

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, KOLKATA

*(Under Section 16 read with Section 18, and 20 of the
National Green Tribunal Act 2010)*

13
APPEAL NO. OF 2026

IN THE MATTER OF:

Odisha Jana Adhikar Parisada

(Thr. Its Managing Trustee, Bijay Kumar Parida) Appellant

Versus

Union of India & Ors.

...Respondents

SL. NO.	PARTICULARS	PAGES
1.	APPEAL UNDER SECTION 16 READ WITH SECTIONS 19 AND 20 OF THE NATIONAL GREEN TRIBUNAL ACT, 2010 CHALLENGING THE EC DATED 28.02.2026 AND SEEKING CONSEQUENTIAL RESTITUTIONARY AND REMEDIAL RELIEFS ALONG WITH SUPPORTING AFFIDAVIT	1-25
2.	ANNEXURE 1 COPY OF THE ENVIRONMENT CLEARANCE ('EC') DATED 28.02.2026	26-96
3.	ANNEXURE 2 COPY OF THE VESTING ORDER DATED 30.05.2020	97-100
4.	ANNEXURE 3	101-104

	COPY OF THE CONSENT TO ESTABLISH ('CTE') DATED 04.12.2021	
5.	ANNEXURE 4 COPY OF THE PERMANENT VESTING ORDER DATED 15.02.2022 PASSED BY DEPARTMENT OF STEEL & MINE, GOVERNMENT OF ODISHA	105-106
6.	ANNEXURE 5(COLLY) COPY OF THE LETTER DATED 19.09.2024 ALONG WITH THE MONITORING REPORT	107-141
7.	ANNEXURE 6 COPY OF THE 35 TH MEETING OF EAC	142-162
8.	ANNEXURE 7 COPY OF THE COMPLAINT DATED 26.12.2024	163-167
9.	ANNEXURE 8(COLLY) COPY OF THE ADS/EDS RAISED ALONG WITH THE REPLIES	168-199
10.	ANNEXURE 9 COPY OF THE COMPLAINT DATED 27.12.2025	200-204
11.	ANNEXURE 10 COPY OF THE SATELLITE IMAGES FROM 2023 AND NOVEMBER 2024 CLEARLY SHOW THESE FACILITIES CONSTRUCTED WITHOUT PRIOR ENVIRONMENTAL CLEARANCE OR CONSENT TO ESTABLISH	205-207
12.	VAKALATNAMA	208

THROUGH

S.Pani *A.Padhi*

ADVOCATES FOR THE APPELLANT

PLACE: BHUBANESWAR

SANKAR PRASAD PANI

ASUTOSH PADHI

DATE: 31 .03.2026

Cell-9437279278,

Email: sankarprasadpani@gmail.com

SYNOPSIS

Present Appeal is challenging the grant of environment Clearance dated 28/02/2026 in favor of **Narayanposhi Iron & Manganese Ore** mining for **enhancement in production capacity of Iron Ore (ROM) from 6 to 10 MTPA & Overburden(OB) 4.216 MTPA with total excavation 14.216 MTPA** along with Mobile Crushing & Screening Plant (400TPHx10 Nos & 250TPHx07 Nos), **Central Processing Unit(CPU) 2000 TPH**, Grinding & Beneficiation Plant 6.0MTPA for Mineral Processing & Slurry Pumping Station to transport Iron Ore Concentrate in the **ML area 349.254Ha** by **M/s JSW Steel Ltd located at Sundargarh, Odisha**. The grounds relied in assailing the EC are as follows

1. The Respondent No. 3 proceeded with the construction of a 2000 TPH Central Processing Unit and a **6.0 MTPA Beneficiation Plant within the mining lease area**, solely relying on Consent to Establish dated 04.12.2021 & earlier EC being granted to AMTC. The Satellite images from 2023 and November 2024 clearly show these facilities constructed without prior environmental clearance and same has not been considered. **The project should have been appraised under violation category as the construction work commenced prior to grant of EC but has been appraised under Fresh EC category** large-scale withdrawal of water from the already stressed **Baitarani River** estimated for approx **287 lakh cubic metres annually** for **Respondent No. 3's two slurry pipeline project** will have long-term adverse impact on competing users such as domestic and agricultural purposes apart from the impact on E flow of the river and this aspect has not been considered
2. An EC obtained on the basis of incomplete and misleading disclosure is vitiated by fraud and is void ab initio..It is submitted that the

Environment Clearance has been obtained on the basis of **false representations.**

3. Respondent No. 3 has **committed misrepresentation and suppression of material facts before the Expert Appraisal Committee by failing to transparently disclose the proximity of the project to critical water bodies, including the Karo River, Orahari Nallah, Kashira Nallah, and Narayanposhi Nallah.**
4. A school is currently located only **80 metres** from the ultimate pit limit (UPL). **The EC mandates that no blasting occur within 500 metres of schools without specific permission, yet allows the school to remain without any alternative arrangement.**
5. **Impact on Wildlife Corridors:** The mine is located within 5-10 km of the **Karo-Karampada Elephant corridor** - That the provided conservation plans are insufficient to prevent man-elephant conflict or habitat disruption

LIST OF DATES

- | | |
|-------------------|--|
| 01/04/2015 | Guidelines framed by the MOEFCC for diversion of forest land for non-forest purposes under the Forest (Conservation) Act 1980- Submission of proposals to obtain approval for diversion of entire forest land located within a mining lease. |
| 04/12/2021 | the Consent to Establish ('CTE') for establishment of a Central Crushing & Screening Plant of capacity 2000 TPH (Central Processing Unit) within the Mining Lease area of Narayanposhi Iron & Manganese Ore Mine Of M/s JSW Steels Ltd., At -Koirra, Post- Koida, PS-Koida, Block-Koida, Tahasil- Koida |

- 15/02/2022** A permanent vesting order was passed by Department of steel & Mine, Government of Odisha transferring the mining lease along with valid licenses and approvals to Respondent No.3 for a period of 50 years
- 19/09/2024** Monitoring Report filed by the MOEFCC in respect of Expansion of Narayanposhi Iron & Manganese Ore Mining Project of M/s JSW Steel Ltd located in Village(s) Koira & Kashira, Tehsil Bonai, District Sundergarh, Orissa
- 26/12/2024** Complaint made by the Applicant to all the concerned authorities.
- 28/02/2026** Environment Clearance granted in favor of **Narayanposhi Iron & Manganese Ore** mining for **enhancement in production capacity of Iron Ore (ROM) from 6 to 10 MTPA & OB 4.216 MTPA with total excavation 14.216 MTPA** & existing capacity of Manganese Ore (ROM) 0.036 MTPA & OB 0.223 MTPA with total Excavation 0.259 MTPA along with Mobile Crushing & Screening Plant (400TPHx10 Nos & 250TPHx07 Nos), CPU 2000 TPH, Grinding & Beneficiation Plant 6.0MTPA for Mineral Processing & Slurry Pumping Station to transport Iron Ore Concentrate in the **ML area 349.254Ha** [(ML Area: 347.008ha (As per DGPS)/ 349.254ha (As per ROR)] by M/s JSW Steel Ltd located at Sundargarh, Odisha.

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, KOLKATA

*(Under Section 16 read with Section 18, and 20 of the
National Green Tribunal Act 2010)*

APPEAL NO. OF 2026**IN THE MATTER OF:**

Odisha Jana Adhikar Parisada

Thr. Its Managing Trustee, Bijay Kumar Parida

... Appellant

At- Nizampur Po-Paripada , Jajpur, Odisha 751011

Versus

1. Union of India

Through the Secretary

Ministry of Environment, Forest & Climate Change

Indira Paryavaran Bhawan,

Jor Bag Road,

New Delhi-110003

Email: secy-moef@nic.in.... Respondent No.1

2. Odisha State Pollution Control Board

Through the Member Secretary

At/Po- A/118, Unit-VII, Nilakantha Nagar, Bhubaneswar, PIN-751012, Odisha,

Email: member.sec@ospcboard.org Respondent No.2

3. JSW Steel Limited

Through its Managing Director

JSW Centre

Bandra Kurla Complex,

Bandra (East)

Mumbai - 400051.

Email- baswaraj.dalgade@jsw.in.... Respondent No.3

MOST RESPECTFULLY SHOWETH:

- I. That the address of the Counsels of the Appellant is given below for the service of notices of this Appeal.
- II. That the addresses of the Respondents are given above for the service of notices of this Appeal.
- III. That the present Appeal is being filed under Section 16 of the National Green Tribunal Act, 2010 seeking intervention of this Hon'ble Tribunal to quash the EC letter dated 28/02/2026 granted in favor of **Narayanposhi Iron & Manganese Ore Mine in Sundargarh District, Odisha**

MOST RESPECTFULLY SHOWTH

6. The Appellant, Odisha Jana Adhikar Parisada, is a public spirited organisation working for environmental justice and the protection of the rights and livelihoods of communities in Odisha. The Appellant has been closely following the activities of Respondent No. 3 at the Narayanposhi Iron & Manganese Ore Mine, Koira, Sundargarh District and its impact on local livelihood and environment apart from the violation of environment laws. Appellant has also filed multiple detailed representations to the regulatory authorities regarding the gross violations of environmental law committed by Respondent No. 3, which were ignored while granting the impugned Environment Clearance
7. That the present Appeal is against the grant of environment Clearance dated 28/02/2026 in favor of **Narayanposhi Iron & Manganese Ore** mining for **enhancement in production capacity of Iron Ore (ROM) from 6 to 10 MTPA & OB 4.216 MTPA with total excavation 14.216**

MTPA & existing capacity of Manganese Ore (ROM) 0.036 MTPA & OB 0.223 MTPA with total Excavation 0.259 MTPA along with Mobile Crushing & Screening Plant (400TPHx10 Nos & 250TPHx07 Nos), CPU 2000 TPH, Grinding & Beneficiation Plant 6.0MTPA for Mineral Processing & Slurry Pumping Station to transport Iron Ore Concentrate in the **ML area 349.254Ha** [(ML Area: 347.008ha (As per DGPS)/ 349.254ha (As per ROR)] by M/s JSW Steel Ltd located at Sundargarh, Odisha. Copy of Environment Clearance dated **28/02/2026** is annexed here with as **ANNEXURE-1**

8. Brief Facts are as follows -

- i. That Respondent No.1 accorded environmental clearance ('EC') to **Aryan Mining & Trading Company (AMTC) on 18.06.2019**. Thereafter, the Government of Odisha, pursuant to the Mines and Minerals (Development and Regulation) Act, 1957 read with Mineral Rules 2015, issued a notice dated **06.12.2019** inviting tenders for initiating the auction process for the grant of lease. During the auction process, Respondent No.3 emerged as the preferred bidder and therefore, the EC granted in favour of the erstwhile lessee (AMTC) for production of **6 MTPA iron ore and 2 MTPA beneficiation capacity** vested with the Respondent No.3. The department of Steel and Mines, Government of Odisha issued a **vesting order on 30.05.2020** thereby transferring the mining lease to Respondent No.3 for a period of two years. Copy of the vesting order dated **30.05.2020** is annexed herewith and marked as **Annexure-2**
- ii. Thereafter, on **04.12.2021**, the **Consent to Establish ('CTE')** for establishment of a Central Crushing & Screening Plant of capacity 2000 TPH (Central Processing Unit) within the Mining Lease area of Narayanposhi Iron & Manganese Ore Mine Of M/s JSW Steels Ltd., At -Koirā, Post- Koida, PS-Koida, Block-Koida, Tahasil- Koida in

the district of Sundargarh, Odisha with certain conditions. Copy of the **Consent to Establish ('CTE')** dated **04.12.2021** is annexed herewith and marked as **Annexure-3**

- iii. Further, on **15.02.2022**, a permanent **vesting order** was passed by **Department of steel & Mine, Government of Odisha** transferring **the mining lease along with valid licenses and approvals to Respondent No.3 for a period of 50 years**. Copy of the permanent vesting order dated 15.02.2022 passed by Department of steel & Mine, Government of Odisha is annexed herewith and marked as **Annexure -4**
- iv. Soon after the transfer of the lease, Respondent No.3 applied to Respondent No.1 for grant of EC vide an application on **22.06.2024**. Thereafter, the Respondent No.1 raised Essential details Sought ('EDS') on **25.06.2024**, seeking submission of latest certified compliances.
- v. Thereafter, **a site inspection was conducted on 30.08.2024** and a monitoring report was submitted by the **Regional Office, Bhubaneswar vide letter 19.09.2024** by to Respondent No.1. The report consisted of the status of compliance to the conditions of the EC and environmental management of the project. Screenshot of the findings & observations are as follows. Copy of the **letter dated 19.09.2024** along with the monitoring report is annexed herewith and marked as **Annexure-5 and 5A**
- vi. Respondent No.3 submitted a point wise reply to the Action taken report of Respondent No.1 on **20.09.2024**. Further, the Respondent No.1 on 23.09.2024 raised Additional details sought ('ADS') with respect to submission of latest certified compliance report in accordance with ministry's OM dated 08.06.2022.

In view thereof, the Respondent No.3 submitted an application dated **24.09.2024 for expansion of the project**. The project of the Respondent No.3 was considered in the 35th EAC meeting held on 28-29 October, 2024, wherein after considering the proposal the **committee deferred its decision by raising various issues**. Copy of the 35th meeting of EAC is annexed herewith and marked as **Annexure-6**

- vii. Thereafter in view of the continuing violation of the EPA 1986 & EIA 2006, a **complaint dated 26.12.2024 was filed to the concerned authority**, bringing to their notice the gross and continuing violations of the EPA and the EIA Notification, 2006 by Respondent No. 3. However, the said representations were unheard/unnoticed. Copy of the Complaint dated 26.12.2024 is annexed herewith and marked as **Annexure-7**.
- viii. In the **38th EAC meeting held on 27.12.2024**, the proposal of the respondent no.3 was again considered. The respondent no.3 submitted that they are constructing a plant as per the earlier EC. Since the submission differed in response to the reply, it was decided to conduct an inspection of the site. Thereof, meeting was deferred in want for requisite information. Further, an **ADS was raised by Respondent No.1 on 27.02.2025** to provide a point wise response to the complaint dated 26.12.2024, regarding alleged violations of the EIA and the act and a reply to the same was submitted by Respondent No.3 on **02.03.2025**.
- ix. On 19.03.2025, another ADS was raised to submit a report on **current status of installation of beneficiation plant** in the project after site inspection by Regional Officer, Bhubaneswar. In view of the discrepancy in the reply and the submissions made in the EAC

meeting, an inspection was conducted by Regional officer, Bhubaneswar on 26.03.2025.

- x. In accordance to the inspection conducted, the Regional officer, Bhubaneswar submitted its report on 04.04.2025 observing that *“During visit incomplete construction was observed on the premises. PP reported that 80 Percent of construction of 2000 TPH crushing and screening plant construction and erection work is completed. It was also reported that it is likely to be completed by July2025. During visit installation of beneficiation plant part has not been observed. The construction activity observed on 26.03.2025 at the proposed central processing unit for conveyor, primary crusher, screens, cone crusher, stackers, ECR buildings and the stacker along with proposed electrical control room -II for stacker. The construction activity of the beneficiation plant is yet to be started.”*
- xi. However, the inspection conducted on 26.03.2025 lacked due diligence and failed to correctly assess the extent and status of construction of the Beneficiation Plant, resulting in an inaccurate appraisal. Images showing the status of the construction site is ANNEXED here with as **ANNEXURE-8**
- xii. Further, in the 46th EAC meeting held on 25.06.2025, the proposal for the project of Respondent No.3 was again deferred on account of certain queries. In view thereof, an ADS was raised. The Respondent No.3 vide letter dated 21.08.2025 replied to the ADS. Further, queries were raised in the form of ADS dated 28.05.2025, EDS dated 22.10.2025 and ADS dated 30.11.2025. The Respondent No.3 vide its letter dated 02.09.2025, 01.11.2025 and 06.01.2026 respectively replied to the queries raised. Copy of the ADS/EDS raised along with the replies are annexed herewith and marked as **Annexure-9(Colly)**

- xiii. Thereafter, the Appellant made a series of detailed representations dated 07.11.2024, 25.11.2024, 24.12.2024, 26.12.2024, 28.12.2024, 05.04.2025, 15.04.2025, 20.04.2025, 30.04.2025, 23.05.2025 and 10.11.2025 to the concerned authorities, bringing to their notice the gross and continuing violations of the EPA and the EIA Notification, 2006 by Respondent No. 3. However, the said representations were unheard/unnoticed. In the meantime, another complaint dated 27.12.2025 was made to the authority, bringing to their notice the gross and continuing violations of the EPA and the EIA Notification, 2006 by Respondent No. 3. However, the said representations were unheard/unnoticed.

Copy of the complaint dated 27.12.2025 is annexed herewith and marked as **Annexure- 10**.

- xiv. Despite not getting an EC and in absence of the other requirements, the Respondent No.3 commenced the constructions for the following:

- i. Iron ore production: 10 MTPA**
- ii. Mobile crushing units**
- iii. Central Processing Unit – 2000 TPH**
- iv. Beneficiation Plant – 6.0 MTPA**
- v. Slurry pipeline infrastructure.**

- xv. Respondent No. 3 therefore proceeded with the construction of a 2000 TPH Central Processing Unit and a 6.0 MTPA Beneficiation Plant within the mining lease area before obtaining EAC recommendations or the mandatory EC. **Copy of the Satellite images from 2023 and November 2024** clearly show these facilities constructed **without prior environmental clearance** or Consent to Establish are annexed herewith and marked as **Annexure-12**

- xvi. However, the Respondent No.3 initiated these constructions solely on the basis of the Consent to Establish ('CTE') dated **04.12.2021 & earlier EC being granted to AMTC**. It is relevant to mention that the Respondent No.3 by relying on CTE failed to ignore that the said explicitly provides that **prior EC from Respondent no.1 was a mandatory precondition**.
- xvii. Despite aforesaid representations and the availability of clear documentary evidence in the form of satellite imagery and field photographs, **no effective regulatory action has been initiated** by Respondent Nos. 1 and 2.
- xviii. As a result, the failure of Respondent Nos. 1 and 2 to act against Respondent No. 3 despite clear and repeated notice constitutes an abdication of their statutory duties under the Environment (Protection) Act, 1986 and the EIA Notification, 2006, and has emboldened Respondent No. 3 to continue its illegal activities, thereby causing grave and serious harm to the environment and the lives of the citizens.
- xix. It is submitted that the Hon'ble Supreme Court in the matter of **"Alembic Pharamceuticals vs Rohit Prajapati & Ors"** Civil Appeal No. 1526 of 2016, decided on 01.04.2020 while imposing the fine of Rs. 10 crores on each of the industry held that *"Ex Post Facto Environment Clearance is unsustainable in law"*, the Hon'ble Supreme Court has further in para 23 held that:

"a retrospective EC or an Ex post facto clearance is alien to the environmental jurisprudence as the statutory notification warrants a careful application of mind, besides a study into the likely consequences of a proposed activity on the environment... Moreover, if the EC was to be ultimately refused, irreparable harm would have caused to the

environment. In either view of the matter, environment law cannot countenance the notion of an ex post facto clearance. This would be contrary to both the precautionary principle as well as the need for sustainable development.”

- xx. It is submitted that the Hon’ble Supreme Court in the case of **“Kerala State Costal Zone Management Authority vs The State of Kerala Maradu Municipality & Ors.” (Civil Appeal No. 4784-85 of 2019)** has held while ordering for demolishing of the building which were in violation of environment laws that:

“Environment Protection Act is meant to protect the environment and bring about sustainable development. It is the law of the land. It is meant to be obeyed and enforced”

It is submitted that the building in the above-mentioned case was built in violation of the Environment (Protection) Act, 1986 and rules and other notifications under the Environment (Protection) Act, 1986 and the same was ordered to be demolished by the Hon’ble Supreme Court.

9. **The Terms of Reference [“ToR”] for the project were approved on 31.12.2020**, subject to mandatory compliance including preparation of EIA/EMP, public hearing and regulatory approvals prior to construction.

