with undertaking for the same.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given 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 report. 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 project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area.

The EAC has deliberated the proposal and has made 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 have found the proposal in order and have **recommended** for grant of Environmental Clearance.

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its 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 project proponent 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.

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance and subject to compliance of terms and conditions as under, and general terms of conditions at Annexure: -

(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). Total water requirement is 3583.0 m^3/day of which fresh water requirement of 2785.0 m^3/day will be met from SIPCOT. Necessary permission in this regard shall be obtained from the concerned

regulatory authority. The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.

(iii). 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.

(iv). Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

(v). Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.

(vi). Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.

(vii). Regular VOC monitoring shall be done at vulnerable points.

(viii). The oily sludge shall be subjected to melting pit for oil recovery and the residue shall be bio-remediated. The sludge shall be stored in HDPE lined pit with proper leachate collection system.

(ix). Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.

(x). The company 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 vapour recovery system.
(f) Use of high pressure hoses for equipment cleaning etc. to reduce wastewater generation.

(xi). The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

(xii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water

supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall be completed within time and CER activities (monitorable) as proposed shall be conducted along with proper monitoring of the same before commencement of operations of industry.

(xiii). The project proponent shall ensure 70% of the employment to the local people, as per the applicable law. The project proponent shall set up a skill development centre/provide skill development training to village people.

(xiv). A separate Environmental Management Cell (having qualified person 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.

(xv). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.

(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 server. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.

(xvii). PP to 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.

(xviii). The National Emission Standards for Petrochemical (Basic & Intermediates) issued by the Ministry vide G.S.R. 820 (E) dated 9th November, 2012 as amended time to time shall be followed.

(xix). Recommendations of mitigation measures from possible accident shall be implemented based on advanced risk Assessment studies conducted for worst case scenarios using latest techniques.

Agenda No. 38.2

Proposed laying of LPG pipeline in Kandla–Viramgam–Gandhinagar-Sanand Section of Kandla Gorakhpur Pipeline, District Gandhinagar, Gujarat by M/s IHB limited- Consideration of Environment and CRZ Clearance reg.

[IA/GJ/IND2/114428/2019, IA-J-11011/256/2019-IA-II(I)]

The proposal is for Environmental and CRZ Clearance to the project for Kandla – Viramgam – Gandhinagar - Sanand section of Kandla Gorakhpur Pipeline by M/s IHB LIMITED.

Earlier proposal was considered by the EAC in its 36th meeting held on 16-17th June, 2021 in the Ministry, wherein the project proponent and their consultant M/s. Anacon laboratories Pvt. Ltd. Nagpur, presented the EIA/EMP report as per the ToR. The Committee found the EIA/EMP report complying with the ToR and **recommended** the project for grant of environmental clearance.

On examining the case, it was found that PP has applied only for EC and not mentioned regarding CRZ clearance in Form -2 or EIA or any documents related to EC application. When proposal was analysed in details then it was found that SCZMA clearance has been obtained for which EDS was generated," Kindly provide all documents submitted to GCZMA while obtaining clearance. Clearance has been obtained from GCZMA, whereas in Form 2, CRZ specific details are not applicable. Clarify."

EDS reply was," Stand-alone application for CRZ submitted through offline mode to GCZMA. While submitting Form-2, there is no provision to input application already made offline for CRZ. Hence "NA" option was selected for all offline/ stand-alone applications. However, details of the same were uploaded under additional information."

The project requires CRZ recommendation/clearance and it has obtained CRZ clearance from GCZMA on 9th April, 2021. Accordingly, file was processed to CRZ division of the Ministry for their comments. CRZ Division stated that "The proposed activity is a permissible activity as per the extant norms of the CRZ regulations and the specific conditions, which are not suggested by SCZMA and relevant for the project may be imposed as given below:

i. The PESO clearance shall be obtained, if related by M/s IHB Private Limited before commencing the project / activities.

ii. All necessary permissions from different Government Department / agencies shall be obtained by M/s IHB Private Limited before commencing the project / activities.

iii. All conditions/recommendations stipulated by the Gujarat Coastal Zone Management Authority (GCZMA) vide their letter No. ENV-10-2021-14-T, dated 09/04/2021, shall strictly be complied with".

Competent Authority decided to again reconsider the proposal in EAC for CRZ recommendation and as per adequacy of marine EIA / EMP report.

The proposal was again considered by the EAC in its 38th meeting held on 28-29th July, 2021 in the Ministry wherein the project proponent and their consultant M/s. Anacon laboratories Pvt. Ltd. Nagpur, presented the marine EIA/EMP report and stated that both Environmental and CRZ clearance required.

The EAC, after detailed deliberations, **recommended** the project for grant of Environmental and CRZ clearance, subject to compliance of terms and conditions and general terms of conditions as per the earlier 36th EAC meeting held on 16-17th June, 2021 and this meeting.

Agenda No. 38.3

Expansion and De-bottlenecking of existing Petro-Chemical Plant by M/s Reliance Industries Limited located at Plot No. 1, Notified Industrial Area, GIDC Dahej, Bharuch, Gujarat – Re-consideration of Environment Clearance reg.

[IA/GJ/IND2/209217/2020, J-11011/39/2016-IA II (I)]

The proposal is for Environmental Clearance (EC) for Expansion and De-bottlenecking of existing Petro-Chemical Plant by M/s Reliance Industries Limited located at Plot No. 1, Notified Industrial Area, GIDC Dahej, Bharuch, Gujarat.

The proposal was earlier placed before the EAC (Ind-2) in its 34th meeting held during 28th to 29th April, 2021 wherein EAC deferred the proposal.

The proposal was again considered by the EAC in its 35th meeting held on 02nd June, 2021 in the Ministry, wherein the project proponent and their consultant M/s. ERM India Pvt. Ltd., presented the EIA/EMP report as per the ToR. The Committee found the EIA/EMP report complying with the ToR and **recommended** the project for grant of environmental clearance.

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance, subject to compliance of terms and conditions and general terms of conditions.