Illegal Construction Prior to Environmental Clearance

10. The above acts constitute gross, deliberate and continuing violations of the Environment (Protection) Act, 1986 and EIA Notification, 2006. Screenshot of the relevant provisions is as follows:

Violation of the Terms of Reference

11. The ToR dated **31.12.2020** mandated that **no construction could commence without: (i) EIA/EMP studies; (ii) public hearing; and (iii) prior environmental clearance.** The Respondent No. 3 applied for

amendment of TOR and proposal was considered in the 45th EAC (Non-Coal Mining) meeting held during 24th, 25th and 27th January, 2022. The EAC meeting had noted that project proponent Respondent No. 3 had not carried out the public hearing.

12. In this regard, it may be noted that the villages of **Harishchandrapur, Koira, Kashira, Kusmdihi, and Kathamala** are most affected by this non-compliance where there is an RF for construction 2000TPH Central Processing unit and Grinding & 6.0MTPA Beneficiation plant. In fact, instead of complying the approved TOR, preparation of EIA and EMP and public hearing as directed in aforesaid EAC meeting, **Respondent No. 3 started construction of 6MTPA iron ore beneficiation plant in 2023 and more than 90% of the project has been completed in 2024.**
13. The Appellant has made a slew of detailed representations to the authorities, including complaints dated 7.11.2024, 25.11.2024, 26.12.2024 and 27.12.2025, but the same have fallen on deaf ears.
14. It is also relevant to mention that the said EC dated **28.02.2026** should **have been appraised under violation category as the construction work commenced prior to grant of EC but has been appraised under Fresh EC category.**
15. It is submitted that the Environment Clearance has been obtained on the basis of **false representations** and most importantly the present appeal has been filed seeking directions towards the inaction of the various government departments and agencies which has abdicated their statutory duties and has overseen the total lackadaisical manner in which the works have been carried out at the said commercial project in total violations of the Environment Laws. Therefore, the present appeal has been preferred seeking cancellation of the Environment Clearance obtained on basis of fraud with the government departments.

- 16. Conflict with Educational Institutions:** A school is currently located only **80 metres** from the ultimate pit limit (UPL). **The EC mandates that no blasting occur within 500 metres of schools without specific permission, yet allows the school to remain in place for up to one year before relocation is even "explored"**
- 17. Inconsistent Submissions by Proponent:** The Expert Appraisal Committee (EAC) noted discrepancies between JSW Steel's written Additional Details Sought (ADS) replies and their oral submissions regarding the construction of the **beneficiation plant** and crushing units.
- 18. Violation of Forest Land Restrictions:** The project involves **19.256 hectares of undiverted forest land** where mining is strictly prohibited. It is settled principle that when project involves both forest and non-forest land, than no work is to be permitted even on non-forest land till the approval under Forest Conservation Act 1980.
- 19. Non-Compliance with Transportation Standards:** The EC requires a shift to sustainable ore transport (SOTM), **such as railway sidings or conveyor belts**, to mitigate high dust pollution Failure to implement these or the continued use of village roads for transportation are explicit violations of the EC conditions
- 20. Impact on Wildlife Corridors:** The mine is located within 5-10 km of the **Karo-Karampada Elephant corridor** - That the provided conservation plans are insufficient to prevent man-elephant conflict or habitat disruption
21. It is submitted that this Hon'ble Tribunal as well as the Hon'ble Supreme Court in plethora of cases has raised construction beyond the scope approved in the environment clearance and where the authority has failed to follow the binding law. It is submitted that in the following

cases this Hon'ble Tribunal has ordered for demolition of the building constructed without grant of EC and CTE:

- i. H.P. Ranjanna vs. Union of India & Ors. (Appeal No. 54 of 2018) on 30.07.2021 (this Hon'ble Tribunal).
- ii. Kerala State Costal Zone Management Authority vs The State of Kerala Maradu Municipality & Ors (Civil Appeal No. 4784-4785 of 2019) (Hon'ble Supreme Court).
- iii. M.C. Mehta vs Union of India & Ors. (in Re: Kant Enclave Matters).
- iv. Himachal Pradesh Bus Stand Management and Development Authority (HPBSM&DA) vs The Central Empowered Committee Etc. & Ors. (Civil Appeal No. 5231-32 of 2016) (Hon'ble Supreme Court).
- v. Supertech Limited vs. Emerlad Court Owner Resident Welfare Association & Ors. (Civil Appeal 5041 of 2021).

It is submitted that since the structure standing today is illegal, have been built without obtaining prior Environment Clearance, without obtaining the Consent to Establish and in total violation of the terms and conditions of the license and approved building plan as well as other municipal laws, hence, the Environment Clearance dated **28.02.2026 ought to be cancelled.** The said EC granted on 28.02.2026 is vitiated on the facts, in as much as the Ministry approved a **fait accompli after substantial pre-EC construction and despite inconsistent disclosures.**

GROUND

The instant Appeal is being filed on the following grounds amongst other which the Appellant may take up at the time of hearing, without prejudice to each other:-

I. ILLEGAL PRE-EC CONSTRUCTION CONSTITUTING FAIT ACCOMPLI:

- A. Because the Respondent No. 3 has commenced and substantially completed the construction of a 2000 TPH Central Processing Unit and a 6.0 MTPA Beneficiation Plant within the mining lease area, without the mandatory Environmental Clearance which is in gross and deliberate violation of the mandatory pre-conditions stipulated under the EIA Notification, 2006 and the Environment (Protection) Act, 1986. It is relevant to mention that the said EC dated 28.02.2026 has been consistently treated as a fresh EC for 10.0 MTPA ROM iron ore, CPU 2000 TPH, 6.0 MTPA grinding/beneficiation plant and slurry pumping station in the official papers. Therefore, any reliance by Respondent No. 3 on the earlier EC dated 18.06.2019, is irregular and ought to be entirely disregarded.
- B. Because the construction was carried out in direct violation of the ToR dated 31.12.2020, which mandated that no construction could commence without
- (i) completion of EIA/EMP studies
 - (ii) conduct of a mandatory public hearing
 - (iii) grant of prior Environmental Clearance.
- C. Because the Hon'ble Supreme Court of India in *Vedanta Limited v. The State of Tamil Nadu and Ors.*, [2024] 2 S.C.R. 1121 held that right to breathe clean air, drink clean water and environment is necessary for leading a good life and the same must be ensured by the government and institutions.
- D. Because the construction activity commenced solely on the basis of the CTE dated 04.12.2021 issued by Respondent No. 2, which itself explicitly makes prior EC a mandatory pre-condition thereby violating

the terms of the CTE and rendering the said construction wholly unauthorised and illegal from its inception.

- E. Because the Hon'ble Supreme Court in “**Kerala State Coastal Zone Management Authority v. The State of Kerala, Maradu Municipality & Ors. (supra)**” held that the Environment (Protection) Act, 1986 is meant to protect the environment and bring about sustainable development, and that it is the law of the land meant to be obeyed and enforced. Therefore, as the construction was commenced without getting the prior EC, the same is liable to be demolished.
- F. Because the EC dated 18.06.2019 granted in the name of the erstwhile lessee being AMTC and vested in Respondent No. 3 has been wrongly relied upon by Respondent No. 3 to facilitate and continue activities.

II. INADEQUATE ENVIRONMENTAL RISK ASSESSMENT PERTAINING TO WATER BODIES, TAILINGS DISPOSAL, TRANSPORTATION, AND SAFETY MEASURES

- G. Because the **operation of the illegal 6.0 MTPA Beneficiation Plant** poses serious, unassessed, and continuing environmental hazards. Further, the Article 21 of the Constitution of India guarantees to every person the right to life and personal liberty and includes the right to a clean and healthy environment, the right to safe drinking water, the right to livelihood, and the right to be protected from environmental hazards. The Hon'ble Supreme Court in the matter of “*In M.C. Mehta v. Union of India & Ors*” (1987) 1 SCC 395 (*Oleum Gas Leak case*), recognised the right of citizens not to be exposed to hazardous industrial activities without proper safeguards.
- H. Because the proposed **large-scale withdrawal of water from the already stressed Baitarani River estimated for approx 287 lakh**

cubic metres annually for Respondent No. 3's two slurry pipeline project will have long-term adverse impact on competing users such as domestic and agricultural purposes apart from the impact on E flow of the river and hence it is contrary to the principles of sustainable development and the precautionary principle enshrined in environmental jurisprudence.

- I. Because, in terms of the judgment of the Hon'ble Supreme Court in **Alembic Pharmaceuticals Ltd. v. Rohit Prajapati & Ors. (Civil Appeal No. 1526 of 2016, decided on 01.04.2020)**, the Hon'ble Court has categorically held that the grant of **ex post facto environmental clearance is anathema to environmental jurisprudence. Therefore, the impugned EC is consequently vitiated, having been approved by the Ministry as a fait accompli post substantial pre-EC construction**, notwithstanding material inconsistencies in disclosures. JSW, has exhibited deliberate non-compliance with the mandatory stipulation prohibiting any construction prior to grant of EC.

III. APPRAISAL VITIATED BY INCONSISTENT DISCLOSURES AND NON-APPLICATION OF MIND:

- J. Because Respondent No. 3 has **committed misrepresentation and suppression of material facts before the Expert Appraisal Committee by failing to transparently disclose the proximity of the project to critical water bodies, including the Karo River, Orahari Nallah, Kashira Nallah, and Narayanposhi Nallah.** An EC obtained on the basis of incomplete and misleading disclosure is vitiated by fraud and is void ab initio.
- K. Because the 45th EAC (Non-Coal Mining) meeting held in January 2022 constitute a formal, written, and unambiguous finding that Respondent No. 3 had not carried out the mandatory public hearing, which Respondent No. 3 was required to comply with before

undertaking any construction, yet the Respondent No. 3 did not simply fail to comply with this direction but actively and progressively violated it by constructing a 90% complete industrial facility thereby violating the TOR. **And the project should have been treated under Violation category.**

IV. REGULATORY LAPSES NECESSITATING RESTITUTION AND INTERIM PROTECTIVE MEASURES:

- L. Because Respondent Nos. 1 and 2 have abdicated their statutory duties under the Environment (Protection) Act, 1986 and the EIA Notification, 2006 by failing to take any effective enforcement action despite receiving repeated, detailed, and documented complaints from the Appellant. Furthermore, the Hon'ble Supreme Court in "*M.C. Mehta v. Kamal Nath & Ors*", (1997) 1 SCC 388, holds that the State is the trustee of natural resources including rivers, forests, lands, and the atmosphere for the benefit of the public at large, including future generations, and cannot alienate or permit the exploitation of these resources in a manner that impairs or destroys their availability for public use.
- M. Because the Respondent authorities have failed to uphold the Environment (Protection) Act, 1986 in both letter and spirit. The Act mandates the protection, conservation, and improvement of the environment and continuance of the operation without mandatory clearances a violation of its provisions.
- N. Because as per sub-clause (g) of Art. 51-A of the Constitution of India, it shall be the duty of every citizen to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creature. The Respondents are entrusted with the responsibility of protecting the local environment while

ensuring that their developmental activities do not cause harm to the environment. Furthermore, the *Hon'ble Supreme Court in Maneka Gandhi v. Union of India, (AIR 1978 SC 597)*, has affirmed that Article 21 of the Constitution guarantees the fundamental right to life, which includes the right to live with dignity in a safe and healthy environment, free from hazards, disease, and ecological degradation. However, the actions and inaction of the respondents stand in stark violation of this constitutional mandate.

INTERIM PRAYER

Because the balance of convenience is in favour of the Appellant, as the environmental harm caused by the operation of plant is severe, irreversible and in direct violation of established environmental laws and judicial precedents. If the relief sought is not granted, the ecological damage will continue unchecked, leading to a significant loss of biodiversity, deterioration of air quality and heightened risks of natural disasters. **Hence the appellant prays for Stay of the Environment Clearance and further construction pending disposal of the Appeal.**

LIMITATION

That one IA has been filed along with the Appeal to condone the delay of 2 days in filing the present Appeal as the impugned environmental clearance has been granted on dated 28/02/2026 and present appeal has been filed on 01/04/2026.

PRAYER

In lights of the facts and circumstances mentioned herein-above, it is most respectfully prayed that this Hon'ble Tribunal may be pleased to, **Set aside /quash the EC dated 28.02.2026 granted in favor of the private respondent.**

THROUGH**ADVOCATES FOR THE APPELLANT****PLACE- BHUBANESWAR****DATE: 31 .03.2026**



सत्यमेव जयते

File No.: J-11015/62/2020-IA.II(M)

Government of India

Ministry of Environment, Forest and Climate

Change

IA Division



Dated 28/02/2026



To,

Mr. BASWARAJ MAHADEVPPA DALGADE
M/s. JSW STEEL LTD
JSW CENTRE, BANDRA KURLA COMPLEX, BANDRE (EAST), Mumbai, MUMBAI,
MAHARASHTRA, BKC GROUND, 400051
baswaraj.dalgade@jsw.in

Subject: Narayanposhi Iron & Manganese Ore mining with enhancement in production capacity of Iron Ore (ROM) from 6 to 10 MTPA & OB 4.216 MTPA with total excavation 14.216 MTPA & existing capacity of Manganese Ore (ROM) 0.036 MTPA & OB 0.223 MTPA with total Excavation 0.259 MTPA along with Mobile Crushing & Screening Plant (400TPHx10 Nos & 250TPHx07 Nos), CPU 2000 TPH, Grinding & Beneficiation Plant 6.0MTPA for Mineral Processing & Slurry Pumping Station to transport Iron Ore Concentrate in the ML area 349.254Ha [(ML Area: 347.008ha (As per DGPS)/ 349.254ha (As per ROR)] by M/s Jsw Steel Ltd located at Sundargarh, Odisha - For Environmental Clearance reg

Sir/Madam,

This has reference to your online application No. IA/OR/MIN/482860/2024, dated 24.09.2024, submitted to the Ministry for obtaining prior Environmental Clearance (EC) under the provisions of the Environmental Impact Assessment (EIA) Notification, 2006, and subsequent amendments thereto. The application pertains to the Narayanposhi Iron & Manganese Ore Mine, located in Sundargarh District, Odisha, proposed by M/s JSW Steel Ltd. The proposal involves enhancement in the production capacity of Iron Ore (ROM) from 6.0 MTPA to 10.0 MTPA, with an associated overburden (OB) of 4.216 MTPA, making the total excavation 14.216 MTPA. Additionally, the proposal includes the continuation of the existing Manganese Ore (ROM) production capacity of 0.036 MTPA and OB of 0.223 MTPA, with a total excavation of 0.259 MTPA.

The project also includes installation and operation of Mobile Crushing and Screening Plants (10 units of 400 TPH and 7 units of 250 TPH), a Crushing and Processing Unit (CPU) of 2000 TPH, and a Grinding and Beneficiation Plant with a capacity of 6.0 MTPA for mineral processing. A Slurry Pumping Station is also proposed for transporting Iron Ore concentrate. The mining lease area comprises 349.254 hectares [347.008 ha as per DGPS survey / 349.254 ha as RoR].

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24A0000OR5884644N
(ii) File No.	J-11015/62/2020-IA.II(M)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals,2(b) Mineral beneficiation
(vi) Sector	Non-Coal Mining Expansion in Narayanposhi Iron & Manganese Ore Mine [ML Area 347.008 Ha (As per DGPS)/349.254 Ha (As per ROR)] with Iron Ore (ROM 10 MTPA & OB 4.216 MTPA) Total Excavation 14.216 MTPA & with Manganese Ore (ROM 0.036 MTPA & OB 0.223 MTPA) Total Excavation 0.259 MTPA along with Mobile Crushing & Screening Plant (400TPHx10 Nos & 250TPHx07 Nos), CPU 2000TPH, Grinding & Beneficiation Plant 6.0MTPA for Mineral Processing & Slurry Pumping Station to transport Iron Ore Concentrate at Sundargarh, Odisha
(vii) Name of Project	
(viii) Location of Project (District, State)	SUNDARGARH, ODISHA
(ix) Issuing Authority	MoEF&CC
(x) Applicability of General Conditions	No

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-2 (Part A, B and C)/ EIA & EMP Reports were submitted to the MoEF&CC for an appraisal by the EAC under the provision of EIA notification 2006 and its subsequent amendments.

4. The above-mentioned proposal has been considered by EAC in the meeting held on 25-26/06/2025. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed from the PARIVESH portal by scanning the QR Code above.

5. Observation and Recommendation of the Committee:-

The EAC deliberated the ADS points related to environmental clearance for Narayanposhi Iron & Manganese Ore mining with enhancement in production capacity of Iron Ore (ROM) from 6 to 10 MTPA & OB 4.216 MTPA with total excavation 14.216MTPA & existing capacity of Manganese Ore (ROM) 0.036MTPA & OB 0.223MTPA with total Excavation 0.259MTPA along with Mobile Crushing & Screening Plant (400TPHx10 Nos & 250TPHx07 Nos), CPU 2000 TPH, Grinding & Beneficiation Plant 6.0MTPA for Mineral Processing & Slurry Pumping Station to transport Iron Ore Concentrate in the ML area 349.254Ha by M/s Jsw Steel Ltd located at Sundargarh, Odisha.

The instant proposal was earlier recommended by the EAC vide minutes of the 38th EAC-NCM meeting held on 27.12.2024. However, a complaint was received in the Ministry regarding construction of Beneficiation plant in the project more than capacity stipulated in old EC condition on 26.12.2024.

Accordingly, an Additional Details Sought (ADS) dated 27.02.2025 was raised to the Project Proponent (PP) seeking a pointwise reply to the issues raised in the complaint. In its reply dated 02.03.2025 to the ADS, PP stated that *“The construction of crushing and screening plant is started for sizing of iron ore without any upgradation of quality for which CTE is obtained from SPCB-Odisha dated 04.12.2021 as per*

the provision of Air and Water Act. This shall cater the present production capacity of 6 million Tones. It may be noted that the same is not covered by the provisions of EIA Notification, 2006 as clarified in the OM dated 22.09.2008 of MoEFCC. We would like to confirm that no construction activity related to the 6.0 MTPA Beneficiation Plant has begun. MoEFCC may depute any official to check the fact. Additionally, we want to add that no procurement orders for beneficiation equipment have been placed to date”.

However, during 38th EAC meeting on 27.12.2024, PP had submitted that *“they are constructing a beneficiation plant with capacity of 2 MTPA along with crusher and screening plant within the Mine Lease area as per earlier EC dated 18.06.2019”* and it was minutised in the 38th EAC NCM meeting.

Since, PP’s submissions were different in its ADS reply dated 02.03.2025 and its submission during 38th EAC meeting dated 27.12.2024 it was decided after taking inputs from EAC members that Regional Office Bhubaneswar may conduct a site inspection and verify the status of construction of crushing screening plant and beneficiation plant.

Subsequently an ADS dated 19.03.2025 was raised asking that *“PP needs to obtain and submit a report on current status of installation of beneficiation plant in the project after site inspection by MoEFCC RO, Bhubaneswar”*.

Accordingly, RO Bhubaneswar undertook the site inspection on 26.03.2025 and in its report dated 04.04.2025 stated that *“During visit incomplete construction was observed on the premises. PP reported that 80 Percent of construction of 2000 TPH crushing and screening plant construction and erection work is completed. It was also reported that it is likely to be completed by July2025. During visit installation of beneficiation plant part has not been observed. The construction activity observed on 26.03.2025 at the proposed central processing unit for conveyor, primary crusher, screens, cone crusher, stackers, ECR buildings and the stacker along with proposed electrical control room -II for stacker. The construction activity of the beneficiation plant is yet to be started.”*

Since the PPs ADS reply dated 02.03.2025 and report of RO Bhubaneswar after site inspection on 04.04.2025 were not in consonance with 38th EAC minutes therefore the proposal was referred to EAC in its 43rd EAC meeting on 22- 23.04.2025.

During the 43rd EAC meeting PP stated that the construction of crushing and screening plant has been started for sizing of iron ore without any upgradation of quality for which Consent to Establish (CTE) was obtained from SPCB-Odisha vide letter no. 19304/IND-II-CTE-6577 dated 04.12.2021 as per the provision of Air and Water Act. PP further stated that they envisage to replace multiple smaller capacity mobile screening and crushing plant with single point fixed crusher & screen plant for achieving enhanced efficiency, better environmental management by providing suitable enclosures to all the equipment, provide network of dry fog dust suppression system, dust extraction system and development of surrounding green belt area on the proposed location.