Subsequently, an email was received dated 17.06.2021 from project proponent after issuance of Minutes of Meeting (MoM) regarding certain specific conditions to be modified as per their industry operations. Enlisted below are specific conditions which needs to be modified according to the request of PP:

v. Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

Request by PP: We request you to please consider not to impose the condition of a guard pond for storm water.

vii. Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.
Request by PP: As there is no ash generation in the units proposed in the present proposal we request you to kindly delete the condition for ash disposal or else modify it to prescribe compliance to the Ministry's Notification on Fly Ash.

ix. The oily sludge shall be subjected to melting pit for oil recovery and the residue shall be bio-remediated. The sludge shall be stored in HDPE lined pit with proper leachate collection system.
Request by PP: We request you to kindly not include this condition in the EC.

x. Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.
Request by PP: We request you to kindly waive this condition as any oil catcher will only be an impediment to the free flow in the storm water and not serve any purpose other than obstructing the flow.

When the proposal was processed for grant of EC, competent Authority decided to again deliberate the proposal in EAC as per PP request.

The proposal was again considered by the EAC in its 38th meeting held on 28-29th July, 2021 in the Ministry wherein the project proponent and their consultant M/s. ERM India Pvt. Ltd., presented the certain specific conditions with specific remarks.

After detailed deliberations EAC recommended the exclusion of the condition number (v), (vii) & (x). Condition number (ix) remains unchanged. Also, PP was asked to submit undertaking stating that the discharge in storm water drain shall meet CPCB standards. PP submitted the undertaking in compliance of above. Details are as follows:

Specific Conditions of Ministry	**PP request with justification**	**EAC recommendation**

(v). Process effluent / any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	i. The Dahej Manufacturing Division (DMD), established in 1995, has a well-designed, properly-knit and adequately sized independent effluent and storm water network. ii. Both these networks are so designed that they are independent of each other and hence, there is no possibility of contamination of the storm water stream. iii. DMD site is spread over an area of 618 Ha and thus has a huge catchment area and the guard pond to be established for storing storm water will require a very large capacity of about 6.5 million m3. ***Considering the network and systems in place at DMD, we request you to please reconsider imposing the condition "Storm water drain shall be passed through guard pond".***	After deliberation EAC has accepted the PP request and exclusion of this condition. PP was asked to submit undertaking stating that the discharge in storm water drain shall meet CPCB standards. PP submitted the undertaking in compliance of this.
(vii). Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.	i. Process organic residues and spent carbon is being disposed by co-processing in cement industries. However cement industries are not always in a position to accept these wastes. The wastes then need to be incinerated in common incinerators as provided in the HOWM Rules 2016. This may be allowed as an operational requirement. ii. The disposal in TSDF of ETP sludge has an alternative of coprocessing in cement plants which is being practiced. There is no process inorganic or evaporation salt generated at DMD which needs to be disposed.	After deliberation EAC has accepted PP request and exclusion this condition.

	iii. The present proposal does not involve setting up of any boilers that will generate ash. iv. The ash generated from the existing, operational coal fired boilers in our power plant, is being handled / disposed strictly as per the Notification of the Ministry. ***We request you to kindly delete the condition for ash disposal or modify it to prescribe compliance to the Ministry's Notification on Fly Ash.***	
(ix). The oily sludge shall be subjected to melting pit for oil recovery and the residue shall be bio-remediated. The sludge shall be stored in HDPE lined pit with proper leachate collection system.	i. DMD being a petrochemical processing unit, there is no recoverable oil in the sludge generated. ii. The generated sludge, is disposed through co-processing or incineration; in compliance to the HOWM Rules, 2016 and authorization granted by SPCB. iii. The sludge generated in ETP is the only sludge generated and cannot be treated by bio-remediation. It is disposed in secure landfill site. **We request you to kindly not include this condition in the EC.**	After deliberation EAC has not accepted the request of PP. This condition would remain unchanged.
(x). Oil catchers / oil traps shall be provided at all possible locations in rain / storm water drainage system inside the factory premises.	i. DMD site has units based on gas cracking. The resultant cracked gas is further processed in the downstream units of the gas cracker. ii. As free oil is not envisaged to be generated in the process, oil catchers have not been considered while designing the storm water system at DMD. iii. DMD being a petrochemical complex, we have not	After deliberation EAC has accepted the PP request and exclusion of this condition.

	experienced any such contamination. iv. The storm water is separated from the effluent carrying pipelines and there is no intermingling of the two streams. **We request you to kindly waive off this condition as provision of oil catchers will only be an impediment to the free flow in the storm water channel and not serve any other purpose.**	

The EAC, after detailed deliberations, **recommended** the project for grant of Environmental clearance, subject to compliance of terms and conditions and general terms of conditions as per the earlier 35th EAC meeting held on 02-03rd June, 2021 and this meeting.

29th July, 2021 (Thursday)

Agenda No. 38.4

Proposed Expansion of Sugarcane Crushing Capacity from 4800 TCD To 7500 TCD and Distillery Capacity from 45 KLPD To 200 KLPD (Ethanol) Based on Sugarcane Syrup/"B" Heavy Molasses/"C" Molasses/Denature Spirit as Raw Material" at Kacharewadi, Taluka. Mangalwedha, District. Solapur, Maharashtra by M/s Utopian Sugars Limited- Consideration of Environment Clearance.

[IA/MH/IND2/211517/2019, J-11011/223/2015-IA II (I)]

The Project Proponent and the Accredited Consultant M/s. Dr. Subbarao's Environment Centre, Sangli made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project expansion of Sugarcane crushing capacity from 4800 TCD to 7500 TCD and Distillery Capacity from 45 KLPD To 200 KLPD (Ethanol) Based on Sugarcane Syrup/"B" Heavy Molasses/"C" Molasses/Denature Spirit as Raw Material M/s Utopian Sugars Limited located at Kacharewadi, Taluka. Mangalwedha, District. Solapur, Maharashtra.