EAC noted that the following capacity of crusher and screen was mentioned in the earlier EIA/EMP report on the basis of which EC dated 18.06.2019 was granted: -

S.No.	Crusher/Screening	Capacity	Numbers	Total
1	Mobile Screening	200 TPH	3	600 TPH
2	Mobile Screening	150 TPH	4	600 TPH
3	Mobile Screening	100 TPH	2	200 TPH

4	Fixed Crusher	350 TPH	1	300 TPH
5	Mobile Crusher	150 TPH	1	150 TPH
6	Mobile Crusher	100 TPH	1	100 TPH
7	Stand by Mobile Crusher	150 TPH	1	150 TPH
8	Stand by Mobile Crusher	100 TPH	1	100 TPH
8	Stand by Mobile Screen	150 TPH	2	300 TPH
9	Stand by Mobile Screen	100 TPH	1	100 TPH
10	Stand by Mobile Screen	200 TPH	1	200 TPH
11	Revolving Screen	10 TPH	1	10 TPH

After detailed, deliberation vide minutes of the 43rd EAC, EAC noted that two CTEs were issued to the project by Odisha State Pollution Control Board dated 04.06.2021 and 04.12.2021 with some variations in configuration of crushing and screening facility. Accordingly, EAC asked PP to provide a comparative analysis of the ongoing construction of crushing and screening facilities in comparison with earlier EIA EMP report (on the basis of which EC dated 18.06.2019 was issued) and Consent to Establish dated 04.06.2021 and 04.12.2021 issued by OSPCB. PP was also asked to explain whether there is any change in pollution load due to project activities in the context of variations in configuration of crushing and screening facilities in the project.

The PP replied to the aforesaid queries of the EAC vide letter dated 13.06.2025 and accordingly the matter was referred in the 46th EAC meeting held during 25-26 June 2025. During the meeting, EAC deliberated the ADS points raised vide minutes of the 43rd EAC meeting.

PP presented the following comparative analysis of the ongoing construction of crushing and screening facilities in comparison with earlier EIA/EMP in comparison with earlier EIA/EMP Report (on the basis of which EC dated 18.06.2019 was issued) and Consent to establish dated 04.12.2021:-

S. No.	Description	Ex-lessee EIA	CTE dated 04.12.2021 obtained by JSW	Remarks
1.	Total Production Capacity	Total of 2000 TPH capacity crushing & screening units	Central Crushing & Screening Plant of Capacity 2000 TPH (Central Processing Unit - fixed crushing capacity of 350 TPH) within the ML Area	Total same. mobile and handling. Lesser crushing.
2.	Process	Dry process involving segregation of size fractions through screening and sizing of bigger size rock by crushing, no change in grade.	Dry process involving segregation of size fractions through screening and sizing of bigger size rock by crushing, no change in grade.	Same
3.	Location	Staggered Locations Screens: At Pit Top	Single Location Crushing and	In Both Configurations

Mobile Crusher: At Pit Top Screening plant **processing area is on the Pit Top**
 Fixed crusher: At Pit Top – located at Pit Top in **Fixed crusher at Same location**
 Ear marked the same location as **Same location**
 (Areas are designated as earlier Fixed crusher was earmarked.
 processing and stack yard)

4.	Product Mix	CLO and Fines	CLO and Fines	Same
5.	Nos. of open Feed points	For Operating plants: 09- Screens 03 Crushers For standby plants: 03 Screens 02 Crushers Total= 17 For Operating plants: screens 3 X 9 =27 crushers 3 X 2 = 6 For standby plants: Screens 03 Crushers 02 Total = 38 Feeding excavator, Loader and tippers for Evacuation of processed products – Dedicated set for each mobile screening & crushing plant	01 – Single Feed Hopper 02 – Intermediate discharge 02 – Final product discharge Total = 4	Reduction by 16 nos.
6.	Nos. of Discharge chutes			Reduction by 34 nos.
7.	Auxiliary equipment		No auxiliary equipment	Elimination of all the auxiliary equipment's e.g., Feeding excavator, Loader and Tippers
8.	Environmental protection measures	Water Sprinklers at all discharge, loading and unloading points, Hoods at discharge chute	1. Provision of network of DFDS system (compressed Air and water arrangement for creating fine mist/fog) 2. Dust extraction system with bag filter and stack arrangement in both screen house. 3. Equipment and conveyors are situated in closed house and gallery	Enhancement in the EMP including DFDS, dust extraction with bag filter & stacking, conveyor etc.
9.	Green Cover	Located at Staggered places, hence maintaining green	Green Cover planned all around the	Green Cover around the Crushing &

EAC noted the submission of the PP and enquired about change in pollution load due to project activities in the context of variations in configuration of crushing and screening facilities in the project. PP submitted that a pollution load assessment study has been conducted by M/s MECON Limited. Based on the findings of the air quality modelling, it has been observed that the proposed integrated fixed crushing and screening unit results in a significant reduction in peak concentrations of air pollutants when compared to the existing multiple mobile crushing and screening units. The proposed fixed plant, with a capacity of 2000 TPH, offers operational advantages owing to its compact and continuous design, which allows for better operational efficiency and environmental control. The design incorporates effective pollution control measures such as enclosures for all systems, a Dry Fog Dust Suppression (DFDS) system, and additional dust extraction through bag filters, leading to improved dust management. The study indicates that a reduced pollution load would be achieved through this arrangement, with estimated decreases of 0.15 kg/hr for PM₁₀, 0.03 kg/hr for PM_{2.5}, 0.01 kg/hr for SO₂, and 0.86 kg/hr for NO.

EAC noted the submission of the PP and study by M/s Mecon Ltd and opined that Central Crushing & Screening Plant of Capacity 2000 TPH (Central Processing Unit) being constructed by PP eliminates requirement of multiple equipments thereby reducing power requirements and also decreases emissions.

6. Based on aforesaid discussions and presentation made by the Project Proponent and the Consultant, the Expert Appraisal Committee (EAC), in 46th EAC meeting held on 25-26th June, 2025 under the provisions of the EIA Notification, 2006 and its subsequent amendments, reiterated its recommendation made vide minutes of 38th EAC meeting held during 27.12.2024 for the grant of Environmental Clearance for enhancement of Narayanposhi Iron & Manganese Ore mining with enhancement in production capacity of Iron Ore (ROM) from 6 to 10 MTPA & OB 4.216 MTPA with total excavation 14.216MTPA & existing capacity of Manganese Ore (ROM) 0.036MTPA & OB 0.223MTPA with total Excavation 0.259MTPA along with Mobile Crushing & Screening Plant (400TPHx10 Nos & 250TPHx07 Nos), CPU 2000 TPH, Grinding & Beneficiation Plant 6.0MTPA for Mineral Processing & Slurry Pumping Station to transport Iron Ore Concentrate in the ML area 349.254Ha by M/s JSW Steel Ltd located at Sundargarh, Odisha and is subject to the specific conditions mentioned in the Minutes of 38th EAC Meeting held on 27th December 2024 along with certain specific conditions and also standard conditions applicable to Non-Coal mining projects (Annexure - I).

7. The details of the project as per the information submitted by the Project Proponent are enclosed as Annexure (II)

8. The Ministry has examined the proposal in accordance with the provisions of the EIA Notification, 2006 and its subsequent amendments. Based on the recommendations of the Expert Appraisal Committee, the Ministry hereby accords Environmental Clearance for the Narayanposhi Iron & Manganese Ore Mining Project, involving enhancement in production capacity of Iron Ore (ROM) from 6.0 MTPA to 10.0 MTPA, along with Overburden (OB) of 4.216 MTPA, resulting in total excavation of 14.216 MTPA. The project also includes the existing capacity of Manganese Ore (ROM) at 0.036 MTPA and OB of 0.223 MTPA, with total excavation of 0.259 MTPA by M/s JSW Steel Ltd, located in Sundargarh district, Odisha. This Environmental Clearance is subject to compliance with the specific conditions prescribed for this project in addition to the standard conditions applicable to non-coal mining and mineral beneficiation projects(Annexure I).

9. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006, as amended. It does not tantamount to approvals/consent/permissions etc. required to be obtained

under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

10. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

11. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

12. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.

13. General Instructions:

a. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/ SEIAA website where it is displayed.

b. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

c. The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/ forest / wildlife norms / conditions.

d. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

e. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

f. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

g. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

h. PP needs to comply the OM dated 24.07.2024 of MoEFCC, where it is stated that the plantation of

saplings shall be carried out in the earmarked 33% greenbelt area as part of the tree plantation campaign "EK Ped Ma ke Naam" (एक पेड़ माँ के नाम (and the details of the same shall be uploaded in the MeriLife portal (<https://merilife.nic.in>)).

14. This issues with the approval of the Competent Authority.

Copy To

- i. **The Secretary**, Ministry of Mines, Government of India ShastriBhawan, New Delhi.
- ii. **The Chief Secretary**, Government of Odisha, Secretariat, Bhubaneswar.
- iii. **The Secretary**, Department of Environment, Government of Odisha, Secretariat, Bhubaneswar.
- iv. **The Secretary**, Department of Mines and Geology, Government of Odisha, Secretariat, Bhubaneswar.
- v. **The Secretary**, Department of Forests, Government of Odisha, Secretariat, Bhubaneswar.
- vi. **The Secretary**, Department of Steel and Mines, Government of Odisha, Secretariat, Bhubaneswar.
- vii. **The Member Secretary**, Odisha Pollution Control Board, PariveshBhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012.
- viii. **The Deputy Director General of Forests (C)**, Ministry of Environment, Forest and Climate Change, Regional Office, A/3, Chandersekharpur, Bhubaneswar – 751023.
- ix. **The Chief Wildlife Warden**, PrakurtiBhawan, 5th floor, BDA Apartment, Nilakanthanagar, Nayapalli, Bhubaneswar-751012, Odisha.
- x. **The Chairman**, Central Pollution Control Board, PariveshBhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
- xi. **The Controller General**, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440001.
- xii. **The Director General**, Directorate General of Mines Safety, Hirapur, Dhanbad.826001
- xiii. **The Member Secretary**, Central Ground Water Board, Ministry of Agriculture and Irrigation, 12/1 Jam Nagar House, Shahjahan road, New Delhi 110011.
- xiv. **The District Collector**, Sundargarh District, Govt. of Odisha.
- xv. **Guard File.**
- xvi. **PARIVESH Portal.**

Annexure 1

Specific EC Conditions for (Mining Of Minerals)

1. Specific Conditions

S. No	EC Conditions
1.1	The PP shall submit an updated status report detailing the implementation of NEERI's

S. No	EC Conditions
	recommendations, along with the progress made on the installation of the slurry pipeline, within six months to RO, MOEFCC.
1.2	The PP shall enhance dependence on surface water sources and maximize the utilization of harvested rainwater to reduce dependency on groundwater resources.
1.3	Mining operation is not allowed in the undiverted forest land of 19.256 Ha. PP needs to erect closely spaced pillars to clearly demarcate the undiverted forest land in the lease area. PP should also construct fireline along undiverted forest land boundary in consultation with State Forest Department. All officers, supervisors, overman, mate, workers, operators, persons employed in the mine should be made aware about the undiverted forest land and its boundaries so that there is no mining operations in it.
1.4	On all the surface plans, production plans used in the project the diverted and undiverted forest areas should be clearly marked in different colours.
1.5	PP should follow the provisions of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 and the guidelines of FC Division of MoEFCC with regards to forest land involved in the project.
1.6	The natural water bodies and or streams which are flowing in and around the mine lease area should not be disturbed. PP shall consult state Water Resource department and SPCB regarding Nallah/Stream and follow their instructions. Implementation status of this condition should be communicated to Regional office, Bhubaneswar.
1.7	No blasting activities shall take place within 500 meters of schools and residential areas and within 500 meters of streams and rivers without permission from DGMS. However, one school is currently located just 80 meters away from UPL. The project proponent (PP) should explore for relocating the school within the lease area within one year to mitigate potential environmental and health impacts. No blasting activity shall be undertaken during school hours. Blasting can only be done on School Holidays. A copy of the EC shall also be provided to Principal of the School and District Education officer. Metal windscreen should be installed adjacent to the school for prevention against flyrocks and dust. Special permission from DGMS should be taken for carrying blasting activity near to the school.
1.8	PP needs to strictly adhere to MMR (Metalliferous Mines Regulation) / DGMS guidelines and recommendations of the study for undertaking blasting activity. PP shall take all steps so that ground vibration and air over pressure does not exceed the stipulations in MMR/ DGMS guidelines. PP shall ensure that there is no damage to the school, students and staff of the school.
1.9	PP shall submit the revised Wildlife Conservation Plan within two months to Ministry's Regional Office. The Project Proponent should follow-up the status of implementation on Wildlife Conservation Plan from the Forest Officials and the same shall be submitted to the Ministry's Regional Office in the six monthly compliance report.
1.10	The Project Proponent shall continue to monitor the air quality, noise level, water quality, water level and ground vibration during drilling and blasting at the edge of the mine, near the village, at crusher and at other sensitive receptors and such collected data shall be submitted quarterly to the Ministry's Regional Office.
1.11	The Project Proponent should install Continuous Ambient Air Quality Monitoring Stations

S. No	EC Conditions
	(CAAQMS) as per the scientific study and in consultation with CPCB/SPCB. The real time data so generated should be displayed digitally at entry and exit gate of mine lease area for public display and shall be linked to server of CPCB/SPCB.
1.12	The Project Proponent needs to use modern equipment's such as Camera Traps for ensuring presence and movement of wild animals in the study area in consultation with Wildlife Wing of Forest Department. Appropriate interventions shall be taken to minimise stress conditions for wild animals and to avoid Man-Animal conflict.
1.13	The Project Proponent shall take adequate measures to prevent the pilferage of mineral. The Project Proponent needs to implement all possible mitigation measures while transporting the mineral by Road. Tarpaulins covered trucks should be used to prevent spillage and emission of dust. Operators, Supervisors, contractor personal should be properly trained on environmental aspects of Ore/waste spillage and resultant air and water pollution. Record of above training of the personal, supervisor/officials should be submitted to Regional office of MoEF&CC.
1.14	The Project Proponent needs to install the permanent water sprinklers in addition to mobile water tankers along the haul road and the approach road. Further, 10 nos. of fog canon/mist sprayer of atleast 40 m throw shall be installed at various locations in the mine area. Effective dust suppression system shall also be adopted at other parts of the mining lease to arrest the fugitive dust emission. One fog cannon at each nearby school shall be installed along with metal wind screen.
1.15	PP shall carryout the blasting in a controlled manner such that the direction of the blasting should be perpendicular to the village/school and it must follow Metalliferous Mines Regulations, 1961 & DGMS guidelines in this respect so that safety is ensured and chances of ground vibration are minimized. PP should regulate blasting timings in consultation with DGMS ensuring that blasting is conducted outside of school hours.
1.16	Regional office of MoEF&CC shall do the site inspection of the project within one year of issuance of this EC to check whether the conditions of EC are being complied by PP and there is no adverse impact on the schools and nearby habitations. PP shall submit the site inspection report of the Regional office of Ministry to IA Divison and Compliance and Monitoring Divison of Ministry within one year from issuance of this EC.
1.17	The Project Proponent shall explore the possibility of using atleast 20% of Electric vehicles/CNG/Solar instead of diesel operation within three years.
1.18	The air pollution control equipment's like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at areas prone to air pollution. PP shall take necessary measures to avoid generation of fugitive dust emissions.
1.19	The Project Proponent should adopt the proper mitigation measures as proposed under EMP. The adoption of mitigation measures and monitoring of the same as proposed in the EMP shall be done under the supervision of the qualified environmental personnel. The implementation status of the same shall be submitted to the Ministry's Regional Office.
1.20	The Project Proponent should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground). A dedicated team to oversee environment management shall be setup at site which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality

S. No	EC Conditions
	parameters on routine basis instead of engaging environment monitoring laboratories/consultants. Any non-compliance or infringement should be reported to the concerned authority.
1.21	The Project Proponent shall conduct third party audit of compliance of EC condition at an interval one year and its report shall be submitted to RO, MoEF&CC.
1.22	The Project Proponent shall ensure the survival rate of 95% for planting the gap plantation and new plantation. The Project Proponent shall make the actual count on the saplings planted and its survival rate and in case of failure of achievement of 95% survival rate, action plan for achieving the target survival rate shall be submitted to the Ministry's Integrated Regional Office. Project proponent shall use saplings of 10 ft height for plantation (2500 plants/ha). PP shall make provision for drip irrigation to conserve the water. PP should plant fruit bearing trees along with Sal and allied species within the ML area.
1.23	To address the concerns raised by the public in the public hearing, PP should complete its public hearing commitments within 3 years. PP shall comply with all action plans made for public hearing concerns and make regular maintenance and record the progressive activity outcomes. The Project proponent shall ensure that the activities proposed under the public hearing is different from the CSR activities.
1.24	The Project Proponent needs to provide the good quality drinking water supply and also by laying network of pipelines to the local people at free of cost.
1.25	The Project Proponent shall provide the rainwater harvesting structure at mine offices and quarters/colonies to recharge the ground water.
1.26	PP needs to construct sedimentation ponds, check dam, gabion structures, retaining wall, garland drain etc to safeguard the Karo River and other natural Streams/Nallahs flowing in and around the Lease area.
1.27	The Project Proponent shall also organize employment-based apprenticeship/ internship training program every year with appropriate stipend for the youth and other programs to enhance the skill of the local people. The data should be maintained for the training imparted to the persons and the outcome of the training, for the assessment of the training program should be analyzed periodically and improved accordingly.
1.28	The Project Proponent should periodically monitor and maintain the health records of the mine workers digitally prior to mining operations, at the time of operation of mine and post mining operations. Regular surveillance shall be carried through regular occupational health check-up every year for mine workers. PP shall also organize medical camp for the benefit of the local people and also the monitor the health impacts due to mining activity.
1.29	The mobile water tankers should be used in the ML area for dust suppression and control. A logbook of water tankers should be maintained mentioning running hours, kilometre reading, maintenance hours of water tankers for each shift. PP shall use non-toxic chemicals for dust suppression in order to reduce the total water requirement.
1.30	The Project Proponent should take adequate measures to prevent the fly rock falling onto the nearby habitations and also the Project Proponent needs to set up a permanent monitoring in the nearby village to monitor the blast induced ground vibration and air over pressure.

S. No	EC Conditions
1.31	26. The Project Proponent needs to reduce the dependency upon the ground water, surface water (water from rivers, etc.) and it shall construct a water reservoir within the lease area for meeting its day-to-day water needs. An implementation report in this regard needs to be submitted to Ministry's Regional Office.
1.32	The Project Proponent shall ensure that the transportation shall not occur through village road.
1.33	Project Proponent needs to collect samples from upstream and downstream of Karo River and check its water quality including measurement of free silica concentration as per the DGMS standards and circulars/guidelines.
1.34	The mining lease holders shall, after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The implementation report of the above said condition shall be submitted to the Ministry's Integrated Regional Office.
1.35	Approval/permission of the CGWA/SGWA shall be obtained before drawing ground water for the project activities, if applicable. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.
1.36	Project proponent shall take necessary other clearances/permissions under various Acts and Rules if any, from the respective authorities / department.
1.37	PP shall consult State Forest Department and Chief Wildlife Warden about the additional steps to be taken for conservation and free movement of Elephants near the Mine Lease area.
1.38	PP shall organize community awareness programs in local villages to educate residents about co-existing with elephants and preventing human-wildlife conflicts. Emergency response teams comprising local community members and experts shall be established to handle Human-Elephant Conflict situations effectively.
1.39	PP should strictly follow the NEERI guidelines as given in Part-B.
1.40	<p>B. NEERI CONDITIONS</p> <p>Recommendation of CSIR-NEERI Report on "Carrying Capacity Study for Environmentally Sustainable Iron and Manganese Ore Mining Activity in Keonjhar, Sundargarh and Mayurbhanj districts of Odisha State"</p> <p>1) Department of Steel & Mines, Govt. of Odisha should prepare 5 years regional plan for annual ironore requirement from the state, which in turn shall be met from different mines/zones (e.g. Joda, Koira.) in the state. Accordingly, sustainable annual production (SAP) for each zone/minemay be followed adopting necessary environmental protection measures.</p>
1.41	2) The expansion or opening of new manganese ore mines may be considered only when the actual production of about 80% is achieved. Further, the mines that have not produced Mn ore for last two years and have no commitment in the current year as well; EC capacity in such cases may be reviewed. The Department of Steel & Mines, Govt. of Odisha shall submit the Annual Report on this issue to the MoEF&CC for further necessary action.

S. No	EC Conditions
1.42	3) Analysis of baseline environmental quality data for the year 2014 and 2016 indicates that existing mining activities appear to have little / no potential impact on environmental quality, except on air environment, which was mainly due to re-suspension of road dust. Therefore, all the working mines can continue to operate with strict compliance to monitoring of environmental quality parameters as per EC and CTE/CTO conditions of the respective mine, and implementation of suggested measures for control of road dust and air pollution. Odisha State Pollution Control Board has to ensure the compliance of CTE/CTO. Regional office of the MoEF&CC, Bhubaneswar shall monitor the compliance of the EC conditions. Regional office of the Indian Bureau of Mines (IBM) shall monitor the compliance of mining plan and progressive mine closure plan. Any violation by mine lease holder may invite actions per the provisions of applicable acts.
1.43	4) Considering the existing environmental quality, EC capacity, production rate, iron ore resource availability and transport infrastructure availability, the share of Joda and Koira sector works out to be 70% and 30% respectively for the existing scenario for the year 2015-16. However, for additional EC capacity, it can be 50:50 subject to commensurate infrastructure improvement (viz. SOTM, pollution free road transport, enhancement of rail network etc.) in the respective regions.
1.44	5) Continuous monitoring of different environmental quality parameters as per EC and CTE/CTO conditions with respect to air, noise, water (surface & ground water) and soil quality in each region shall be done. The environmental quality parameters should not indicate any adverse impact on the environment. Monitoring within the mines should be done by individual mine lease holders, whereas outside the mine lease area, monitoring should be done by the Govt. of Odisha through various concerned departments/ authorized agencies. Various monitoring/ studies should be conducted through national reputed institutes, NABET/ MoEF&CC accredited laboratories/organizations. The reports submitted by individual mine lease holders and study reports prepared by other concerned departments/agency for each of the regions should be evaluated and examined by SPCB/ MoEF&CC.
1.45	6) Construction of cement concrete road from mine entrance and exit to the main road with proper drainage system and green belt development along the roads and also construction of road minimum 300 m inside the mine should be done. This should be done within one year for existing mines and new mine should have since beginning. The concerned departments should extend full support; wherever the land does not belong to the respective mine lease holders. The Department of Steel & Mines, Govt. of Odisha should ensure the compliance and should not issue the Mining Permits, if mine lease holder has not constructed proper cement concrete road as suggested above.
1.46	7) In view of high dust pollution and noise generation due to road transport, it is proposed to regulate/guide the movement of iron and manganese ore material based on the EC capacity of the mines. Accordingly, ore transport mode has been suggested, as given below in Table. Table: EC Capacity based Suggested Ore Transport Mode (SOTM) Code EC Capacity Suggested Ore Transport Mode SOTM 1 ≥ 5 MTPA 100% by private railway siding or conveyor belt up to public railway siding or pipeline for captive mines and 70% for non-captive mines SOTM 2 Between 3 and < 5 MTPA Minimum 70% by public railway siding, through conveyor belt and maximum 30% by road - direct to destination or other public railway siding or above option SOTM 3 Between 1 and < 3 MTPA Minimum 70% by public railway siding and maximum 30% by road - direct to destination or by other public railway siding or above options

S. No	EC Conditions
	<p>SOTM₄ <1 MTPA 100 % by 10/17 Ton Trucks or above options</p> <p>It is mentioned by State Govt. of Odisha that currently about 45% of the iron ore is despatched using rail network and progressively it will be increased to about 60% by rail/slurry over a period of 5 years, taking into account time required to set up more railway sidings.</p> <p>In view of present ore transport practices and practical limitations, all the existing mines should ensure adoption of SOTM within next 5 years. New mines or mines seeking expansion should incorporate provision of SOTM in the beginning itself, and should have system in place within next 5 years.</p> <p>However, the State Govt. of Odisha shall ensure dust free roads in mining areas wherever the road transportation of mineral is involved. The road shoulders shall be paved with fence besides compliance with IRC guidelines. All the roads should have proper drainage system and apart from paving of entire carriage width the remaining right of way should have native plantation (dust capturing species). Further, regular maintenance should also be ensured by the Govt. of Odisha.</p> <p>Transportation of iron & manganese ore through river (jetty) to nearest Sea port (Sea cargo option) may be explored or connecting Sea ports with Railway network from the mines to be improved further so that burden on existing road and rail network and also pollution thereof can be minimized.</p> <p>Progress on development of dust free roads, implementation of SOTM, increased use of existing rail network, development of additional railway network/conveyor belt/ pipelines etc. shall be submitted periodically to MoEF&CC.</p> <p>Responsibility: Department of Steel & Mines, Govt. of Odisha; Time Period: 5 Years for developing railway/ conveyor belt facilities</p>
1.47	<p>8) Development of parking plazas for trucks with proper basic amenities/ facilities should be done inside mine. This should be done within one year for existing mines and new mines should have since beginning. Small capacity mines (in terms of lease area or production) not having enough space within the mine lease areas should develop parking plaza at a common place within the region with requisite facilities. Responsibility: Individual Mine Lease Holders; Time Period: 1 Year</p>
1.48	<p>9) Construction of NH 215 as minimum 4 lane road with proper drainage system and plantation and subsequent regular maintenance of the road as per IRC guidelines. Construction of other mineral carrying roads with proper width and drainage system along with road side plantation to be carried out. Responsibility: Department of Steel & Mines with PWD / NHAI Time Period: 2 Years.</p>
1.49	<p>10) Regular vacuum cleaning of all mineral carrying roads aiming at "Zero Dust Re-suspension" may be considered. Responsibility: PWD / NHAI/ Mine Lease Holders; Time Period: 3 months for existing roads.</p>
1.50	<p>11) Expansion of existing mines and new mines should be considered after conducting recent EIA Study (as per the provisions of EIA Notification 2006, as amended time to time) with proper justification on demand scenario for iron ore requirement and availability of pollution free transport network in the region. Responsibility: IBM, Department of Steel & Mines and MoEF&CC, New Delhi.</p>
1.51	<p>12) Mine-wise Allocation of Annual Production: In case the total requirement of iron ore exceeds</p>

S. No	EC Conditions																																															
	<p>thesuggested limit for that year, permission for annual production by an individual mine may bedecided depending on approved EC capacity (for total actual dispatch) and actual production rate ofindividual mine during last year or any other criteria set by the State Govt., i.e. Dept. of Steel & Mines.Department of Steel and Mines in consultation with Indian Bureau of Mines-RO should prepare inadvance mine-wise annual production scenario as suggested in Table, so that demand for ironore can be anticipated, and actual production/dispatch does not exceed the suggested annual production.</p> <p>Table: Allocation of Production to Different Mines for 5 Years (as per approved Mining Plan)</p> <table border="1"> <thead> <tr> <th rowspan="2">Mine/Lease</th> <th rowspan="2">EC Capacity (MTPA)</th> <th colspan="5">Suggested Annual Production (MT)</th> </tr> <tr> <th>2016-17 Yr 1</th> <th>2017-18 Yr 2</th> <th>2018-19 Yr 3</th> <th>2019-20 Yr 4</th> <th>2020-21 Yr 5</th> </tr> </thead> <tbody> <tr> <td>Mine 1</td> <td>X1</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Mine 2</td> <td>X2</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Mine 3</td> <td>X3</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Mine n</td> <td>Xn</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td>160 + dX</td> <td>105</td> <td>129</td> <td>153</td> <td>177</td> <td>201</td> </tr> </tbody> </table> <p>Next year allocation = Average of EC Capacity and Last year production</p>	Mine/Lease	EC Capacity (MTPA)	Suggested Annual Production (MT)					2016-17 Yr 1	2017-18 Yr 2	2018-19 Yr 3	2019-20 Yr 4	2020-21 Yr 5	Mine 1	X1						Mine 2	X2						Mine 3	X3						Mine n	Xn						Total	160 + dX	105	129	153	177	201
Mine/Lease	EC Capacity (MTPA)			Suggested Annual Production (MT)																																												
		2016-17 Yr 1	2017-18 Yr 2	2018-19 Yr 3	2019-20 Yr 4	2020-21 Yr 5																																										
Mine 1	X1																																															
Mine 2	X2																																															
Mine 3	X3																																															
Mine n	Xn																																															
Total	160 + dX	105	129	153	177	201																																										
1.52	<p>13) Expansion of Existing Mines having Validity up to 2020: In view of implementation of MMDR Act2015, wherein many non-captive mines are expected to be closed by March 2020, total iron oreproduction scenario has been. It is expected that the non-captive mines having validity till 2020 shalltry to maximize their production (limited to EC capacity) in the remaining period. Further, dependingupon availability of iron ore resources, these mines may also seek expansion of EC capacity. It maybe noted here that total EC capacity of existing 25 working mines having validity upto 2020 is about85 MTPA, whereas actual production from these mines has been only 44.677 MT (52.6%) during2015-16 and 57.07 MT (67.1%) during 2016-17. Also, it is expected that these mines would not evenbe able to achieve ore production as per existing EC capacity till March 2020. Therefore, theseexisting mines should go for production to the fullest extent to meet the requisite demand from theState. However, where EC limit is exhausted, application for expansion may be considered. Further,the EC process (i.e. Grant of TOR, Baseline data collection, Mining plan/scheme approval, Public hearing, preparation of EIA/EMP Report. Appraisal by the EAC and grant of EC) takes aboutone year time. Under such circumstances, it is suggested that further applications for grant of TOR orgrant of EC for expansion of production capacity of the mine should be considered for those existingmines, which have exhausted their capacity subject to consideration of all environmental aspects. Responsibility: Department of Steel & Mines and MoEF&CC, New Delhi.</p>																																															
1.53	<p>14) Sustained Iron Ore Production beyond 2020: Considering the implementation of MMDR Act 2015,total production of iron ore in Odisha State is anticipated to be about 111 MT during 2016-17(actual production was – 102.663 MT), 136 MT during 2017-18, 146 MT during 2018-19 and 146 MTduring 2019-20. Then there will be substantial drop in total production (to the tune of 73 MT during2020-21 onwards) due to closure of mines, which are valid up to 2020. Therefore, in order tomaintain operation/sustained growth of downstream industries, iron ore mining in the region needsto be continued at a sustainable rate. The State Govt. through Department of Steel and Minesshould initiate appropriate action to ensure continued availability of iron ore from the region, as persuggested sustainable annual production.</p>																																															
1.54	<p>15) Reserves Estimation–Mining Plan and Exploration: Appropriate actions (geo-technical investigationfor qualitative and quantitative resource estimation & other preparations for auction of</p>																																															

S. No	EC Conditions
	<p>mines), maybe initiated taken into account the existing working mines, and the mines which were operational at some point of time (but closed presently due to various reasons). The total iron ore reserves/resources available within the total lease area of each mine should be estimated by State Govt./NMET/ GSI (or any other approved agency) with respect to: (i) Total lease area of mine (surface), (ii) Maximum depth to which resources could be available, (iii) Resources below the groundwater table (if intersected), (iv) Reserves are to be estimated as per UNFC code with respect to quantity and quality (% Fe content), (v) Maximum mining rate and area for auction (after 2020) will be calculated based on total resources available and proposed life of mine leading to closure of mine in a stipulated time period.</p> <p>Responsibility: Department of Steel & Mines, IBM and GSI; Time frame: 1 year for the mines to be auctioned for next 2 years. The above mentioned organizations shall ensure the compliance with respect to timelines for implementations.</p>
1.55	<p>16) Depending upon availability of extractable iron ore resources within a mine, mining below the ground water table may be permitted after conducting necessary geological and hydro-geological study by GSI and requisite approval from the CGWB/CGWA (Central Ground Water Board/Authority). This can be explored at least in few mines on trial/pilot basis. Further, within a mine, it will be desirable to operate one pit at a time, and next pit should be opened after extracting maximum possible resources from the first pit, so that the exhausted pit can be used for back filling/storing of low grade iron ore. However, depending upon the quantity and/or quality of iron/manganese ore, other mine pits in the same mine lease may also be opened for sustainable scientific mining, as per approved mining plan/scheme of mining by IBM. The Department of Steel & Mines, Govt. of Odisha should initiate the pilot project so that minerals are fully utilized.</p>
1.56	<p>17) Commercial Utilization of Low Grade Ore: R&D studies towards utilization of low-grade iron ore should be conducted through research/academic institutes like IMMT, Bhubaneswar, NML, Jamshedpur, and concerned metallurgical departments in IITs, NITs etc., targeting full utilization of low-grade iron ore (Fe content upto 45% by 2020 and upto 40% by 2025). In fact, life cycle assessment of whole process including environmental considerations should be done for techno-economic and environmental viability. R&D studies on utilization of mine wastewater having high concentration of Fe content for different commercial applications in industries such as cosmetics, pharmaceutical, paint industry should also be explored. Responsibility: IBM, Dept. of Steel & Mines, Individual Mine Lease Holders.</p>
1.57	<p>20) Large and medium mine leases contribute to better implementation of reclamation and rehabilitation plans to sustain the ecology for scientific and sustainable mining. The small leases do not possess scientific capability of environmentally sustainable mining. Therefore, new mine leases having more than 50 ha area should be encouraged, as far as possible. This will ensure inter-generational resource availability to some extent. Responsibility: Dept. of Steel & Mines, Govt. of Odisha.</p>
1.58	<p>19) State Govt. of Odisha shall make all efforts to ensure exhausting all the iron & manganese ore resources in the existing working mines and from disturbed mining leases/zones in Joda and Koira region. The criteria suggested shall be applicable while suggesting appropriate lease area and sustainable mining rate. Responsibility: Dept. of Steel & Mines, Govt. of Odisha.</p>
1.59	<p>18) The mining activity in Joda-Koira sector is expected to continue for another 100 years, therefore, it will be desirable to develop proper rail network in the region. Rail transport shall not</p>

S. No	EC Conditions
	<p>only be pollutionfree mode but also will be much economical option for iron ore transport. The rail network and/orconveyor belt system upto public railway siding needs to be created. The total length of theconveyor belt system/ rail network to be developed from mines to nearest railway sidings by 11mines in Joda region is estimated to be about 64 km. Similarly, in Koira region, total length ofrail network/ conveyor system for 8 mines (under SOTM 1 & 2) is estimated to be around 95 km.Further, it is suggested to develop a rail network connecting Banspani (Joda region) and Roxyrailway sidings in Koira region. Responsibility: Dept. of Steel & Mines, Govt. of Odisha andConcerned Mines along with Indian Railways. Time Period: Maximum 7 years (by 2025). TheDepartment of Steel & Mines, Govt. of Odisha should follow-up with the concerned Departmentsand railways so that proposed proper rail network is in place by 2025.</p>
1.60	<p>21) Mining Operations/Process Related: (i) Appropriate mining process and machinery (viz. rightcapacity, fuel efficient) should be selected to carry out various mining operations that generateminimal dust/air pollution, noise, wastewater and solid waste. e.g. drills should either be operatedwith dust extractors or equipped with water injection system. (ii) After commencement of miningoperation, a study should be conducted to assess and quantify emission load generation (in termsof air pollution, noise, waste water and solid waste) from each of the mining activity (includingtransportation) on annual basis. Efforts should be made to further eliminate/ minimize generation ofair pollution/dust, noise, wastewater, solid waste generation in successive years through use of better technology. This shall be ensured by the respective mine lease holders. (iii) Variousmachineries/equipment selected (viz. dumpers, excavators, crushers, screen plants etc.) andtransport means should have optimum fuel/power consumption, and their fuel/power consumptionshould be recorded on monthly basis. Further, inspection and maintenance of all the machineries/equipment/ transport vehicles should be followed as per manufacturer's instructions/ recommendedtime schedule and record should be maintained by the respective mine lease holders. (iv) Digitalprocessing of the entire lease area using remote sensing technique should be carried out regularlyonce in 3 years for monitoring land use pattern and mining activity taken place. Further, the extentof pit area excavated should also be demarcated based on remote sensing analysis. This should bedone by ORSAC (Odisha Space Applications Centre, Bhubaneswar) or an agency of nationalrepute or if done by a private agency, the report shall be vetted/ authenticated by ORSAC,Bhubaneswar. Expenses towards the same shall be borne by the respective mine lease holders.Responsibility: Individual Mine Lease Holders.</p>
1.61	<p>22) Air Environment Related: (i) Fugitive dust emissions from all the sources should be controlledregularly on daily basis. Water spraying arrangement on haul roads, loading and unloading andat other transfer points should be provided and properly maintained. Further, it will be desirable touse water fogging system to minimize water consumption. It should be ensured that the ambient airquality parameters conform to the norms prescribed by the CPCB in this regard. (ii) The core zone ofmining activity should be monitored on daily basis. Minimum four ambient air quality monitoringstations should be established in the core zone for SPM, PM10, PM2.5, SO2, NOx and COmonitoring. Location of air quality monitoring stations should be decided based on themeteorological data, topographical features and environmentally and ecologically sensitive targetsand frequency of monitoring should be undertaken in consultation with the State Pollution ControlBoard (based on Emission Load Assessment Study). The number of monitoring locations may bemore for larger capacity mines and working in larger area. Out of four stations, one should beonline monitoring station in the mines having more than 3 MTPA EC Capacity. (iii) Monitoring in bufferzone should be carried out by SPCB or through NABET accredited agency. In addition, air qualityparameters (SPM, PM10, PM2.5, SO2, NOx and CO) shall be regularly monitored at locations ofnearest human habitation including schools and other public amenities located nearest to sourceof the dust generation as applicable. Further, 11 continuous air quality monitoring systems</p>

S. No	EC Conditions
	<p>may be installed in Joida and Koira regions and one in Baripada/ Rairangpur region. (iv) Emissions from vehicles as well as heavy machinery should be kept under control and regularly monitored. Measures should be taken for regular maintenance of vehicles used in mining operations and transportation of mineral. (v) The vehicles shall be covered with a tarpaulin and should not be overloaded. Further, possibility of using closed container trucks should be explored for direct to destination movement of iron ore. Air quality monitoring at one location should also be carried out along the transport route within the mine (periodically, near truck entry and exit gate). Responsibility: Individual Mine Lease Holders and SPCB.</p>
1.62	<p>23) Noise and Vibration Related: (i) Blasting operation should be carried out only during daytime. Controlled blasting such as Nonel, should be practiced. The mitigation measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented. (ii) Appropriate measures (detailed in Section 5.4) should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with earplugs/muffs. (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone. Further, date, time and distance of measurement should also be indicated with the noise levels in the report. The data should be used to map the noise generation from different activities and efforts should be made to maintain the noise levels within the acceptable limits of CPCB (CPCB, 2000) (iv) Similarly, vibration at various sensitive locations should be monitored at least once in month, and mapped for any significant changes due to successive mining operations. Responsibility: Individual Mine Lease Holders.</p>
1.63	<p>24) Water/Wastewater Related: (i) In general, the mining operations should be restricted to aboveground water table and it should not intersect groundwater table. However, if enough resources are estimated below the ground water table, the same may be explored after conducting detailed geological studies by GSI and hydro- geological studies by CGWB or NIH or institute of national repute, and ensuring that no damage to the land stability/ water aquifer system shall happen. The details/ outcome of such study may be reflected/incorporated in the EIA/EMP report of the mine appropriately. (ii) Natural watercourse and/or water resources should not be obstructed due to any mining operations. Regular monitoring of the flow rate of the springs and perennial nallas should be carried out and records should be maintained. Further, regular monitoring of water quality of nallas and river passing through the mine lease area (upstream and downstream locations) should be carried out on monthly basis. (iii) Regular monitoring of ground water level and its quality should be carried out within the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out on monthly basis. (iv) In order to optimize water requirement, suitable conservation measures to augment ground water resources in the area should be undertaken in consultation with Central Ground Water Board (CGWB). (v) Suitable rainwater harvesting measures on long term basis should be planned and implemented in consultation with CGWB, to recharge the ground water source. Further, CGWB can prepare a comprehensive plan for the whole region. (vi) Appropriate mitigation measures (viz. ETP, STP, garland drains, retaining walls, collection of runoff etc.) should be taken to prevent pollution of nearby river/other water bodies. Water quality monitoring study should be conducted by State Pollution Control Board to ensure quality of surface and ground water sources on regular basis. The study can be conducted through NABL/ NABET approved water testing laboratory. However, the report should be vetted by SPCB. (vii) Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated in ETP so as to conform to the discharge standards applicable. (viii) Oil and grease trap should be installed before discharge of workshop effluents. Further, sewage treatment plant should be installed for the employees/colony, wherever applicable. (ix) Mine lease holder should ensure that no silt originating due to mining activity is transported in the surface water course or any other water body. Appropriate measures for prevention and control of soil erosion and management of silt should be</p>