The project/activities are covered under category A of item 5 (g) 'Distilleries' and 5 (j) Sugar Industry of the Schedule to the EIA, 2006 and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC). The proposal has been submitted under the Ministry's EIA Notification, 2006 amendments vide Notification no. S.O. 345(E) dated 17th January 2019 & extension of notification S.O. 750(E) dated 17th February 2020, S.O 980(E) dated 2nd March, 2021. Accordingly, the proposal shall be appraised as category 'B2' project. It was informed that no litigation is pending against the proposal.

Ministry issued EC for the distillery unit of 45 KLPD **Vide F. No. SEIAA-EC-0000002299 dated 20.07.2020** and it was commissioned in the year 2020 and as per EIA Notification there is no requirement of Environment Clearance for sugar industry having sugarcane crushing capacity is less than 5000 TCD.

The details of products and capacity are as under:

Sr. No.	Unit	Capacity			
		Existing	**Proposed**	**Total**	
1.	Sugarcane crushing capacity	4800 TCD	2700 TCD	7500 TCD	
2.	Cogeneration Power Plant	14.8 MW	--	14.8 MW	
3.	Distillery	45 KLPD	155KLPD	200 KLPD	
	Rectified Spirit or	45 KLPD	--	45	Only one product at a time
	Extra Neutral Alcohol or	45 KLPD	--	45	
	Ethanol	45 KLPD	--	45	
	Ethanol	45 KLPD	155 KLPD	200	Utilized for EBP.

Existing land area is 344400 m^2; no additional land is required for proposed expansion. Industry will develop greenbelt in an area of 33.34 % i.e. 11.48 HA out of total area of the project. The estimated project cost is Rs.125 Crores. Total capital cost earmarked towards environmental pollution control measures for existing capacity is Rs 34.40 Crores and the recurring cost (operation and maintenance) is about Rs 3.50 Crores per annum. For proposed expansion of project capital cost earmarked towards environmental pollution control measures will be Rs. 19.05 Crores and the recurring cost (operation and maintenance) will be Rs. 1.66 Crores. Total Employment will be 110, out of which 70 persons as direct & 40 persons indirect after expansion. Industry proposes to allocate Rs 94 Lakhs (0.75%) towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Manganga River is flowing at a distance of 9.12 km in North-West direction.

Ambient air quality monitoring was carried out at 2 locations for January 2021 and the monitoring results indicate the ranges of concentrations as: PM10 (69 – 74 µg/m3), $PM_{2.5}$ (29 – 30µg/m3), SO_2 (8 - 10µg/m^3) and NOx (10 - 15µg/m3). As PUC is a B2 project baseline data is not required.

Total fresh water requirement of the plant will be 121 KLPD out of which 78 KLPD for distillery unit shall be met from ground water and rest 43 KLPD for domestic purpose shall be met from Ujani canal. Sugar effluent of 1095 m3/day shall be treated in existing sugar ETP by upgrading it. Distillery effluent 243 m3/day shall be treated based on concentration incineration and drying in spray dryer.

Power requirement after expansion will be 11000 KVA and will be met from its own existing 14.8 MW co-generation power plant. At present, 2*500 KVA DG Set with a Stack height of 6 m above roof level is provided as per CPCB norms for the DG sets. Existing unit has one bagasse fired boiler 1*82.5 TPH and 1*15 TPH incineration boiler. After the proposed expansion the 1*80 TPH of bagasse fired boiler for sugar unit and distillery unit will be installed. ESP with a stack of height of 60 m shall be provided.

Details of process emissions generation and its management:

SO_2 and CO_2 gases shall be scrubbed. CO_2 gas shall be recovered.

Details of Solid waste/Hazardous waste generation and its management:

Pressmud generated will be around 300 MT/D which shall be sold as manure. Fly ash generated will be 711 MT/M. Ash generated shall be used for brick manufacturing in factory premises. The total quantity of ETP sludge generated shall be 50 MT/M, which shall be sold as manure. Hazardous waste i.e. spent oil of 1.01 MT/Annum shall be utilized in-house for the lubrication of bullock carts.

Certified compliance report submitted by RO, MoEFCC- F.No.: EC-975/RON/2019-NGP/8211 dated 01.07.2021 mentioned one non-compliance and six partial compliances. PP informed that ATR has been submitted to IRO, Nagpur.

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion of 155 KLPD will be for manufacturing of fuel ethanol only.

After detailed deliberations, EAC observed that proposed parking area is 16% and suggested that parking area shall be increased to at least 18%. Further, EAC directed that PP shall commit that composting wouldn't be done. PP agreed the same.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given 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 report. 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 project proponent.

The Committee noted that the EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made 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 have found the proposal in order and have **recommended** for grant of environmental clearance.

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its 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 project proponent 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.

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance, subject to compliance of terms and conditions as under, and general terms of conditions at Annexure: -

(i). As per OM dated 16th June, 2021, project falls in category B2 and the proposed additional capacity of 155 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(ii). 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.

(iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.

(iv). Total fresh water requirement after expansion will be 121 KLPD which shall be met from ground and Ujani canal. Prior permission shall be obtained from the concerned regulatory authority/Irrigation division in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Rainwater shall be collected in storage ponds and utilized for plant activities. Ground water monitoring shall be done regularly and report is to be submitted to concerned authorities regularly.

(v). The spent wash shall be concentrated in MEE and dried in spray drier and as committed composting shall not be done.

(vi). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(vii). 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.

(viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.

(x). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

(xi). The company 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 vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

(xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery.

Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall be completed within time as proposed.

(xiv). There shall be at least 18% parking space out of total area of plant site which shall be earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(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 server. 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). A separate Environmental Management Cell (having qualified person 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.

Agenda No. 38.5

Expansion of Molasses Based Distillery from 60 KLPD to 120 KLPD by installation of new 60 KLPD Ethanol Plant at Village Laksar, Tehsil Laksar, District Haridwar, Uttarakhand by M/s. Rai Bahadur Narain Singh Sugar Mills Limited (Distillery Division)- Consideration of Environment Clearance.