S. No	EC Conditions
	<p>undertaken. Quantity of silt/soil generated should be measured on regular basis for its better utilization. (x) Erosion from dumps site should be protected by providing geo-textile matting or other suitable material, and thick plantation of native trees and shrubs should be carried out at the dump slopes. Further, dumps should be protected by retaining walls. (xi) Trenches / garland drain should be constructed at the foot of dumps to arrest silt from being carried to water bodies. Adequate number of checkdams should be constructed across seasonal/perennial nallas (if any) flowing through the mine lease areas and silt be arrested. De-silting at regular intervals should be carried out and quantity should be recorded for its better utilization, after proper soil quality analysis. (xii) The water so collected in the reservoir within the mine should be utilized for the sprinkling on hauls roads, green belt development etc. (xiii) There should be zero waste water discharge from the mine. Based on actual water withdrawal and consumption/ utilization in different activities, water balance diagram should be prepared on monthly basis, and efforts should be made to optimize consumption of water per ton of ore production in successive years. Responsibility: Individual Mine Lease Holders, SPCB and CGWB.</p>
1.64	<p>25) Land/ Soil/ Overburden Related: (i) The top soil should temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long (not more than 3 years or as per provisions mentioned in the mine plan/ scheme). The top soil should be used for land reclamation and plantation appropriately. (ii) Fodder plots should be developed in the non-mineralised area in lieu of use of grazing land, if any. (iii) Overburden/ low grade ore should be stacked at earmarked dump site(s) only and should not be kept active for long period. The dump height should be decided on case to case basis, depending on the size of mine and quantity of waste material generated. However, slope stability study should be conducted for larger heights, as per IBM approved mine plan and DGMS guidelines. The OB dump should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles should be undertaken for stabilization of the dump. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Proper records should be maintained regarding species, their growth, area coverage etc. (iv) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from mine operation, soil, OB and mineral dumps. The water so collected can be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly de-silted, particularly after monsoon and should be maintained properly. Appropriate documents should be maintained. Garland drain of appropriate size, gradient and length should be constructed for mine pit, soil, OB and mineral dumps and sump capacity should be designed with appropriate safety margin based on long term rainfall data. Sump capacity should be provided for adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and de-silted at regular intervals. (v) Backfilling should be done as per approved mining plan/scheme. There should be no OB dumps outside the mine lease area. The backfilled area should be afforested, aiming to restore the normal ground level. Monitoring and management of rehabilitated areas should continue till the vegetation is established and becomes self-generating. (vi) Hazardous waste such as, waste oil, lubricants, resin, and coal tar etc. should be disposed off as per provisions of Hazardous Waste Management Rules, 2016, as amended from time to time. Responsibility: Individual Mine Lease Holders.</p>
1.65	<p>26) Ecology/Biodiversity (Flora-Fauna) Related: (i) As per the Red List of IUCN (International Union for Conservation of Nature), six floral species and 21 faunal species have been reported to be under threatened, vulnerable & endangered category. Protection of these floral and faunal species should be taken by the State Forest & Wildlife Department on priority, particularly in the mining zones, if any. (ii) The mines falling within 5-10 km of the Karo-Karampada Elephant corridor buffer need to take precautionary measures during mining activities. The forest and existing elephant corridor routes are to be protected and conserved. Improvement of habitat by providing</p>

S. No	EC Conditions
	<p>food, water and space for the elephants is required to be ensured to avoid Man-Elephant conflicts. Though as per the records of State Forest Department, movement of elephants in the Karo-Karampada elephant corridor within 10 km distance from the mines in Joda and Koira is not observed, the Forest Department shall further record and ensure that elephant's movement is not affected due to mining activities. (iii) All precautionary measures should be taken during mining operation for conservation and protection of endangered fauna namely elephant, sloth bear etc. spotted in the study area. Action plan for conservation of flora and fauna should be prepared and implemented in consultation with the State Forest and Wildlife Department within the mine lease area, whereas outside the mine lease area, the same should be maintained by State Forest Department. (iv) Afforestation is to be done by using local and mixed species saplings within and outside the mining lease area. The reclamation and afforestation is to be done in such a manner like exploring the growth of fruit bearing trees which will attract the fauna and thus maintaining the biodiversity of the area. As afforestation done so far is very less, forest department needs to identify adequate land and do afforestation by involving local people in a time bound manner. (v) Green belt development carried out by mines should be monitored regularly in every season and parameters like area under vegetation/plantation, type of plantation, type of tree species / grass species/scrub etc., distance between the plants and survival rate should be recorded. (vi) Green belt is an important sink of air pollutants including noise. Development of green cover in mining area will not only help reducing air and noise pollution but also will improve the ecological conditions and prevent soil erosion to a greater extent. Further, selection of tree species for green belt should constitute dust removal/dust capturing plants since plants can act as efficient biological filters removing significant amounts of particulate pollution. Thus, the identified native trees in the mine area may be encouraged for plantation. Tree species having small leaf area, dense hair on leaf surface (rough surface), deep channels on leaves should be included for plantation. (vii) Vetiver plantation on inactive dumps may be encouraged as the grass species has high strength of anchoring besides medicinal value. (viii) Details of compensatory afforestation done should be recorded and documented by respective forest divisions, and State Forest Department should present mine-wise annual status, along with expenditure details. (ix) Similarly, Wildlife Department is also required to record and document annual status of wildlife in the region and should identify the need for wildlife management on regional level. (x) Maintenance of the ecology of the region is prime responsibility of the State Forest and Wildlife Department. They need to periodically review the status and identify the need for further improvement in the region. The required expenditure may be met from the funds already collected in the form of compensatory afforestation and wildlife management. Further, additional fund, if required can be sought from DMF. Responsibility: Individual Mine Lease Holders and State Forest & Wildlife Department.</p>
1.66	<p>27) Socio-Economic Related: (i) Public interaction should be done on regular basis and social welfare activities should be done to meet the requirements of the local communities. Further, basic amenities and infrastructure facilities like education, medical, roads, safe drinking water, sanitation, employment, skill development, training institute etc. should be developed to alleviate the quality of life of the people of the region. (ii) Land outtees and land losers/affected people, if any, should be compensated and rehabilitated as per the national/state policy on Resettlement and Rehabilitation. (iii) The socio-economic development in the region should be focused and aligned with the guidelines/initiatives of Govt. of India/ NITI Aayog / Hon'ble Prime Minister's Vision centring around prosperity, equality, justice, cleanliness, transparency, employment, respect to women, hope etc. This can be achieved by providing adequate and quality facilities for education, medical and developing skills in the people of the region. District administration in association with mine lease holders should plan for "Samagra Vikas" of these blocks well as other blocks of the district. While planning for different schemes in the region, the activities should be prioritized as per Pradhan Mantri Khanij Kshetra Kalyan Yojna (PMKKKY), notified by Ministry of Mines, Govt. of India, vide letter no. 16/7/2017-M.VI (Part), dated September 16, 2015. Responsibility: District</p>

S. No	EC Conditions								
	Administration and Individual Mine Lease Holders.								
1.67	<p>28) Road Transport Related: (i) All the mine lease holders should follow the suggested ore transport mode (SOTM), based on its EC capacity within next 5 years. (ii) The mine lease holders should ensure construction of cement road of appropriate width from and to the entry and exit gate of the mine, as suggested in Chapter 10. Further, maintenance of all the roads should be carried out as per the requirement to ensure dust free road transport. (iii) Transportation of ore should be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore/dust takes place. Further, air quality in terms of dust, PM10 should be monitored near the roads towards entry & exit gate on regular basis, and be maintained within the acceptable limits. Responsibility: Individual Mine Lease Holders and Dept. of Steel & Mines.</p>								
1.68	<p>29) Occupational Health Related: (i) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects periodically. (ii) Occupational health surveillance program for all the employees/workers (including casual workers) should be undertaken periodically (on annual basis) to observe any changes due to exposure to dust, and corrective measures should be taken immediately, if needed. (iii) Occupational health and safety measures related awareness programs including identification of work related health hazard, training on malaria eradication, HIV and health effects on exposure to mineral dust etc., should be carried out for all the workers on regular basis. A full time qualified doctor should be engaged for the purpose. Periodic monitoring (on 6 monthly basis) for exposure to respirable minerals dust on the workers should be conducted, and records should be maintained including health record of all the workers. Review of impact of various health measures undertaken (at an interval of 3 years or less) should be conducted followed by follow-up of actions, wherever required. Occupational health centre should be established near mine site itself. Responsibility: Individual Mine Lease Holders and District Administration (District Medical Officer).</p>								
1.69	<p>30) Reporting of Environmental Sustainability Achievement: All the mines should prepare annual environmental sustainability report (ESR), highlighting the efforts made towards environmental protection with respect to different environmental components vis-à-vis production performance of the mine on monthly basis. The data collected as per EC and CTE/CTO conditions should be utilized to prepare the annual sustainability report. The mines performing high with effective environmental safeguards may be suitably recognized/ rewarded. "Star Rating Format" formulated by the Ministry of Mines along with environmental sustainability report may be used.</p>								
1.70	<p>31) Environmental Monitoring Requirements at Regional Level: Apart from strict compliance and monitoring by individual mine lease holder, there is a need for simultaneous monitoring in each of the regions by competent expert agencies under the guidance/ supervision of concerned regulatory agency. Details of the studies required to be done on regular basis (continuously for 5 years) through responsible agency (organization of national/state repute) and time frame are suggested in Table.</p> <p>Table: Suggested Environmental Monitoring Requirements and Action Plans at Regional Level.</p> <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Study Component/ Action Plan</th> <th>Responsibility</th> <th>Monitoring and Reporting Time Frame (Approx.)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Environmental Quality Monitoring with respect to Air, Water, Noise and</td> <td>SPCB</td> <td>Continuous Annually</td> </tr> </tbody> </table>	Sr. No.	Study Component/ Action Plan	Responsibility	Monitoring and Reporting Time Frame (Approx.)	1.	Environmental Quality Monitoring with respect to Air, Water, Noise and	SPCB	Continuous Annually
Sr. No.	Study Component/ Action Plan	Responsibility	Monitoring and Reporting Time Frame (Approx.)						
1.	Environmental Quality Monitoring with respect to Air, Water, Noise and	SPCB	Continuous Annually						

S. No	EC Conditions		
	<p>Soil Quality in each region (Joda, Koira and Baripada/Rairangpur) as per specified frequency shall be done by a third party (preferably Govt.) and/or laboratory approved/ recognized by NABET/ CPCB/ SPCB/ MoEF&CC. All the water bodies (rivers, nallas, ponds etc.) shall be monitored. National/State level research/ academic institutes may be involved initially for couple of years to streamline the activity. The report shall be brought out annually by June each year. The study shall be conducted in consultation with MoEF&CC-RO.</p>		
	<p>Installation of online ambient air quality monitor for PM10, PM2.5, SOx and NOx within the mine having more than 3 MTPA EC Capacity</p>	Respective Mine Lease Holders	Continuous Annually
	<p>Installation of online ambient air quality monitor for PM10, PM2.5, SOx and NOx in the Joda and Koira Region (total 11 locations).</p>	SPCB	Continuous Annually
2.	<p>Status of flora and fauna in each of the regions shall be assessed on annual basis. Changes, if any, taking place in the region shall be brought out clearly. The study shall be conducted in consultation with State Forest and Wildlife Department.</p>	State Forest & Wildlife Dept.	Annually in mining zone and once in 3 years in the region
3.	<p>Socio-economic study incorporating developments taking place in each of the region, CSR initiatives made by the mining companies shall be conducted on annual basis. Further, micro level developmental needs shall be clearly brought out in the report for each region. The study shall be conducted in consultation with district administration.</p>	Respective District Administration	Annually
4.	<p>A detailed hydro-geological study in each of the regions shall be conducted in an integrated manner in consultation with Regional Director, Central Ground Water Board. Accordingly, all project proponents shall implement suitable conservation measures to augment ground water resources in the area.</p>	SPCB	Once in 2 years
5.	<p>The State Govt. shall ensure</p>	Dept. of Steel	12 months for road

S. No	EC Conditions
	<p>construction and maintenance of dust free common roads/ appropriate rail network for transport of ore from mines to the consumer end.</p> <p>Construction and maintenance of dust free roads from respective mine to the main road</p> <p>Traffic/road inspection study addressing the condition of traffic/roads leading to different mines and connecting to different railway sidings shall be undertaken on annual basis.</p> <p>Further, detailed traffic study shall be undertaken on every 5 yearly basis to ensure adequacy of road/rail infrastructure in each of the regions. The study can be undertaken through national/ state level research/ academic institute (such as CSIR-CRRI, New Delhi).</p> <p>Assessment of land use/ land cover changes in each of the regions, with particular focus on mining areas, afforestation activities, variation in flowpath of various water bodies etc. using remote sensing data</p> <p>R&D Studies for utilization of low-grade iron ore</p> <p>The data so generated for the region should be made available on the website of Department of Steel & Mines and also at MoEF&CC website, so that it can be effectively utilized by Individual Mine Lease Holders for preparing EIA/ EMP reports. This will meet the requirement for separate one season baseline environmental quality data collection by the individual proponents, if the mine proposed is in the same study region. Further, MoEF&CC (through EAC) can also utilize the database available in evaluating the proposals for expansion of existing mines or new mines while granting ToR or EC to the mine, taking an holistic view of the region. State Govt. of Odisha should bring out an integrated environmental sustainability report for each of the regions (mainly for Joda and Koia region) incorporating ESR of individual mines and data collected in the region through various agencies, once in 5 years, to plan level of scientific and sustainable mining for the next 5 years.</p>
1.71	<p>32) Institutional Mechanism for Implementation of Environmentally Sustainable Mining: The present study is not a one-time study, but a process to ensure environmentally sustainable mining activities in the region on long term basis. Looking into the large-scale mining activities and long term perspective for mining vis-à-vis environmentally sustainable mining and upliftment of people of the region, there is a need to create an agency, who will integrate all the aspects relating to sustainable mining in the region on long term basis. It could be a SPV of Govt. of Odisha or a cell within the overall control and supervision of Dept. of Steel & Mines, with members from IBM, GSI, OSPCB, MoEF&CC-RO and other concerned Departments and Mine Owners (EZMA), District</p>

S. No	EC Conditions
	<p>Administration. It is found that the strong database available for the region needs to be taken into account to map and establish environmental quality of the region on daily, monthly, seasonal and annual basis. Further, the efforts and initiatives of the mines towards environmental protection as well as upliftment of the people of the region are required to be integrated, and a systematic plan at the block/regional level needs to be framed for the overall benefit of the local society, region, district, state and the country as a whole. It will be desirable to have proper environmental quality data management and analysis by NEERI or any other agency for next 5 years (six monthly compliance reports followed by field verification) ensuring sustainable mining practices in the region leading to an overall development of the region. District Mineral Fund should be utilized appropriately for various developmental activities/needs of the region. Further, an environmental sustainability report incorporating environmental status of region coupled with social upliftment may be brought out by SPCB or any other authorized agency on annual basis. This report can be used for supporting the regional EIA study, and also need for environmental quality monitoring by individual mine seeking environmental clearance for new mine/ expansion of mine, including public hearing. Since, outcome of the above study reports shall be in the overall interest of all the stakeholders (including local population) of the region, further planning for the region shall warrant cooperation and assistance of all the stakeholders (mine operators, industries, transporters, State & Central Government Offices, MoEF&CC, CPCB, SPCB, Dept. of Steel & Mines, IBM, IMD, NGOs and local people) in sharing the relevant data/information/reports/documents etc. to continuously improve upon the environmentally sustainable development plan for economic growth in mining sector as well as for improvement in quality of life of the people of the region.</p>

Standard EC Conditions for (Mining of minerals)

1. Statutory Compliance

S. No	EC Conditions
1.1	<p>The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.</p>
1.2	<p>The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.</p>
1.3	<p>This Environmental Clearance (EC) is subject to orders/ judgment of Honble Supreme Court of India, Honble High Court, Honble NGT and any other Court of Law, Common Cause Conditions as may be applicable.</p>
1.4	<p>The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred. PP needs to apply for transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to</p>

S. No	EC Conditions
	time.
1.5	The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
1.6	State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
1.7	A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
1.8	The Project Proponent shall follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area."
1.9	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of Schedule-I species in the study area).
1.10	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.11	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
1.12	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
1.13	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.
1.14	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.

2.

S. No	EC Conditions
2.1	The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/

S. No	EC Conditions
	protected against felling and plantation of such trees should be promoted.
2.2	The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.

3. Air Quality Monitoring And Preservation

S. No	EC Conditions
3.1	Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.
3.2	The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.
3.3	Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
3.4	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
3.5	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986. 9) The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120 each). covering upwind and downwind directions.
3.6	The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and

S. No	EC Conditions
	outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120 each).covering upwind and downwind directions.
3.7	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories. Monitor fugitive emissions in the plant premises.
3.8	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
3.9	The project proponent use leak proof trucks/dumpers carrying ore and other raw materials and cover them with tarpaulin.
3.10	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

4. Water Quality Monitoring And Preservation

S. No	EC Conditions
4.1	The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease including upstream and downstream. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.
4.2	In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
4.3	Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total

S. No	EC Conditions
	Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
4.4	Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
4.5	Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
4.6	Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.
4.7	The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.
4.8	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
4.9	The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
4.10	The project proponent shall practice rainwater harvesting to maximum possible extent.
4.11	Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
4.12	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
4.13	The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
4.14	Adhere to Zero Liquid Discharge
4.15	The project proponent shall install 24x7 continuous effluent monitoring system with respect to

S. No	EC Conditions
	standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
4.16	The project proponent shall provide the slime disposal facility with impervious lining and collection wells for seepage. The water collected from the slime pond shall be treated and recycled.

5. Noise And Vibration Monitoring And Prevention

S. No	EC Conditions
5.1	The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
5.2	The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.
5.3	The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

6. Noise Monitoring And Prevention

S. No	EC Conditions
6.1	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
6.2	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

7. Mining Plan

S. No	EC Conditions
7.1	The Project Proponent shall adhere to approved mining plan, inter alia, including, total excavation (quantum of mineral, waste, over burden, inter burden and top soil etc.); mining technology; lease area; scope of working (method of mining, overburden & dump management, O.B& dump mining, mineral transportation mode, ultimate depth of mining, concurrent reclamation and reclamation at mine closure; land-use of the mine lease area at various stages of mining scheme as well as at the

S. No	EC Conditions
	end-of-life; etc.).
7.2	The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEFCC and its concerned Regional Office.

8. Energy Conservation Measures

S. No	EC Conditions
8.1	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
8.2	Provide LED lights in their offices and residential areas.

9. Land Reclamation

S. No	EC Conditions
9.1	The Overburden (O.B.), waste and topsoil generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB / waste dumps / topsoil dump like height, width and angle of slope shall be governed as per the approved Mining Plan and the guidelines/circulars issued by D.G.M.S. The topsoil shall be used for land reclamation and plantation.
9.2	Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.
9.3	The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
9.4	Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.

10. Waste Management

S. No	EC Conditions
10.1	The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
10.2	Kitchen waste shall be composted or converted to biogas for further use.(to be decided on case to case basis depending on type and size of plant)

11. Transportation

S. No	EC Conditions
11.1	No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers. [If applicable in case of road transport].
11.2	The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

12. Green Belt And Emp

S. No	EC Conditions
12.1	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
12.2	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

13. Green Belt

S. No	EC Conditions
13.1	The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

14. Public Hearing And Human Health Issues

S. No	EC Conditions
14.1	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
14.2	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
14.3	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
14.4	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
14.5	Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.

15. Corporate Environment Responsibility

S. No	EC Conditions
15.1	The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.
15.2	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
15.3	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

S. No	EC Conditions
15.4	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
15.5	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
15.6	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest I wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

16. Miscellaneous

S. No	EC Conditions
16.1	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.
16.2	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
16.3	The project proponent 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, commencing the land development work and start of production operation by the project.
16.4	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
16.5	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
16.6	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
16.7	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

S. No	EC Conditions
16.8	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
16.9	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
16.10	The project proponent shall monitor the criteria pollutants level namely; PM10, S02, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
16.11	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
16.12	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponents website permanently.
16.13	The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
16.14	A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.
16.15	Concealing factual data failure to comply with any or submission of false/ fabricated data and of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
16.16	The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.
16.17	The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.
16.18	The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
16.19	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

S. No	EC Conditions
16.20	The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
16.21	In pursuant to Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Honble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the mining lease holder shall after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
16.22	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.

17. Corporate Environment Responsibility (Cer)

S. No	EC Conditions
17.1	The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.

Standard EC Conditions for (Mineral beneficiation)

1. Statutory Compliance

S. No	EC Conditions
1.1	The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. 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.
1.2	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
1.3	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.
1.4	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.5	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan

S. No	EC Conditions
	and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of Schedule-I species in the study area).
1.6	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
1.7	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
1.8	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

2. Air Quality Monitoring And Preservation

S. No	EC Conditions
2.1	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 04/06 Nos. Continuous Ambient Air Quality Station (CAAQMS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. (case to case basis small plants: Manual; Large plants: Continuous and their no's.)
2.2	The project proponent shall carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
2.3	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
2.4	Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.
2.5	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
2.6	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these

S. No	EC Conditions
	system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories. Monitor fugitive emissions in the plant premises.
2.7	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
2.8	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986. 9) The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to S02 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120°each). covering upwind and downwind directions.
2.9	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
2.10	The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to S02 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120°each). covering upwind and downwind directions.
2.11	Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.
2.12	Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/agglomeration.
2.13	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2.14	The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
2.15	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
2.16	The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.
2.17	The project proponent use leak proof trucks/dumpers carrying ore and other raw materials and cover them with tarpaulin.
2.18	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

S. No	EC Conditions
2.19	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
2.20	Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
2.21	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.
2.22	Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.
2.23	The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.
2.24	Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.
2.25	Water Sprinklers/Water mist system shall be installed near raw material yards, operational units and other strategic locations to control fugitive emissions from the plant.
2.26	The particulate matter emissions from the process stacks shall be less than 30 mg/Nm ³ and measures shall be undertaken as per the submitted action plan. Efficient Air monitoring equipment shall be installed.
2.27	Following additional arrangements to control fugitive dust shall be provided: a. Fog / Mist Sprinklers at all on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas. b. Proper covered vehicle shall be used while transport of materials. c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.

3. Water Quality Monitoring And Preservation

S. No	EC Conditions
3.1	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
3.2	The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.

S. No	EC Conditions
3.3	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
3.4	The project proponent shall provide the slime disposal facility with impervious lining and collection wells for seepage. The water collected from the slime pond shall be treated and recycled.
3.5	Adhere to 'Zero Liquid Discharge'
3.6	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
3.7	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
3.8	Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
3.9	The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
3.10	The project proponent shall practice rainwater harvesting to maximum possible extent.
3.11	The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
3.12	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
3.13	Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
3.14	Tyre washing facilities shall be provided at the entrance of the plant gates.
3.15	Water meters shall be provided at the inlet to all unit processes in the steel plants.
3.16	The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
3.17	The proposed project shall be designed as Zero Liquid Discharge Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. Suitable measures shall be adopted for sewage water handling to ensure no contamination of any kind of water body.

S. No	EC Conditions
3.18	All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains and catch pits to trap the run off material and shall be implemented as per the action plan submitted in EIA/EMP report.
3.19	Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.

4. Noise Monitoring And Prevention

S. No	EC Conditions
4.1	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
4.2	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
4.3	Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and amendments thereof, and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
4.4	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

5. Energy Conservation Measures

S. No	EC Conditions
5.1	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
5.2	Provide LED lights in their offices and residential areas.
5.3	Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
5.4	Restrict Gas flaring to < 1%.
5.5	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
5.6	Provide LED lights in their offices and residential areas.

6. Waste Management

S. No	EC Conditions
6.1	The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
6.2	Kitchen waste shall be composted or converted to biogas for further use.(to be decided on case to case basis depending on type and size of plant)
6.3	Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.
6.4	Kitchen waste shall be composted or converted to biogas for further use.
6.5	Used refractories shall be recycled as far as possible.
6.6	100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
6.7	The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/ . All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
6.8	A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
6.9	Solid waste utilization: a. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making. b. PP shall recycle/reuse solid waste generated in the plant as far as possible. c. Used refractories shall be recycled as far as possible.

7. Green Belt And Emp

S. No	EC Conditions
7.1	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
7.2	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

8. Water Quality Monitoring And Preservation In Case Of Beneficiation Plant

S. No	EC Conditions
8.1	Tailing management plan shall be implemented as included in EIA report.
8.2	Tailings from Iron Ore beneficiation plant shall be dewatered in filter press and no slime /tailing pond shall be permitted.

9. Public Hearing And Human Health Issues

S. No	EC Conditions
9.1	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
9.2	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
9.3	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
9.4	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
9.5	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
9.6	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.
9.7	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
9.8	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.
9.9	All the commitments made towards socio-economic development of the nearby villages shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC. PP shall adopt nearby villages and prepare and implement a robust plan to develop them into model villages in next 10 years.

10. Corporate Environment Responsibility

S. No	EC Conditions
10.1	The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.
10.2	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest I wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
10.3	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
10.4	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
10.5	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
10.6	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

11. Miscellaneous

S. No	EC Conditions
11.1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
11.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
11.3	44) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

S. No	EC Conditions
11.4	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
11.5	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
11.6	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
11.7	The project proponent 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, commencing the land development work and start of production operation by the project.
11.8	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
11.9	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
11.10	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
11.11	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.
11.12	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
11.13	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
11.14	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
11.15	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

S. No	EC Conditions
11.16	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
11.17	Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented
11.18	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
11.19	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
11.20	The project proponent 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, commencing the land development work and start of production operation by the project.
11.21	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
11.22	The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.
11.23	The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
11.24	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
11.25	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11.26	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
11.27	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
11.28	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by

S. No	EC Conditions
	furnishing the requisite data / information/monitoring reports.
11.29	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

12. Green Belt

S. No	EC Conditions
12.1	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.
12.2	Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.
12.3	Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

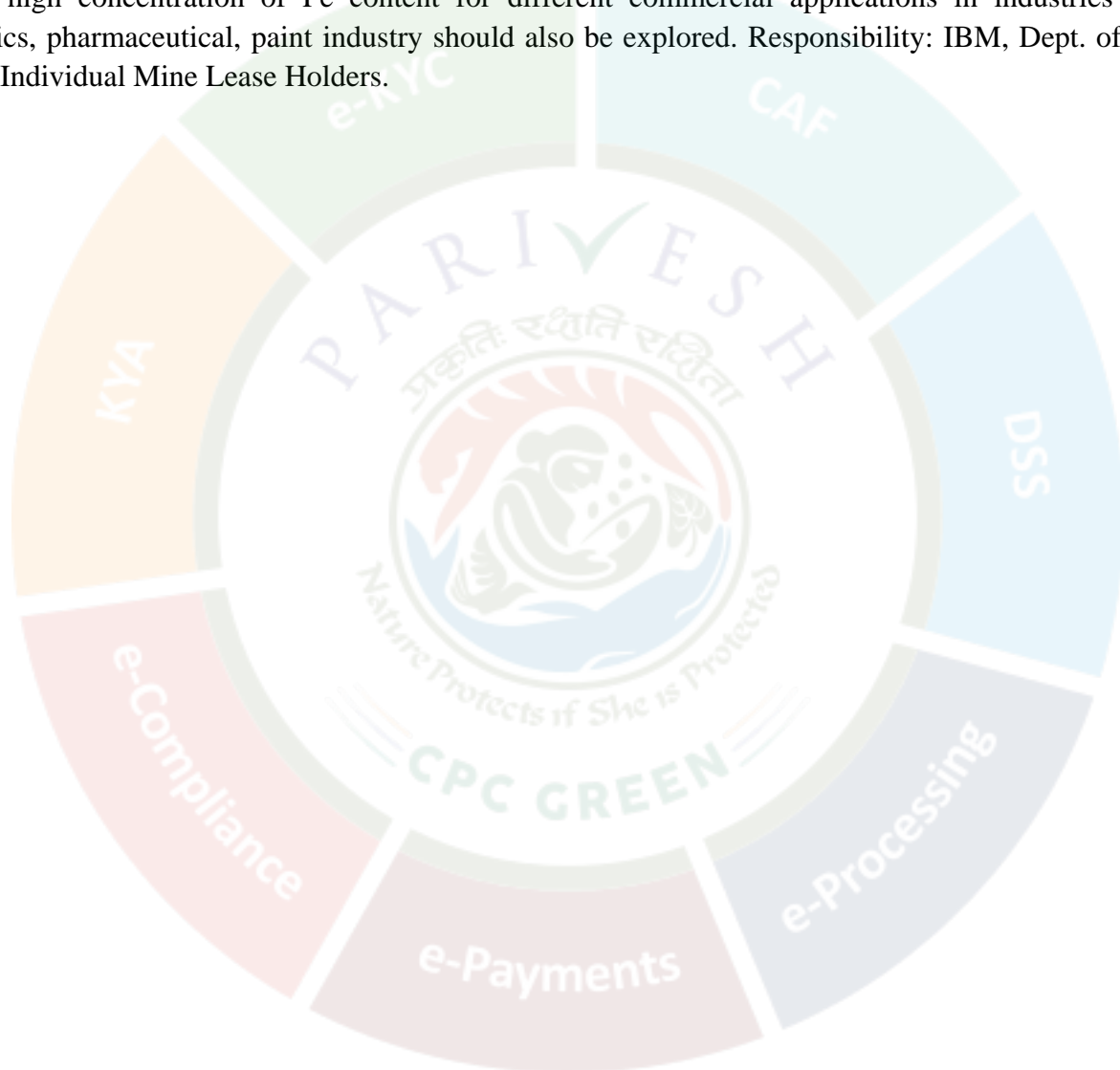
13. Environment Management

S. No	EC Conditions
13.1	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
13.2	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
13.3	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
13.4	Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.

Additional EC Conditions

1. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.

2. R&D studies towards utilization of low-grade iron ore should be conducted through research/academic institutes like IMMT, Bhubaneswar, NML, Jamshedpur, and concerned metallurgical departments in IITs, NITs etc., targeting full utilization of low-grade iron ore (Fe content upto 45% by 2020 and upto 40% by 2025). In fact, life cycle assessment of whole process including environmental considerations should be done for techno-economic and environmental viability. R&D studies on utilization of mine wastewater having high concentration of Fe content for different commercial applications in industries such as cosmetics, pharmaceutical, paint industry should also be explored. Responsibility: IBM, Dept. of Steel & Mines, Individual Mine Lease Holders.



Narayanposhi Iron & Manganese Ore mining with enhancement in production capacity of Iron Ore (ROM) from 6 to 10 MTPA & OB 4.216 MTPA with total excavation 14.216 MTPA & existing capacity of Manganese Ore (ROM) 0.036 MTPA & OB 0.223 MTPA with total Excavation 0.259 MTPA along with Mobile Crushing & Screening Plant (400TPHx10 Nos & 250TPHx07 Nos), CPU 2000 TPH, Grinding & Beneficiation Plant 6.0MTPA for Mineral Processing & Slurry Pumping Station to transport Iron Ore Concentrate in the ML area 349.254Ha [(ML Area: 347.008ha (As per DGPS)/ 349.254ha (As per ROR)] by M/s Jsw Steel Ltd located at Sundargarh, Odisha.

Details of the Project:

- i. The mine lease area is located between Latitude 21°54'46.07" N to 21°56'23.13" N Longitude 85°13'41.16" E to 85°14'56.56" E. The mine lease area falls under the Survey of India Toposheet No. Core Zone F45N1 (73G/1), F45N5 (73G/5) and Buffer zone: F45N1 (73G/1), F45N5 (73G/5), F45H8 (73F/8), F45H4 (73F/4) and falls in Seismic Zone-II.
- ii. JM EnviroNet Pvt. Ltd. has been engaged by PP as an accredited EIA Consultant organization recognized by NABET (QCI). The EIA-Consultant holds Certificate No. NABET/EIA/2326/RA 0308, dated 29.11.2023, which remains valid until 07.08.2026.
- iii. Accredited Consultant and certificate no. and Validity - JM EnviroNet Pvt. Ltd. Accredited EIA Consultant by NABET (QCI) Certificate No. NABET/EIA/2326/RA 0308, dated 29.11.2023 and same is valid up to 07.08.2026.
- iv. Category details:

Category of the Project	The existing mine falls under Category 'A' (>250 ha) project as per the Schedule of EIA Notification, 2006 & its subsequent amendments thereof; Project or Activity 1(a) 3 "Mining of Minerals" and 2(b) 3 Mineral beneficiation of Schedule having an area of [ML Area: 347.008 ha (As per DGPS)/ 349.254 ha (As per ROR)].
Schedule No.	Project or Activity 1 (a) - 3 for "Mining of Mineral" & 2 (b) (3) for Mineral Beneficiation
Mining lease Area (MLA) (In ha)	ML Area: 347.008 ha (As per DGPS)/ 349.254 ha (As per ROR)

General Conditions (if any)	Not Applicable
-----------------------------	----------------

v. ToR/EC Details:

a) ToR Details: The Project Proponent has obtained the ToR vide letter no. J-11015/62/2020-IA.II (M) dated 31.12.2020 and subsequent amendment vide letter no. J-11015/62/2020-IA.II (M) dated 18.02.2022.

b) EC Details:

Date of application	Proposal No/ File No	Consideration by EAC	Remarks
22.06.2024	IA/OR/MIN/482860/2024	35 th EAC Meeting (Non-Coal Mining) held during 3-4 th October, 2024	The Committee deferred the proposal and asked to submit the requisite information.
	IA/OR/MIN/482860/2024	38 th EAC Meeting (Non-Coal Mining) held on 27 th December, 2024	The EAC recommended the proposal for Environmental Clearance in the 38 th EAC (Non-Coal Mining) meeting held on 27 th December, 2024.
			ADS was raised to this proposal dated 19.03.2025 as "PP needs to obtain and submit a report on current status of installation of beneficiation plant in the project after site inspection by MoEFCC Regional Office, Bhubaneswar"
	IA/OR/MIN/482860/2024	43 rd EAC Meeting (Non-Coal Mining) held during 22 nd - 23 rd April, 2025	EAC deferred the proposal and raised ADS on 03.05.2025 for following requisite information:- i. PP needs to provide a

			<p>comparative analysis of the ongoing construction of crushing and screening facilities in comparison with earlier EIA EMP report (on the basis of which EC dated 18.06.2019 was issued) and Consent to establish dated 04.06.2021 and 04.12.2021 issued by OSPCB.</p> <p>ii. PP needs to explain whether there is any change in pollution load due to project activities in the context of variations in configuration of crushing and screening facilities in the project</p>
			PP has submitted the point-wise reply on 13.06.2025 against ADS raised on 03.05.2025.
	IA/OR/MIN/482860/2024	46 th EAC Meeting (Non-Coal Mining) held during 25-26 th April, 2025	Committee re-considered the proposal and deliberated in 46 th EAC Meeting.

vi. Details of Mine Lease in chronological manner:

S. No.	Prospecting License/ Letter of Intent (LoI)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral & (Major/ Minor)	Period of Grant	Granted by	Mine lease area in Ha

1.	Issuance of Letter of Intent in favor of JSW Steel Ltd. vide letter no. 2288/S&M/IV(Misc) SM-66/2016(Pt-I)	02.03.2020	Iron & Manganese Ore	03 years	Govt. of Odisha	ML Area 347.008 Ha (As per DGPS)/ 349.254 Ha (As per ROR)
2.	Issuance of Vesting Order in favor of JSW Steel Ltd. vide letter no. 4212/SM IV (B) SM-21/2020	30.05.2020	Iron & Manganese Ore	2 years	Govt. of Odisha	
3.	Permanent Vesting Order was issued in favor of JSW Steel Ltd.	15.02.2022	Iron & Manganese Ore	-	-	

S. No.	Details of grant of Mine Lease deed execution	Period of Grant		Name of the Mineral	Mine lease area in Ha
		From	To		
1	Mine Lease was granted & executed in favor of M/s. JSW Steel Ltd.	26.06.2020	25.06.2070	Iron & Manganese Ore	ML Area 347.008 Ha (As per DGPS)/349.254 Ha (As per ROR)
2.	Mine Lease was registered in favor of M/s. JSW Steel Ltd.	27.06.2020	26.06.2070	Iron & Manganese Ore	

vii. Land Use/Land Cover of the Mine Lease Area:

Private land	4.687 ha
Government land	55.648 ha
Forest land	257.451 Ha
Total Mining lease area (MLA), ha	ML Area 347.008 Ha (As per DGPS)/349.254 Ha (As per ROR)
Private land for crusher, workshop & other infrastructure outside the MLA	All the activities proposed within mine lease
Additional information (if any)	29.222 ha is ST Land

viii. Mining Plan details:

Mining Plan including Progressive Mine Closure Plan (approved by Indian Bureau of Mines/DMG)	Letter No.	RMP-2309/2024-25-IBM_RO_BBS
	Date	06.12.2024
	Mineral & (Major/Minor)	Major
	Mine Lease Area, Ha	ML Area 347.008 Ha (As per DGPS)/349.254 Ha (As per ROR)
	Validity	The approval has been given for mining proposal for the year 2025-26 to 2029-30 and are subject to the validity of the lease period
Additional information (if any)	The Approved Mining Plan was valid up to 31.03.2030. The review of the mining plan is submitted under rule 17(2) of MCR, 2016, for the financial year 2025-26 to 2029-30. The enhanced production proposal quantity of 10 million tonnes, will be done after obtaining the EC from the MoEF&CC. total forest area in the lease is 257.451 ha, out of which diverted forest area is 238.195 ha. Balance area i.e., is 19.256 ha have been applied for diversion, and it is proposed that no operations will be undertaken in the un-diverted Forest Land during this plan period.	
Mining Parameters	Quantitative Description	
Method of Mining	Opencast Fully Mechanized Method with Crushing, Screening, CPU and Beneficiation Plant (Proposed)	
Drilling/Blasting	Parameter	Description
	Bench Height	9m
	Bench Width	10 m for Iron Ore Zone 7 m for Manganese Ore Zone
	Depth of Blasthole	9.9m
	Burden	3m
	Spacing	4m

	Hole diameter	115m
	Powder Factor	5.4 Tonne/Kg
Geological Reserves	192.133 Million Tonnes Iron ore and 0.685 Million Tonnes Manganese Ore	
Mineable Reserves	157.62 Million Tonnes Iron ore and 0.65 Million Tonnes Manganese Ore	
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/Waste, MTPA)	Iron Ore (ROM: 10 Million TPA & OB: 4.216 Million TPA), Total Excavation: 14.216 Million TPA and Manganese Ore (ROM: 0.036 MTPA & OB: 0.223 MTPA), Total Excavation: 0.259 Million TPA	
Life of Mine	16 years for Iron Ore and 19 Years for Manganese Ore	
Mine Bench Height & Bench Width	Bench Height: 9m (Iron Ore Zone); 6m (Manganese Ore Zone) Bench Width: 10 (Iron Ore Zone); 7 m (Manganese Ore Zone)	
No. of Mine Benches	13 Nos. in Iron Quarry 4 Nos. in Mn Quarry	
Existing Depth, m bgl	The existing bottom RL in: 535 m	
Ultimate Depth of Mining, m bgl	420 m	
Ground Water Table, m bgl	Likely depth of water table is of 5 m (at RL545 m) general surface level (at RL550 m) in rainy season and 8m (at RL542 m) in dry season. Mn Quarry-5 has touched the ground water at 540m RL.	
Details of ground water intersection	Yes (Mn Quarry-5 has touched the ground water at 540m RL)	
Individual bench slope	75 ⁰	
Overall pit slope	37.5 ⁰ for Iron Ore zone and 31 ⁰ for Manganese Ore zone	
Details of existing/ proposed Crusher	Existing: Stationary crushing & screening plant: 1 x 350 TPH, Mobile crushing & screening plant: 1 x 150 TPH & 1 x 100 TPH, Mobile screening plant: 3 x 200 TPH, 4 x 150 TPH, 2 x 100 TPH, Mobile revolving screening plants- 1 x 10 TPH Proposed: Mobile Crushing & Screening Plant: (400 TPH x 10 & 250 TPH x 07), initially & same will be phased out after Central	