[IA/UK/IND2/218585/2021, J-11011/618/2010-IA II(I)]

The Project Proponent and the Accredited Consultant M/s. J.M. EnviroNet Pvt. Ltd made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project expansion of Molasses Based Distillery from 60 KLPD to 120 KLPD by installation of new 60 KLPD Ethanol Plant by Rai Bahadur Narain Singh Sugar Mills Limited located at Village Laksar, Tehsil Laksar, District Haridwar, Uttarakhand.

The project/activities are covered under category A of item 5 (g) 'Distilleries' of the Schedule to the EIA, 2006 and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC). The proposal has been submitted under the Ministry's EIA Notification, 2006 amendments vide Notification no. S.O. 345(E) dated 17th January 2019 & extension of notification S.O. 750(E) dated 17th February 2020, S.O 980(E) dated 2nd March,2021. Accordingly, the proposal shall be appraised as category 'B2' project. It was informed that no litigation is pending against the proposal.

Ministry had issued EC earlier vide letter no. J-11011/78/2005-IA-II (I) dated 24th May, 2006 to the existing operational project in favor of Rai Bahadur Narain Singh Sugar Mills Limited (Distillery Division).

The details of products and capacity are as under:

S. No.	Unit	Existing	Proposed Additional	Total after expansion	Remarks
1.	Distillery	60 KLPD (Ethanol /ENA/ RS)	New 60 KLPD Ethanol Plant	120 KLPD	Additional increased 60 KLPD capacity will be Ethanol only

Existing land area is 14.5 hectares (145000 m^2). The proposed expansion will be done within the existing plant premises so no additional land is required. Industry has already developed greenbelt in an area of 35% i.e. 5.0 ha (50000 m^2) out of total area of the project. The estimated project cost is Rs. 33.0 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 15.0 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.5 Crore per annum. Total Employment will be 56 persons as Permanent & 7 persons as temporary during operation phase after expansion. Industry proposes to allocate Rs. 66 Lakhs @2 % of total project cost towards Social developmental activities.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc., within 10 km distance from the plant site. There is 1 Reserved Forest (RF) within 10 km radius namely Pathri Reserve Forest (3.0 km in NE direction). River i.e. Harwaha Nadi (1.0 km in West direction), Pathari Rao (1.5 km in NE direction), Pir Khala (2.5 km in NNE direction), Begam Nadi (4.0 km in ESE direction), Bodi Nadi (5.0 km in WSW direction), Solani River (5.0 km in West direction), Banganga River (5.5 km in SE direction), Pathawa Nadi (5.5 km in North direction) are flowing within 10 km radius.

Total fresh water requirement after expansion will be 474 KLPD which will be met from Groundwater and condensate water of their own Sugar Mill. Effluent of 886 KLPD quantity after expansion will be treated through state of art CPU (1050 KLPD Capacity) Treatment Plant (Anaerobic- UASB Reactor, Extended Aeration ASP, Clarifiers, Filters, & Chlorine chamber). The plant will be based on Zero Liquid discharge system.

Power requirement for distillery after expansion will be 3.0 MW including existing 1.5 MW and will be met from 30 MW Co-generation Power Plant in adjacent own Sugar Mill & D.G. Sets (for emergency). Sugar Mill Plant has one DG set of capacity 1010 KVA which is used as standby during power failure. Adequate Stack height (6 m) has been provided as per CPCB norms to the existing DG set. No additional DG set is proposed. Existing 70 & 90 TPH Bagasse & Biogas fired boilers are present in own adjacent Sugar Mill. A 30 TPH boiler is kept as standby in Sugar Mill campus for emergency operations which will be used as and when required for distillery operations. No additional boiler will be installed. Wet Scrubber with a stack height of 60 m is already installed in existing 70 & 90 TPH boilers for controlling the particulate emissions within the statutory limit.

Details of process emissions generation and its management:

- Wet Scrubber with stack of adequate height (60 m) is already installed with the boilers to control the particulate and gaseous emissions as per CPCB guidelines. No new boiler is proposed.
- CO2 generated during the fermentation process sold to vendors.
- Online Continuous Emission Monitoring System has been installed with the existing stack and data transmitted to CPCB/SPCB servers.

Details of Solid waste/Hazardous waste generation and its management:

- Presently, Spent Wash generated during the process, is being first treated in Bio-Digester (Bio- Methanation) followed by Multi-effect evaporator and then used for Bio-composting. Bio-compost generated (9922 TPA) is sold to farmers.
- In proposed new Ethanol Plant, spent wash generated in the new Ethanol Plant will be treated in bio-digestor (bio-methanation) followed by Multi Effect Evaporator and concentrated spent wash will be dried in Spray Dryer and the powder will be used as potash rich manure (45 TPD).
- ETP Sludge is being/will be dried and given to farmers to be used as organic manure.
- Used oil (1 MT/Year) generated from the plant machinery/ gear boxes as hazardous waste is being/will be sold out to the CPCB authorized recycler.

Certified EC compliance Report has been obtained by Regional Office, MoEFCC, Dehradun vide F. No: NC-RO/UTR/IND-3/31/2006/2251 dated

08th February, 2021 wherein one non-compliance and two partial compliances were observed. PP has submitted ATR to IRO Dehradun.

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion of 60 KLPD will be for manufacturing of fuel ethanol only.

After detailed deliberations, EAC desired PP to submit ash disposal plan. PP submitted that there is no boiler in the distillery unit. The distillery unit is interlinked with adjacent own sugar mill and the requirement of power and steam is fulfilled from the sugar mill. The adjacent sugar mill has 3 boilers viz., 90 TPH, 70 TPH& 30 TPH (Standby) which are bagasse and biogas based. The ash generated from the sugar mill is being and will be given to the nearby brick manufacturing units. Ash disposal is being and will be done as per the guidelines of CPCB and SPCB.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given 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 report. 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 project proponent.

The Committee noted that the EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made 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 have found the proposal in order and have **recommended** for grant of environmental clearance.

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its 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 project proponent 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.

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance, subject to compliance of terms and conditions as under, and general terms of conditions at Annexure: -

(i). As per OM dated 16th June, 2021, project falls in category B2 and the proposed additional capacity of 60 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(ii). 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.

(iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.

(iv). Total fresh water requirement after expansion will be 474 KLD which will be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/Irrigation division in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Rainwater shall be collected in storage ponds and utilized for plant activities. Ground water monitoring shall be done regularly and report is to be submitted to concerned authorities regularly.

(v). The spent wash generated shall be treated by bio-methanation followed by Multi Effect Evaporator and concentrated spent wash will be dried in Spray Dryer.

(vi). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(vii). 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.

(viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.

(x). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

(xi). The company 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 vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

(xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall be completed within time as proposed.

(xiv). There shall be 20% parking space out of total area of plant site which shall be earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(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 server. 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). A separate Environmental Management Cell (having qualified person 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.

Agenda No. 38.6

Expansion of sugarcane crushing capacity from 12000 TCD to 18000 TCD and molasses based distillery from 160 KLPD to Multi-feed (B heavy, Cane Juice, Grains) based 300 KLPD distillery unit at Shetphalgade, Tehsil- Indapur, District Pune, Maharashtra, by Baramati Agro Limited (Unit-1)– Reconsideration of Environment Clearance.

[IA/MH/IND2/197038/2016, J-11011/106/2016-IA-II (I)]

The proposal was earlier placed before the EAC (Ind-2) in its 33rd meeting held during 07th to 08th April, 2021 wherein EAC deferred the proposal and desired certain requisite information/inputs. Information desired by the EAC and responses submitted by the project proponent is as under:

S.No	ADS	Reply of PP	Observation of EAC
1.	Proper certified compliance report shall be presented along with action taken report for various non-complied points.	PP has submitted the detailed action plan along with costing and time line against the partial non-compliance points.	EAC found the action plan satisfactory.
2.	Action plan for construction of rainwater collection ponds inside plant premises with details i.e. quantity of rainwater collected, capacity and dimensions of storage pond and their utilization for plant activities.	PP has submitted the design details of rainwater and storm-water management plan.	EAC found the reply satisfactory.
3.	Revised water balance shall be submitted taking into account of collection of rainwater.	PP has submitted the revised water balance taking account of collection rain water which resulted in reduction of fresh water	EAC found the reply satisfactory.

		by 100 MT/D for distillery unit.	
4.	Action plan for proper and concrete development of parking area with time frame to be submitted.	PP informed that parking area, cane yard and all the internal roads shall be concreted and submitted the layout plan for the same.	EAC found the same satisfactory.
5.	Action plan for development of road outside plant premises so that nearby farmers can be benefitted as a part of CER and dust problems faced during vehicle movement are avoided.	PP informed that industry has earmarked Rs. 26 Lakhs for the maintenance of roads outside the premises of the industry and activity has been included in the CER Plan. PP submitted that amount shall be spent within 5 years.	EAC found the same satisfactory.

After acceptance of Additional Details Sought Reply submitted by PP the project was again placed in 38th EAC meeting and following information has been submitted:

The Project Proponent and the accredited Consultant M/s SD Engineering Services Pvt. Ltd. made a detailed presentation on the salient features of the project.

The proposal is for environmental clearance to the project for Expansion of Sugarcane crushing capacity from 12000 TCD to 18000 TCD and molasses based distillery from 160 KLPD to multifeed (B-heavy, cane juice, grains) based 300 KLPD distillery unit by M/s. Baramati Agro Limited located at village Shetphalgade, Taluka- Indapur, District-Pune, Maharashtra.

The project/activities are covered under category A of item 5 (g) 'Distilleries' and 5 (j) 'Sugar Industry' of the Schedule to the EIA, 2006 and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC). The proposal has been submitted under the Ministry's EIA Notification, 2006 amendments vide Notification no. S.O. 345(E) dated 17th January 2019 & extension of notification S.O. 750(E) dated 17th February 2020, S.O 980(E) dated 2nd March,2021. Accordingly, the proposal shall be appraised as category 'B2' project. It was informed that no litigation is pending against the proposal.

Ministry had issued EC earlier vide letter No. J-11011/106/2016-IA-II (I) dated 20th March 2017 to the existing project from MoEF & CC, New Delhi

for expansion of sugar unit (4500 TCD to 12000 TCD), Cogeneration Power Plant (20 MW to 70 MW) and Distillery Unit (60 KLPD to 160 KLPD) at post Shetphalgade, Tehsil Indapur, District Pune, Maharashtra in favour of M/s. Baramati Agro Limited

The details of products and capacity are as under:

Sr. no.	Description	Unit	Existing Capacity		Proposed Capacity	Total	Remark
			As per CTO	As per EC			
1.	Sugarcane crushing capacity	TCD	9000 *	12000	6000	18000	None
2.	Co-generation Power	MW	30*	70	0	70	None
3.	Distillery Unit						
a	Rectified Spirit or Extra Neutral Alcohol	KLPD	160*	160	0	160	Only one product at a time (No Change proposed)
b	Ethanol	KLPD	0	0	140	140	For Ethanol Blending Programme

Existing land area is 477600 m^2 & no additional land will be used for proposed expansion. Industry will develop greenbelt in an area of 35.59 % i.e., 170000 m^2 out of net plot area of the project. The estimated project cost is Rs 544.3013 Crores including existing investment of Rs. 419.3013 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 1100.00 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 165.00 Lakhs per annum.
Total Employment will be 450 persons as direct & 500 to 1000 persons as indirect after expansion. Industry proposes to allocate Rs. 0.9375 crores @ of 0.75 % towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Water body Nimbodi Lake is at a distance of 3 Km in North East Direction.