	Processing Unit (CPU): 2000 TPH is commissioned
Mineral Beneficiation	Proposed: 6.0 Million TPA Grinding & Beneficiation Plant
RoM output size	Fines 0-10mm; CLO 5-18mm,10-30mm, 10-40mm, 10-180mm or any other size as per market/business requirements
Transportation details including capacity of dumper/tipper, mode of transport and distance	Dumpers are being/will be used for ore transportation from mine to ore processing area, waste transportation to dump area and processed ore transportation from ore processing area to stacking yard. Initially the iron ore will be sent to JSW plants and other end users through Road/Railway/Sea-ways. After commissioning of Grinding & Beneficiation Plant it will be processed and transported through slurry Pipeline/Road/Railway/Pipe Conveyor.
Generation of Topsoil/OB & its Management during plan period & conceptual period	There is no top soil cover in the Iron Ore mineable area. The top soil cover from the Mn working quarry will be scrapped and stacked at the earmarked site. Total waste generation during plan period from the iron ore zone will be 8802600 cum and 250100 cum from manganese ore zone. OB is being & will be used for the backfilling of excavated area.
Generation of Mineral Rejects/Waste & its Management during plan period & conceptual period	Iron ore with <45% Fe (laterite, shale, BHJ/BHQ) and manganese ore processing generate significant waste, including 30% from beneficiation, 78% intercalated waste, and 10% Mineral Rejects, temporarily stored for future use. During Plan period mineral reject/ tailing will be generated 2.7 million cum.

ix. Water requirement:

Total water requirement	13,296 m ³ /day	Fresh water	2082 m ³ /Day- Ground Water & Dewatering water 11, 214 m ³ /Day – Surface water
		Treated water (Domestic)	70 KLD (treated through STP capacity 80 KLD)

Source	Surface water, ground water sources, rain water harvesting pond, borewell and from manganese pit
Permission for withdrawal/ intersection along with details of grant and its validity	Renewal of NOC from CGWA for Ground water withdrawal (980KLD) & for dewatering (1102KLD) was obtained vide NOC No. CGWA/NOC/MIN/REN/2/2024/10057 was obtained dated 17.10.2024 and same is valid up to 18.01.2026. Permission regarding surface water withdrawal for 4,000 m ³ /hr (96,000 m ³ /day) has been obtained by the Department of Water Resources, Odisha dated 28.11.2023.
Additional information (if any)	Total water requirement will be 539 cum/hr for beneficiation/Grinding & Slurry Pumping. Further, for domestic consumption it has been planned to utilise ~15 cum/hr of water. Therefore, total water requirement will be 554 m ³ /hr (13, 296 m ³ /day) and will be met from surface water, ground water sources, rain water harvesting pond, borewell and from manganese pit.

- x. Nearest village/town/ highway/interstate boundary/railway station/water bodies/monument/ forest

Particular	Particular's Name	Distance & Directions
Village	Village Kashira	~0.3 km in East Direction
Town/City	Barbil	~26 km in NE direction
Highway	NH-215 (Earlier known as NH-520)	Passing through ML Area
Interstate Boundary	Odisha – Jharkhand	~ 8.9 km in North direction
Railway Station/Railway line	Barsuan	~15.2 km in SW direction
Water Bodies	Karo Nadi	Adjacent in NW direction and at some places overlapped to mine lease
	Suna Nadi	~6.7 km in East direction
	Orahari Nallah	Adjacent to ML boundary in SW direction
	Kashira Nallah	Flowing through ML Area
	Narayanposhi Nallah	Flowing through ML Area
	Samij Nallah	~3.8 km in NW direction
	Kalta Nallah	~4.0 km in NNW direction
	Teherei Nallah	~5.7 km in ESE direction
	Kalmang Nallah	~6.3 km in ENE direction
	Erua Nallah	~6.7 km in WNW direction
	Gera Nallah	~7.8 km in West direction
	Topadihi Nallah	~8.0 km in NE direction

	Khajurdihi Nallah	~8.0 km in SE direction
	Geria Nallah	~8.8 km in WSW direction
Forest	No Protected Forest within 10km radius.	
	Kathamala RF	within ML area
	Mendhamaruni RF	~1.0 km in East direction
	Karo RF	~1.3 km in North direction
	Tortha RF	~1.5 km in NW direction
	Reserved Forest	~2.8 km in South direction
	Sarakanda RF	~5.0 km in South direction
	Uliburu RF	~6.4 km in North direction
	Khajurdihi RF	~7.2 km in SSE direction
	Tholkabad RF	~7.8 km in North direction
	Karampada RF	~8.7 km in North direction
	Lakrhaghat RF	~8.7 km in NE direction
	Siddhamath RF	~9.3 km in ENE direction

xi. Presence of Environmentally Sensitive areas in the study area

Forest Land/ Protected Area/ Environmental Sensitivity Zone	Yes/ No	Details of Certificate/ Letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
Forest Land within the mine lease area and (if yes) status of Forest Clearance	Yes	<ul style="list-style-type: none"> Forest Clearance (Stage-II) for diversion of 244.327 ha including 184.591 ha of virgin land vide letter no. F. No.8-34/2000-FC (Vol-I) dated 15.11.2007 and vested to JSW FC (Stage II) transferred to JSW for 238.201 ha forest land vide No. FE-DIV-FLD-0067-2022-17050/FE&CC, dated 22.09.2022 Application for diversion of balance forest land i.e. 19.256 ha (including 1.014 ha safety zone) has been submitted vide Letter No. JSW/S/CO/2023/615, dated 27.09.2023. Presently, file is under process for Stage-I Clearance at MoEF&CC, New Delhi. NPV Amount of Rs. 19,30,88,250/- was submitted to the DFO by JSW Steel Ltd. Ex lessee paid Rs. 18,39,40,850/- as NPV. Total NPV paid = 37,70,29,100 /- (NPV has been paid for entire forest land by JSW) on 10.06.2020. 19.256 Ha of forest area is needed for Forest Clearance, which is currently in progress with the State Government. No mining activity is planned in the aforementioned forest area of

		19.256 Ha, as shown in the mining plan and mentioned on page no. - 4, 31, and 71 of the approved Mining Plan along with the Progressive Mine Closure Plan (2025-2030) by the Indian Bureau of Mines, Bhubaneshwar, vide letter no. RMP-2309/2024-25-IBM_RO_BBS, dated 06.12.2024. This information has also been conveyed to the EAC (NCM) through an email dated 06.12.2024.
National Park	No	Karo – Karampada Elephant Corridor (~7.7 Km from the Mine lease area in North direction)
Wildlife Sanctuary	No	
Elephant/Tiger Reserve	No	
Eco-Sensitive Zone(ESZ)/Eco-Sensitive Area(ESA)	No	-
Coastal Regulation Zone (CRZ)	No	-
Schedule-I species (Nos. and name of schedule-I species with authenticated letter)	Yes	Total 3 species i.e. <i>Elephas maximas</i> (Indian Elephant), <i>Melursus ursinus</i> (Sloth Bear) and <i>Python molurus</i> (Indian Python) of Schedule I according to (IWPA) Indian Wildlife Protection Act' 1972 was recorded in the study area during field survey. As per IWPA, Amendment Act, 2022 total 23 Schedule I Species were found viz. <i>Chameleon zeylanicus</i> (Indian Chameleon), <i>Elephas maximas</i> (Indian Elephant), <i>Melursus ursinus</i> (Sloth Bear), <i>Canis aureus</i> (Golden Jackal), <i>Vulpes bengalensis</i> (Bengal Fox), <i>Viverricula indica</i> (Small Indian Civet), <i>Felis chaus</i> (Jungle cat), <i>Hyena hyena</i> (Stripped Hyena), <i>Hystrix indica</i> (Porcupine), <i>Herpestes edwardsii</i> (Common Mongoose), <i>Python molurus</i> (Indian Python), <i>Ptyas mucosus</i> (Rat Snake), <i>Naja naja</i> (Indian Cobra), <i>Varanus bengalensis</i> (Monitor Lizard), <i>Natrix piscator</i> (Rat Snake), <i>Tyto alba</i> (Barn Owl), <i>Paradoxus hermaphorditus</i> (Common Palm Civet), <i>Pteropus melanotus</i> (Black flying fox), <i>Daboia russelii</i> (Russel's Viper), <i>Eryx johnii</i> (Sand boa), <i>Bubo bengalensis</i> (Indian Eagle Owl), <i>Dendrocopos mahrattelsis</i> (Yellow crowned woodpecker), <i>Gallus gallus</i> (Red Jungle Fowl).

Wildlife Conservation Plan	Yes	<p>The Wildlife Conservation Plan was prepared by the DFO and approved by the PCCF & Chief Wildlife Warden, Odisha, vide letter no. 988/CWLW-FDWC-FD-0126/2021, dated 31.01.2022. Budget proposed for conservation of the same is Rs. 746.173 Lakh.</p> <p>Following the implementation of the amended Wildlife Conservation Act 2022, the company have requested the Forest Department to revisit the SSWLCP, vide letter no. JSW/S/CO/2024/585, dated 10.09.2024. The Forest Department has issued a revised authenticated list of flora and fauna in line with amended WLA vide letter no. 10044/6F-(Mg.), dated 19.11.2024 and based on the same the process of revising the existing SSWLCP is in process.</p> <p>Divisional Forest Officer of Bonai Division, Sundergarh (District) has revised the Site-Specific Wildlife Conservation Plan with regard to Narayanposhi Iron Ore and manganese Mine of M/s. JSW Steel Ltd. The same is forwarded to PCCF (WL) and Chief Wildlife Warden through RCCF Rourkela for further approval.</p>
----------------------------	-----	--

xii. Greenbelt/Plantation details:

Proposed area for greenbelt/plantation and no. of saplings proposed	At conceptual stage, greenbelt/plantation will be carried out on 317.215 ha area. Nos of saplings at conceptual stage 793038 @ 2500/ha
Budget for greenbelt & plantation till the end of life of mine.	Rs. 15.86 Crore
Budget for nursery	Rs. 30.82 Lakh
Details of existing plantation and its survival rate	At present, 32.17 ha area had been covered under the greenbelt/plantation with 80425 nos of saplings Survival Rate 90%.
No. of tree cuts in the mine lease area and compensatory afforestation	NA
Particulars for greenbelt/plantation	Area covered (In Ha)
7.5 m barrier & non-mineralized zone	40.611

50 m safety zone of nallah, roads, electric lines	
500 m safety zones of nearest habitation villages	-

xiii. Baseline detail:

Baseline Data (Air / Water / Noise / Soil / Hydro geological study/ Traffic Study/ others)	
Period of baseline data collection	Dec., 2023 to Feb., 2024
Season(Summer/Pre-monsoon/Post-monsoon/Winter)	Winter Season
Predominant Wind direction (From)	North West
Ambient Air Quality (no. of locations) and results	10
Noise level (no. of locations) and results	10
Water Quality (no. of locations) and results	Ground water: 08
	Surface water: 07
Soil Quality (no. of locations) and results	08
Hydro geological study and results	Detailed hydrogeology study has been carried out by Geo Climate Risk Solutions Pvt. Ltd. in June, 2023.

xiv. Public Hearing (PH) Details:

Advertisement for PH with date (name of major national daily and one regional vernacular daily newspaper)	National Level/Local Level: "The Times of India" & "The Dharitri" on 21.04.2022
Date of PH	23.05.2022 at 10:00 AM
Venue	Open field Infront of proposed Indoor Stadium, Dhublameda Village under Koira Block in the District of Sundargarh
Chaired by	Dr. Binod Bihari Dash, Regional Officer, SPCB Rourkela Shri Shiv Shankar Toppo, Additional District Magistrate, Sundargarh
Main issues raised during PH	Employment, Drinking Water Facility, Infrastructure, Education, Pollution, Plantation, Nearby Development, Medical Facilities etc.
Budget proposed for addressing issues raised during PH over 3 years	610 lakhs

xv. Details of CTE/CTO, Certified Compliance Report, Certified Production Details from the inception of the mine:

Particulars	Details of Letter along with date of grant and validity
Consent to Establish	Vide letter no. 536/IND-II-CTE 6207, dated 14.01.2019

Consent to Operate	Vide letter no. 4651/IND-I-CON-2258, Consent Order No. 2944, dated 30.03.2024 & same is valid up to 31.03.2026		
Certified Compliance Report and Inspection date	<p>Certified Compliance Report vide file no. 101-1040/18/EPE, dated 19.09.2024. Action Taken Report for partially complied conditions has been submitted to Regional Office, MoEF&CC, Bhubaneswar on 24.09.2024.</p> <p>Date of Inspection: 30.08.2024</p> <p>Again, site visit of the RO, MoEFCC, Bhubaneswar was done on 26.03.2025 with reference to the ADS raised on dated 19.03.2025. After inspection, the report was prepared and submitted to the MoEFCC, vide File No. 101-1040/18/EPA, dated 04.04.2025.</p>		
Certified Production Details from the inception of the mine (in tabular form against the EC capacity)	Period	Production in Tonnes	
		Iron Ore	Mn Ore
	2020-2021	4476524	496.518
	2021-2022	5443454	4752.28
	2022-2023	5296717	5191.404
	2023-2024	5627775	554.00
2024-2025	5846458	1610.0	

xvi. Rehabilitation & Resettlement (R&R):

R & R details	This is an existing mine and expansion will be carried out within existing mine premises.
---------------	---

xvii. Court case details:

Court Case, No and its present status	<p>A court case is pending against the Project at Odisha High Court with order no. WP (C) 24918/2020 regarding the refund of excess stamp duty paid during the time of registration of lease deed. Till now no order has been passed.</p> <p>As per the judgement of Hon'ble High court of Odisha dated 09.11.2020, it mention that: "The impunged levy of differential stamp duty paid by the petitioner-company on its mining lease deeds pursuant to demands dated 26.06.2020 shall be subject to final outcome of the writ petition".</p>
Undertaking by Project Proponent w.r.t court case	Project Proponent has submitted an undertaking with regards to the court cases.

xviii. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	PP has submitted the undertaking by way of notarized affidavit bearing no P072261 dated 15.04.2024 stating that the proposal does not involve violation of Ministry's OM dated 30.05.2018.
Undertaking by Project Proponent in EIA/EMP Report	An Undertaking by Project Proponent has been submitted along with EIA-EMP report.
Undertaking by Consultant in EIA/EMP Report	Consultant has submitted the undertaking vide letter dated 21.06.2024 for the EIA/EMP report.
Plagiarism Certificate	PP has submitted plagiarism certificate dated 21.06.2024

xix. Details of the Environmental Management Plan (EMP):

Activities	Capital cost (Crores)	Recurring cost (Lakhs/annum)
Air, Noise, Water, Greenbelt/ Plantation etc.	Rs. 33.91/- crore including Rs. 7.46 Crore for Wildlife Conservation Plan	4.52 Crore

xx. Details of project cost and employment:

Particular	(Rs. In Crore)
Total cost of EMP (Capital Cost of EMP + capital cost of Public Hearing)	Capital cost for EMP is Rs. 33.91 Crore including Rs. 7.46 Crore for Wildlife Conservation Plan and Budget proposed for addressing the issues raised during the Public Hearing: Capital Cost: Rs. 610 Lakh
Project Cost	Total cost of the project is Rs. 960 Crores
Employment (Nos)	Existing: 500, Additional: 452 & Total: 952

xxi. PP has submitted reply on 09.08.2024 against the Essential details were sought on 25.06.2024 as given below:

S. No.	EDS	Reply by Project Proponent
1.	The Project Proponent needs to submit the latest Certified Compliance Report (not a year older from the date of inspection) by the Ministry's Regional Office.	The project was monitored by the Regional Office of MoEF&CC at Bhubaneswar on 06.02.2023 and 07.02.2023 in line with the Certified Compliance Report for the expansion project. Based on the site inspection, a monitoring report was issued and ATR was sought by the IRO Bhubaneswar with some observations. The ATR submitted by JSW has undergone the due process of review, perusal and in turn certain clarifications were asked by the MoEFCC, New Delhi. In view of the above, it is evident that IRO Bhubaneswar, post its inspection has constantly reviewed and perused the compliance status

		<p>through evidential documents and site photographs. The last review of the compliance by IRO Bhubaneswar office was on 13.02.2024. Further, Jt. Secretary- MoEF&CC perused the compliance through personal hearing on dated 25.04.2024 and based on the deliberations and conclusions, JSW submitted required documents as concluding act.</p> <p>It is also submitted that on receipt of the cited observation through EDS as referred, clarifications explaining the case and request for perusal was made vide our letter dated 10.07.2024.</p> <p>The duration of this entire process should be exempted from the one-year time period from the date of site inspection, as stipulated in paragraph (iii) of part B of the OM dated 08.06.2024.</p>
B. PP has submitted point wise reply on 24.09.2024 against the Essential details sought on 23.09.2024.		
1.	Submission of Certified Compliance Report	Certified Compliance Report vide file no. 101-1040/18/EPE, dated 19.09.2024. Action Taken Report for partially complied conditions has been submitted to Regional Office, MoEF&CC, Bhubaneswar on 24.09.2024.

C. Project was considered in 35th EAC meeting held during 28 to 29th October, 2024 wherein Committee deferred the proposal. PP has submitted the point-wise reply on 27.11.2024 against the Additional details sought on 20.11.2024 as given below:

Point 1	The Project Proponent (PP) needs to submit a protection plan for villages and schools located within or adjacent to the ML area, ensuring their safety from any mining related activities.			
Reply	The nearby habitation of the Villages within 500 m from the ML boundary are the following: Village Orhauri, Harishchandrapur, Kusumidihi, Renglabeda and Segasahi. Habitation details nearby the ML Area			
	S. No.	Villages	Distance & Direction from ML Boundary	Distance & Direction from UPL
	1	Harischandrapur	~90 m in SW direction	~100 m form Manganese quarry and ~700 m from Iron Quarry in WSW direction

2	Rengalbeda	~110 m in NNE direction	~2.6 km from Mn quarry in NNE direction and ~270 m from Fe quarry in NW direction
3	Segasahi	~160m in ENE direction	~1.8 km from Mn quarry in ENE direction and ~181 m from Fe quarry in East direction
4	Kusumdihi	~200 m in NNW direction	~1.5 km from Mn quarry in North direction and ~500 m from the Fe quarry in NNW direction
5	Orhuri	~220 m in SSW direction	~400 m from Mn quarry in SSW direction and ~680m from Fe Quarry SW direction

There is 1 school within mine lease and 2 schools are located within 500 m from the ML boundary.

S. No.	Particular	Details		
1.	Name of Village	Kashira	Harishchandrapur	Kusumdihi
2.	Name of School	Govt PS Narayanposhi	Govt. UPS Orhuri	Odisha Adarsha Vidyalaya
3.	Distance from Mine boundary	Within ML	200 m	350 m
4.	Distance from UPL	80 m	360 m	540 m

Protection Plan and safety measures for Villages and School:

- As per the micro-meteorological data, pre-dominant wind direction was observed from NW. Habitation of Village Harishchandrapur is located at ~90m distance in SW direction from ML boundary.
- Schools and Habitation of any Village will not be disturbed at any stage of mining.
- Mining is being/will be carried out as per the provisions outlined in Mining Plan Approved by Indian Bureau of Mines as well as by abiding to the guidelines of Director General Mines Safety (DGMS) and Conditions mentioned in DGMS guidelines will be followed strictly.
- Controlled blasting is being/will be adopted and optimum use of explosive energy is being/will be made by optimizing explosive charge per hole and per delay.
- NONEL and bottom hole initiation system is being/will be used to control ground vibrations, noise & fly rocks.