Ambient air quality monitoring was carried out at nine locations during October 2020 to December 2020 and the baseline data indicates the ranges of concentrations as: PM10 43.65 to 74.68 µg/m3), PM 2.5 (22.05 to 54.36 µg/m3), SO2 (5.12 – 24.51 µg/m3), NO2 (9.21 – 28.24 µg/m3)

and CO (0.08 to 1.38 mg/m3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.05 µg/m3, 0.04 µg/m3, 0.51 µg/m3, and 0.20 µg/m3 with respect to PM10, PM2.5, SOx and NOx respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement for the integrated unit shall not exceed 907 MT/D, 713 MT/D, 1044 MT/D and 441 MT/D based on raw material used 'C' molasses + B heavy molasses, 'B' heavy molasses, sugar cane juice and grains respectively. It will be met from Khadakwasla Canal and Ujani Dam. Effluent of quantity 7347 MT/Day (Sugar factory trade effluent- 660 MT/Day, Cogeneration power plant effluent- 237 MT/Day, Excess Condensates 3600 MT/Day, existing 60 KLPD Spent wash 570 MT/Day, 240 KLPD Distillery concentrated spent wash 270 MT/Day, Distillery Condensates and non -process effluent - 1798 MT/Day and domestic effluent of 212 MT/Day). Sugar (660 MT/Day) and Co-generation power plant (237 MT/Day) effluent shall be treated in existing sugar factory ETP based on primary, secondary and tertiary treatment and disposed on land for irrigation. Excess condensates from sugar unit (3600 MT/Day) shall be treated in Sugar Condensates Polishing Unit (CPU) and reused as process water or makeup water for boiler and cooling towers. Existing 60 KLPD Distillery spentwash (570 MT/Day) shall be treated based on biomethanation followed by concentration to 120 MT/Day followed by bio-composting. The condensates 450 MT/Day shall be treated in distillery CPU and recycled back to process and utilities. The effluent generated from 240 KLPD distillery shall be treated based on Concentration and Incineration. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 23.25 MW including existing 15.21 MW and will be met from own Co- generation power from existing 30 MW & proposed 40 MW TG attached to Bagasse/multi-feed fire boiler. Existing unit has 1 No. of DG sets of 500 kVA capacity, additionally 1*500 KVA DG set is used as standby during power failure. Stack (height 6m) will be provided as per CPCB norms to the proposed DG sets. Existing unit has 1* 40 TPH, 1*110 TPH bagasse fired boiler for sugar and cogeneration power plant and 1*10 TPH and 1*32 TPH Incinerator boiler for distillery unit. Additionally, 1*110 TPH and 1*50 TPH bagasse fired boilers will be installed. Electrostatic Precipitator (ESP) with a stack of height of 75 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boilers.

Details of process emissions generation and its management:

Air pollution control measures

Sr. No	Boiler details	Fuel	Quantity	Source	Stack Height in Meters	APC Equipment
Existing						
Sugar Unit						
1	1*110 TPH	Bagasse	1080 MT/Day	Own sugar unit	65	ESP
2	1*40 TPH	Bagasse	418 MT/Day	Own sugar unit	49	ESP
3	DG Set	HSD	110 Ltr/hr	Open Market	6	Acoustic Enclosure
Distillery unit						
1	1*10 TPH	Biogas + Bagasse	Biogas: 32000 m3/Day Bagasse: 48 MT/Day	Anaerobic digester from distillery Own sugar unit	40	Wet Scrubber
2	1* 32 TPH Incinerator boiler	Concentrated Spent wash + Coal	CSW: 270 MT/Day Coal: 85 MT/Day	Distillery Spent wash Open market	70	ESP
3	DG Set (500 KVA)	HSD	110 Ltr/Hr	Open Market	6	Acoustic Enclosures
Proposed						
Sugar Unit						
1	1*110 TPH	Bagasse	1080 MT/Day	Own sugar unit	75	ESP
2	1*50 TPH	Bagasse	520 MT/Day	Own sugar unit		
Distillery Unit						
No additional boiler shall be installed for the proposed expansion.						

Details of Solid waste/Hazardous waste generation and its management:

Details of non-hazardous waste generated and its disposal

Sr. No.	Description of waste	Quantity			UOM	Mode of collection and disposal
		Existing	Proposed	Total		
	Sugar and cogeneration unit					
1	Fly/ Boiler ash	18.73	20	38.73	MT/D	Sell to brick manufacturers
2	ETP Sludge	150	150	300	MT/A	After drying, it will be sold for brick kiln
3	Press mud	360	360	720	MT/D	Mixed with concentrated spent wash as filler material and treated in composting
	Distillery unit					
1	Incineration boiler ash	26	28	54	MT/D	Sold as potash rich manure to farmers after mixing with press mud
2	Fly/ Boiler ash	0.6	--	0.6	MT/D	Sell to brick manufacturers
3	Yeast Sludge					
a	C Molasses	15	0	15	MT/D	After drying, it will be sold for brick kiln
b	B Heavy Molasses	13	11	24		
c	Cane Juice	0	5	5		
d	Grains	0	10	10		
	Other solid waste					
1	Canteen waste	1.5	1.0	2.5	MT/D	Composting

Details of hazardous waste generated and its disposal:

Sr. No.	Category	Description of waste	Quantity	Mode of Collection and Disposal
1.	5.1	Used Oil	2.0 KL/A	Shall be collected in Leak Proof Containers and utilized as lubricant for bullock carts

Certified EC compliance report obtained from Regional Officer, MoEF& CC, Nagpur vide File No. EC-5-87/2008/7404 Dated 02.11.2020. Site visit of RO was carried out on 05.10.2020. Partial compliance issued against Specific & general conditions. Industry complied the partial compliance & submitted action plan report to RO, MoEF&CC on 28.11.2020.

As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion of 140 KLPD will be for manufacturing of fuel ethanol only.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given 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 report. 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 project proponent.

The Committee noted that the EMP report is in compliance of the PFR. The Committee has found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made 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 have found the proposal in order and have **recommended** for grant of environmental clearance.

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its 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 project proponent 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.

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance, subject to compliance of terms and conditions as under, and general terms of conditions at Annexure: -

(i). As per OM dated 16th June, 2021, project falls in category B2 and the proposed additional capacity of 140 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is

not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(ii). 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.

(iii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.

(iv). Total fresh water requirement for the integrated unit shall not exceed 907 MT/D, 713 MT/D, 1044 MT/D and 441 MT/D based on raw material used 'C' molasses + B heavy molasses, 'B' heavy molasses, sugar cane juice and grains respectively. It shall be met from Khadakwasla Canal and Ujani Dam. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Ground water monitoring shall be done regularly and report is to be submitted to concerned authorities regularly. Rainwater storage ponds shall be constructed and utilized within plant activities as committed.

(v). The spent wash/other concentrates shall be treated by concentration followed by incineration.

(vi). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(vii). 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. Budget of Rs. Forty (40) lakhs shall be invested for OHS management.

(viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.

(x). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

(xi). The company 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 vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

(xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be 2500 trees per hectares as committed by PP.

(xiii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall be completed within time as proposed.

(xiv). 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, 20% shall be allotted solely for parking purposes.

(xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(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 server. 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). A separate Environmental Management Cell (having qualified person 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.

38.7. Any other items with the permission of the Chair.

Agenda No. 38.7.1

Clarification on applicability of Environment Clearance as per EIA Notification 2006 for our proposed project activity of manufacturing of recycled PET Granules/Chips from post-consumer PET Bottles for M/s JB RPET Industries Pvt. Ltd.- regarding.

The details as informed to EAC for manufacturing activity of recycled PET bottles are mentioned as under:

Process Description:

1st Process: - From PET bottles to Hot washed PET flakes

Debaler Machine – As PET bottles (with caps & labels) often come in bales, compacted bundles tied together with metal wires, the first stage is to get the material into a "free flowing" stream. The "debaler" breaks apart the bales allowing the plastic bottles within to drop onto the belt conveyor that moves the bottles onto the next step.

Trommel Separator – This is a large, slow rotating machine used to remove small pieces of contamination. At the core of the trommel separator, there is a large mesh screen tunnel that rotates between 6-10 rotations per minute. The holes on this tunnel are small enough for not making PET bottles fall through, but they are large enough for small particles of contamination for removal.

Wet Granulator / Crusher – The bottles will be cut into "flakes", or small pieces, via this wet granulator. A granulator uses an open rotor mounted with heavy-duty knives that spin at high speeds. As the PET bottles enter the granulator's cutting chamber, these rotating knives come into contact with stationary knives cutting the bottles into small pieces. A screen with small holes between 12-18mm in diameter will be used to control the size of the flakes. In such scenario, the PET plastic will continue to be cut within the chamber until it is small enough to fall through the holes on this screen. All the while, water will be sprayed into the cutting chamber which partially will be washing the bottles while acting as a lubricate to reduce friction of the knives and plastic.

Label Separator – The stream of plastic leaving the granulator is composed of PET flakes, paper and PP/PE/PVC film from the labels, and

PP/PE rigid plastics from the bottle caps. This mixed stream is now ready to be sorted. The first step is the label separator where a column of pressured air blows away the lighter paper and plastic film into a separate collection tank.

Sink / Float Separation Tank – A large tank of water used to separate materials that sink from those that float. This is the final separation equipment in our PET bottle washing line that effectively removes the left-over plastic films from labels and PP/PE bottles caps. As both the labels and bottle caps float in water, the sinking PET flakes can easily be removed to be further processed in the next piece of equipment.

Hot Washer for PET Flakes – Similar to a washing machine in nature, this stream of PET flakes will be washed using boiling hot water which sterilizes and further gets rid of contaminants such as glues (from the labels being glued on), grease/oils, and difficult to remove left-overs (beverage/foods) from the equation

Friction Washer – A secondary friction washer (cold water) is used to cool and further clean the PET flakes in a scrubbing manner.

High Speed Dewatering Machine – The dewatering machine uses centrifugal or "spinning" force to remove a portion of the water from the PET flakes. It's a cost-effective way to dry the PET flakes before it's thermally dried. Thermal drying consumes much more energy.

Thermal Dryer + Cyclone Separator – The partially dried PET flakes can now be completely dried using the thermal dryers. Within the long tubes of the thermal dryers, hot air and the PET flakes will be mixed together where the leftover moisture is dehydrated. The final cyclone separator mixes the hot, moist air with a flow of cold air cooling the PET flakes in preparation for storage. The cyclone separator is also the last defence against fines such as dust.

Product Silo – A large storage tank for the clean, dry PET flakes.

2nd Process is enumerated as below: -

Sr. No.	Process Name	Process Description
1	Flakes Charging and washing with EG (Ethyl Glycol)	PET Flakes are washed with hot (Mono Ethyl Glycol - MEG) in a vessel to remove contamination like Dust particles

2	Flakes Drying	PET Flakes are rinsed in a friction washer where excess EG is drained out and flakes are transferred to next process
3	Pre-Glycolysis Reactor	Washed PET Flakes are fed into this reactor for melting process. Mono Ethyl Glycol is also added in to this reactor @30% of PET Flake's weight. Thereafter the material remains in this reactor at 180-to-220-degree temperature for 3-4 hours with agitator. The flakes get melt here and glycolysis is triggered in this reactor with the PET melt. The resultant product is transferred to next process
4	Glycolysis Reactor (Depolymerization)	MEG mixed PET melt is processed in a reactor at certain temperature (200-250 Degree) with mechanical agitator for certain time (3-4 hours). So that depolymerization of with PET is achieved, the resultant material is called as Oligomer.
5	Filtration	Said oligomer is passed through filters with high pressure to remove other contamination and suspended particles.
6	Pre-Poly 1	Oligomer is transferred to this vessel to extract free glycol at a certain temperature & pressure under vacuum conditions.
7	Pre-Poly 2(Polymerization)	After addition of additives & catalyst. Oligomer is transferred to this tank to further extract glycol and increase the IV to 0.30 dl/gm.Polymerization reaction starts here
8	Finisher(Polymerization)	Oligomer is transferred to this tank to further extract glycol and increase the IV to 0.64 dl/gm.Polymerization reaction completes here
9	CPF	Polymer is transferred through candle filters for further filtration.
10	Granulation System	Polymer melt is converted into solid state and granulated to form chips/pellets

Chemical reaction:

The post consumed PET Bottle flake is processed with glycol to depolymerization and then that product is again processed for polycondensation for end product.

PET + Glycol = BHET

$[(CO)C_6H_4(CO_2CH_2CH_2O)]_n + HOCH2CH2OH = C_6H_4(CO_2CH_2CH_2OH)_2$

BHET = PET + Glycol

C6H4(CO2CH2CH2OH)2 = [(CO)C6H4(CO2CH2CH2O)]n + HOCH2CH2OH ↑

After detailed discussions and deliberations on the matters related to environmental pollution, various balances i.e. water/mass balances, emissions, effluents from the processes involved, EAC members decided that the project activity of manufacturing of recycled PET Granules/Chips from post-consumer PET Bottles does not require Environmental Clearance and the project proponent can operate the existing/proposed facilities after obtaining requisite consents from State Pollution Control Board and other agencies as applicable.

***

ANNEXURE

GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE

(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 energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.

(iii) 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).

(iv) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

(v) 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.

(vi) A copy of the clearance letter shall be sent by the project proponent 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.

(vii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective 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.

(viii) 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 Regional Offices of MoEF&CC by e-mail.

(ix) 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.

(x) 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.

(xi) 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.

List of the Expert Appraisal Committee (Industry-2) members participated during Video Conferencing (VC) meeting

S. No.	Name and Address	Designation
1.	Dr. J. P. Gupta	Chairman
2.	Sh. R.K. Singh	Member
3.	Sh. Ashok Agarwal	Member
4.	Dr. Y.V. Rami Reddy	Member
5.	Dr. T. Indrasena Reddy	Member
6.	Sh. S. C. Mann	Member
7.	Dr. T. K. Joshi	Member
8.	Dr. J. S. Sharma	Member
9.	Sh. Dinabandhu Gouda, CPCB	Member
10.	Sh. Ashok Kr. Pateshwary, Director, MoEFCC	Member Secretary
MoEFCC		
11.	Dr. Mahendra Phulwaria	Scientist 'C'
12.	Sh. Kanaka Teja	Research Assistant
13.	Ms. Meetika Gupta	Research Associate

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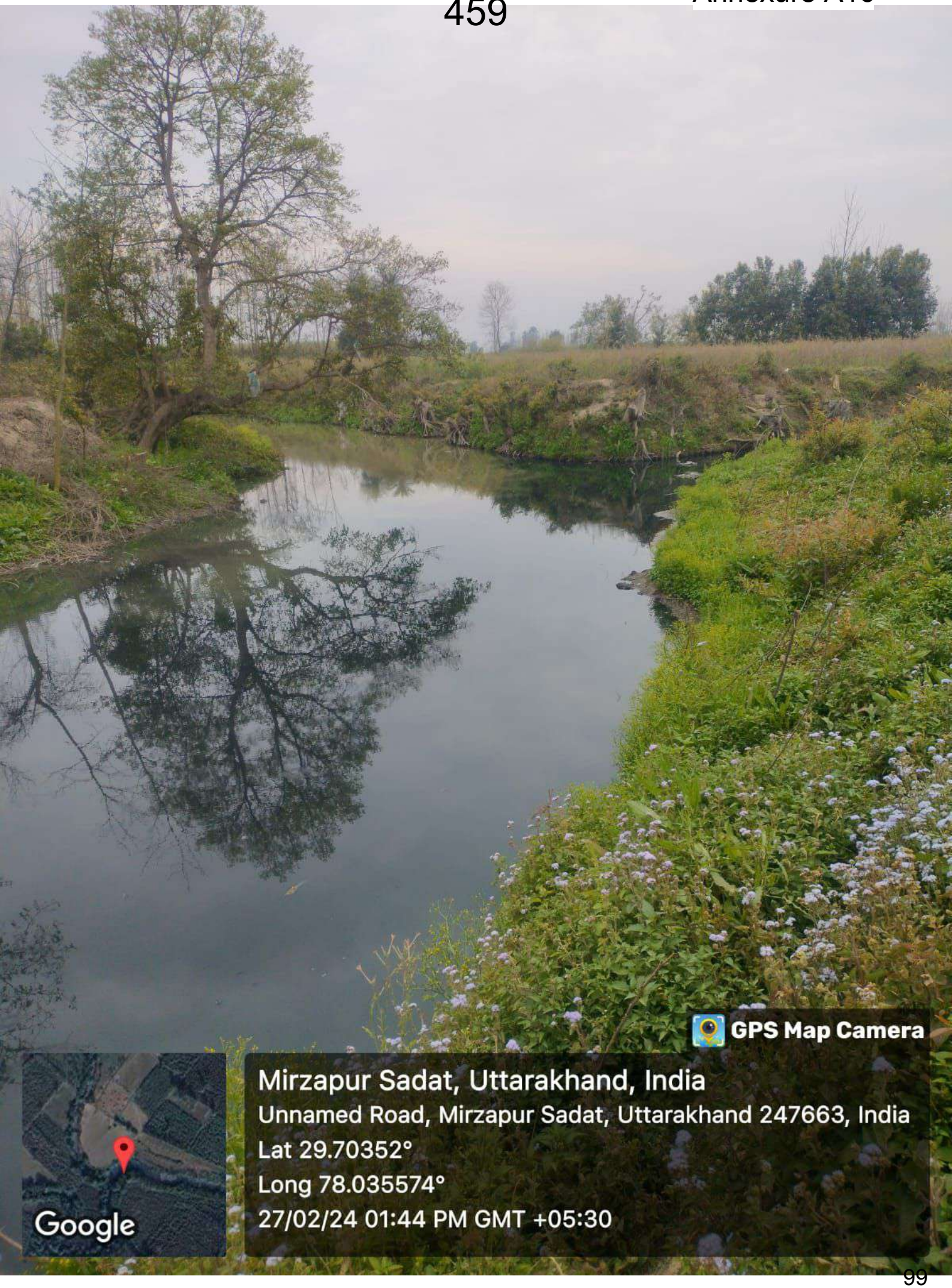
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Google

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Google

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Long 78.036565°
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Google


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Long 78.037196°
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