	<ul style="list-style-type: none"> • Provision of monitoring of each blast is being/ will be made so that the impact of blasting on nearby habitation & dwelling units and schools is ascertained. • The blasting is being done in such a way that no damage is cause to residential houses. • Controlled blasting is being/will be carried out to reduce air blast and peak particle velocity in order to control effect of vibration in the nearby habitation and school. • The drilling, charging, stemming and blasting operations are being/will be carried out under direct personal supervision of Manager/Asst. Manager. He maintains the records of blasting parameters for every blast. • Main haulage road in the mine is being/shall be provided with permanent water sprinklers and other roads is being/ shall be regularly wetted with water tankers fitted with sprinklers. Crusher and material transfer points are being/ shall invariably be provided with bag filters or dry fogging system. • All measures are being/will be adopted to control fugitive dust emission during mining operation and to ensure no impact on nearby habitats and schools. • For conducting blasting for mining operations, proper vibration studies are being/shall be carried out well before approaching such habitats or other buildings to evaluate the zone of influence and impact of blasting on the neighbourhood. Blasting is being/will be done within the permissible distance from habitation as permitted by DGMS. • No mining operations are being /will be carried out within 50 meters of public works such as public roads and buildings or inhabited sites. • A bund will be made around the habitation area. • People will be notified in advance when noisy work is to be done to limit their exposure, further sign-post also will be for noisy areas. • The ambient Air Quality Monitoring is being/will be done in the core as well as buffer zone of the ML area. There are 03 nos. of online CAAQMS and 4 nos. of manual monitoring stations located in the buffer zone. Records of the monitoring are being maintained properly. • Beneficiation Plant for Mineral Processing will be based on latest technology comprising Drum scrubbers, double deck wet screens, jigs, dewatering screens, thickening cyclones, Thickener, Filter press, Hence, no major impact on air quality will arise due to processing plant. • A thick plantation is being proposed in over the bund and Village safety zone to control dust emissions and noise.
--	--

	<ul style="list-style-type: none"> • Green belt along the 7.5m mine lease periphery and plantation on dump and along the nallah is being/ will be carried out. • Plantation around schools and residential areas will be carried out. • Regular monitoring of air and noise levels at the project boundary and nearby sensitive locations. • Appropriate protective measures are/will be implemented based on the monitoring results. • Ensuring compliance with permissible standards set by regulatory authorities. <p>This detailed plan will be ensuring the safety and well-being of Villages and schools near the mining area.</p>
Point 2	PP is required to submit a comprehensive protection plan for the rivers and nallahs flowing within or adjacent to the ML area to prevent contamination and environmental degradation.
Reply	<p>Two seasonal nallahs viz. Narayanposhi and Kasira Nallah are flowing within the lease area which divide the whole lease into three parts from NE to SW. River Karo is flowing due North close to the Western boundary outside the lease area which constitutes the principal drainage system of the locality and collects surface run-off water through the seasonal nallahs. No waste water is being discharged due to mining activities. Also, the beneficiation process will not use any chemicals and hence there is no likelihood of any chemical contamination of water bodies due to the mining activities; Following protective measures are/will be adopted to control the surface run-off:</p> <ul style="list-style-type: none"> • River & nallah will not be disturbed due to mining. Mining will be carried out at 50m away from the river and nallah. • During monsoon, mine wash-off from pits are being/will be arrested by series of check dams proposed on the downstream side and silt settling ponds constructed at the lowest bench of the mine. • The check dams & check bunds are being/ will be de-silted well before monsoon season every year to ensure clear water to overflow. The de-silted material is stacked separately. • Guard walls and coco fibre fence have been made along the nala. Besides this, plantation has been carried out along the sides of nala. • Retaining wall & garland drains are constructed around the dumps & at strategic points of quarries. • The surface run-off from the external OB dumps is guided through sedimentation ponds and garland drains to the surface water course. It will prevent eroded material from reaching the main drainage/water course of the region. • Regular monitoring of surface water quality is being/will be carried out.

	<p>Therefore, it can be concluded that major part of the surface runoff from working areas is being channelized to in pit settling cum percolation ponds located at various strategic locations. The rest part is channelized through garland drain to percolation cum settling pits and check dams.</p> <p>Various protective measures viz. retaining walls, garland drains and settling cum percolation pond around the toe of dumps, blue dust stock yard, mineral reject stock, Top Soil stack, around RF area and NH-215; Check dams around Nallahs and dumps have been constructed to prevent pollution of nalas present within the lease and water bodies nearby to the mine site.</p>																					
Point 3	<p>PP must engage a reputed national institute to conduct blasting/vibration studies, including fly rock distances and air overpressure. Furthermore, PP should submit a mitigative plan to ensure the smooth passage of vehicles during blasting activities.</p>																					
Reply	<p>The Department of Mining Engineering at the National Institute of Technology, Rourkela conducted a scientific study on blast-induced ground vibration and submitted the report in June 2024. Copy of the same is submitted along with ADS Reply.</p> <p><u>Study on Air Over Pressure:</u></p> <p>Based on the study as mentioned in para 5.2 therein, AOP observed ranges between 94.04 dB and 136.54 dB. The measured air overpressure was plotted against cube root scaled distance [SD]. Relation between the cube root of scaled distance and sound pressure was studied and a governing relation is determined as:</p> $AOP = -0.0703 (D / Q^{1/3}) + 114.61$ <p>Where, AOP = Air Over Pressure (dB); D = Radial distance (m), and Q = Maximum charge per delay /kg</p> <p>There exists a report that suggests the different noise levels and their possible consequences.</p> <p><u>Noise level and its possible effect (Heck, 2014)</u></p> <table border="1"> <thead> <tr> <th>S.No.</th> <th>AOP (dB)</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>115</td> <td>Threshold of complaints</td> </tr> <tr> <td>2</td> <td>134</td> <td>US Bureau of mines recommended safe level of blasting</td> </tr> <tr> <td>3</td> <td>140</td> <td>Historical Proven safe level</td> </tr> <tr> <td>4</td> <td>151</td> <td>Occasional windows break</td> </tr> <tr> <td>5</td> <td>171</td> <td>General windows break</td> </tr> <tr> <td>6</td> <td>180</td> <td>Possible structure damage</td> </tr> </tbody> </table> <p>The above table shows that the sound level produced by blasting operations is within safe limits and would not affect human being adversely.</p> <p><u>Study on Fly Rocks</u></p> <p>In the trial blast carried out by the mines (mentioned at Para 5.5 and 5.6 of study report), it was observed that, the maximum distance travelled by those flying rocks of about 5.00 cm sizes were about 20 to 60 m from the blast</p>	S.No.	AOP (dB)	Description	1	115	Threshold of complaints	2	134	US Bureau of mines recommended safe level of blasting	3	140	Historical Proven safe level	4	151	Occasional windows break	5	171	General windows break	6	180	Possible structure damage
S.No.	AOP (dB)	Description																				
1	115	Threshold of complaints																				
2	134	US Bureau of mines recommended safe level of blasting																				
3	140	Historical Proven safe level																				
4	151	Occasional windows break																				
5	171	General windows break																				
6	180	Possible structure damage																				

	<p>patches. Those would not cause any harm as the area was secured during blasting operations.</p> <p>The mines have also implemented the technique of muffle blasting to reduce the scattering of fly rock further, as below.</p> <p>In the Narayanposhi mine, the mines used metal wire mesh with dimensions 1.8m x 1.2m and a mesh aperture of 10mm as well as tin sheets of dimensions 6m x 4m to cover the blast holes. The positions of these sheets were secured with one or two bags filled with locally available fines weighing over 35 to 50 kgs each.</p> <p><u>Mitigative Plan for Highway Commuters</u></p> <ul style="list-style-type: none"> • The blasting activity at present is concentrated in the area which is 300m away from the National highway. • Keeping in view the advancement of mining faces towards National highway, PP has applied for obtaining controlled blasting permission from DGMS vide application No- JSW/NP/ DGMS/ BBSR-II/0353/ 24-25, 10.09.2024. • All the blasting operations upon advancing closer than 300m from National Highway shall be carried out in accordance with the recommendation of scientific study and provisions of permission as would be granted by DGMS. • Additionally, a SOP is formulated and same is submitted along with ADS Reply, wherein at S. No. 6.11 it is envisaged to halt traffic before the firing, in consultation with NHAI by erecting suitable barriers and posting of security to ensure safety of commuters.
Point 4	PP is required to submit an action plan for the transportation of ore, in line with the NEERI recommendations, until the slurry pipeline is commissioned.
Reply	<p>At present, Narayanposhi Iron and Manganese Ore Mine has dispatched 5.54 Million TPA ore and the same was dispatched through rail/road/ ship mode.</p> <p>Compliance to NEERI conditions and improvement in infrastructure since 2018:</p> <p><u>1. Development of Road Network:</u></p> <p>NH-215 is passing through the lease area which is widened and made four lanes, is the main connecting road to all the railway sidings. In addition to this, other branch roads of Barbil & Joda sector connected to NH from railway siding is widened and concreted. These roads are also provided with paved shoulders, proper drainage system and green belt.</p> <p>Regular vacuum cleaning of all mineral carrying roads is done by road sweeping machine deployed by mines and also by Govt. agencies.</p> <p>Besides this, cement concrete road has been constructed from mine entrance/exit to the NH and wheel washing system is installed in the exit gate.</p> <p><u>2. Other measures to control dust:</u></p>

	<p>Iron Ore from mine are transported through tarpaulin covered trucks up to the nearest railway siding and port from where it is transported to user destination by railway wagons and ships respectively. The trucks are regularly monitored for the emission of the vehicle (PUC) to ascertain emission limits as per the pollution norms.</p> <p>Besides the existing iron ore transportation, additional 4 MTPA iron ore is proposed to be dispatched with available logistic infrastructures and following tentative incremental quantity by railway sidings is envisaged.</p> <table border="1"> <thead> <tr> <th>Narayanposhi</th> <th>Rail</th> <th>MTPA</th> <th>No of trucks/ day</th> <th>To & Fro</th> </tr> </thead> <tbody> <tr> <td rowspan="7">Towards Railway Siding 4 MTPA</td> <td>Jaroli</td> <td>0.64</td> <td>97</td> <td>194</td> </tr> <tr> <td>Banspani</td> <td>0.68</td> <td>103</td> <td>206</td> </tr> <tr> <td>BIL/ RMJC</td> <td>1.00</td> <td>151</td> <td>302</td> </tr> <tr> <td>Rakshi</td> <td>0.56</td> <td>85</td> <td>170</td> </tr> <tr> <td>Bimalgarh</td> <td>0.48</td> <td>73</td> <td>145</td> </tr> <tr> <td>Rengra</td> <td>0.36</td> <td>55</td> <td>109</td> </tr> <tr> <td>Barsuan</td> <td>0.28</td> <td>42</td> <td>85</td> </tr> </tbody> </table> <p>No of working days considered: 330 days, Weight of Truck considered: 20 Tonne</p> <p>For the incremental handling requirement and to supplement the existing capability of railways we have contributed 25 rakes to the existing rolling stocks under GPWIS and will add further as per need.</p>	Narayanposhi	Rail	MTPA	No of trucks/ day	To & Fro	Towards Railway Siding 4 MTPA	Jaroli	0.64	97	194	Banspani	0.68	103	206	BIL/ RMJC	1.00	151	302	Rakshi	0.56	85	170	Bimalgarh	0.48	73	145	Rengra	0.36	55	109	Barsuan	0.28	42	85
Narayanposhi	Rail	MTPA	No of trucks/ day	To & Fro																															
Towards Railway Siding 4 MTPA	Jaroli	0.64	97	194																															
	Banspani	0.68	103	206																															
	BIL/ RMJC	1.00	151	302																															
	Rakshi	0.56	85	170																															
	Bimalgarh	0.48	73	145																															
	Rengra	0.36	55	109																															
	Barsuan	0.28	42	85																															
Point 5	PP needs to revise its proposed water requirements, taking into account current local consumption and future water needs. PP needs to improve upon technology to reduce water consumption during processing of iron ore. PP needs to develop methodology to recycle maximum water.																																		
Reply	<p>The requirement of makeup water for beneficiation and slurry pumping earlier was planned for @553 m³/hr. Further technological development will be introduced and reduction in requirement of make-up water is aimed as @539 m³/hr (a saving of 14 m³/hr). The details are as narrated below: -</p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Water Requirement (m³/hr)</th> <th>Water Requirement (m³/Day)</th> <th>Source</th> </tr> </thead> <tbody> <tr> <td>Beneficiation & slurry pumping</td> <td>539</td> <td>12, 936</td> <td>2082 m³/Day- Ground Water & Dewatering water -</td> </tr> </tbody> </table>	Activity	Water Requirement (m ³ /hr)	Water Requirement (m ³ /Day)	Source	Beneficiation & slurry pumping	539	12, 936	2082 m ³ /Day- Ground Water & Dewatering water -																										
Activity	Water Requirement (m ³ /hr)	Water Requirement (m ³ /Day)	Source																																
Beneficiation & slurry pumping	539	12, 936	2082 m ³ /Day- Ground Water & Dewatering water -																																

Mining and Allied Activities	15	360	11, 214 m ³ /Day – Surface water
Total	554	13, 296	

Description	m ³ /Hr	m ³ /Day
Water Addition in Plant	3673	88, 152
Water recovery & recycle to plant	3134	75, 216
Water lost in tailing, production and evaporation losses	539	12, 936
Make-up water to plant	539	12, 936

Improvement:

- a. It is discussed with our consultant M/s. MECON that for reducing evaporation loss, the depth of water reservoir would be reduced by 1 m So that Surface area can be minimized. The evaporation loss would be reduced from 39m³/hr to around 30 m³/hr.
- b. All drainage would be made with coverings and would be channelized to main reservoir for re-use of water.
- c. Big size of filters with polypropylene filter cloths would be used for minimizing the moisture carrying by tailings. With this technological change moisture in tailing could be reduced to 20% as against the planned 23%. This will help reduce the water loss to 28m³/hr from 33m³/hr.
- d. The mine site has three recharge ponds with 5779.5 m³ capacity for pond 1, 2478.7 m³ capacity for pond 2 and 6789.7 m³ for pond 3, making it total 15,047.99 m³. Average annual rainfall is taken as 1300mm. Presuming that number of fillings will be 3 times in a year thus taking no. of days water available in water conservation structures is 120 days So, total estimated recharge from three ponds 81,258.5 m³ /year.
- e. Waste water generated from workshop is being treated using oil–water separator and treated water is being used in dust suppression & vehicle washing.
- f. Sewage waste generated from canteen, mine office & toilets is being disposed in soak pit via septic tank.
- g. Use of wetting agents is recommended to reduce water consumption.
- h. Re-use of water recovered from processing plant.
- i. Rain water harvesting from roof tops of buildings and other super structures for storage. The roof top rain water is collected and channelized to the recharge well in the camp area.

	<p>j. Suitable storm water drainage system along the roads is provided to dispose storm water effectively. The surface run-off collected in the storm water drains is channelized through a series of settling-cum-percolation ponds before discharged.</p> <p>k. Staggered trenches of 2m x 1m dimension are proposed to be constructed along the contours so that during sudden storm, good amount of run-off can be harvested which will maintain a good amount of soil moisture content.</p> <p>l. For effective harvesting of rain water from the valley in the northern part of the lease area, a recharge tank with overflow system is already provided.</p>								
Point 6	PP is required to submit an action plan to reduce diesel consumption, increase renewable energy use, and adopt electric vehicles within the ML area to align with sustainable practices.								
Reply	<p><u>1. Action Plan to Reduce Diesel Consumption</u></p> <p>➤ Total Diesel Consumption per tonne of Iron ore for FY 2023-24:</p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Specific Diesel Consumption (Litres per tonne of iron ore)</th> </tr> </thead> <tbody> <tr> <td>Mining Excavation</td> <td>0.68</td> </tr> <tr> <td>Mineral Processing and Dispatch</td> <td>0.67</td> </tr> <tr> <td>Total Diesel consumption</td> <td>1.35</td> </tr> </tbody> </table> <p>➤ It is proposed to construct a Crushing and Screening Plant of 2000 tph, which would be electrically operated. This will reduce the specific diesel consumption from 1.35 litres per tonne to 0.68 litre per tonne only, amounting to reduction of 6700 kilo litres per annum corresponding to 10 million tonne of iron ore production.</p> <p><u>2. Increasing Use of Renewable Energy</u></p> <p>➤ At present 50 KW of solar power system is installed an additional 50 KW installation is planned for completion by the end of this financial year.</p> <p>➤ 3 km of solar fencing has been installed to protect wildlife and reduce human-wildlife interactions.</p> <p>➤ In the Buffer Zone, 22 solar-powered borewells (equipped with overhead tanks, standposts, solar panels, and pipelines) have been installed, along with 50 solar streetlights in nearby communities, encouraging the use of clean energy.</p> <p><u>3. Adoption of Electric Vehicles within the Mining Lease</u></p> <p>➤ JSW Steel is a founding member of the EV100+ initiative, an international movement aimed at phasing out heavy, polluting vehicles.</p> <p>➤ Feasibility studies are underway to evaluate the suitability of electric trucks and loaders in JSW mines at Odisha in collaboration with M/s Propell Motor and M/s Sany India limited.</p> <p>➤ Possibility will be explored for deployment of electric operated heavy mining vehicles.</p>	Activity	Specific Diesel Consumption (Litres per tonne of iron ore)	Mining Excavation	0.68	Mineral Processing and Dispatch	0.67	Total Diesel consumption	1.35
Activity	Specific Diesel Consumption (Litres per tonne of iron ore)								
Mining Excavation	0.68								
Mineral Processing and Dispatch	0.67								
Total Diesel consumption	1.35								
Point 7	PP needs to obtain a certificate from the Department of Mines and Geology (DMG) confirming that no mining activity has been undertaken at the ML boundary (Safety Zone) on the northern side.								

Reply	A Certificate from the Department of Mines and Geology (DMG) stating that no mining activity has been undertaken at the ML boundary (Safety Zone) on the northern side. Copy of the same is submitted along with ADS Reply.																																	
Point 8	PP must submit a copy of the Stage-I Forest Clearance (FC) for 19.256 ha of forest land, along with the transfer of Stage-II Forest Clearance for 238.201 ha of forest land in its name.																																	
Reply	<ul style="list-style-type: none"> M/s AMTC the erstwhile lessee has obtained forest clearance over the entire forest area falling within the mining lease, barring 14.864 Ha as safety zone & Greenbelt, as per extant rule vide F.No. 8-34/2000-FC (Vol.-I) dated 15th Nov 2007. In 2020, upon getting the mining lease through auction process JSW got vested with the Forest Clearance which was granted to erstwhile lessee. Pursuant to amendment in MMDR and guideline issued by MOEF &CC transfer of Forest clearance vide No. FE-DIV-FLD-0067-2022-17050/FE&CC, dated 22.09.22 is made in the name of JSW over area of 238.201Ha NPV has been paid for the entire forest area and CA land also has been provided for the total forest area within the lease. Details of NPV and CA land is given below. <table border="1"> <tr> <td>NPV Paid by</td> <td>In Rs.</td> </tr> <tr> <td>By Ex-Lessee</td> <td>18, 39, 40, 850/-</td> </tr> <tr> <td>By JSW</td> <td>19,30,88,250/- (over entire forest land @ 7.5 lakhs/Ha)</td> </tr> <tr> <td>Total NPV</td> <td>37, 70, 29, 100/-</td> </tr> </table> <table border="1"> <thead> <tr> <th colspan="5">CA LAND STATUS OF NARAYANPOSHI</th> </tr> <tr> <th>S.N.</th> <th>Pattern</th> <th>Area (Ha)</th> <th>Date</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CA land provided by Ex-Lessee (virgin forest area)</td> <td>184.591</td> <td>20.08.2009</td> <td>Village Kusumtola of Banki range under Bonai Forest Division</td> </tr> <tr> <td>2</td> <td>CA land provided by JSW (Pre-80 broken)</td> <td>53.61</td> <td>29.05.2023</td> <td>Village Phulabadi of BJP range under Keonjhar Division</td> </tr> <tr> <td>3</td> <td>CA land provided by</td> <td>20.00</td> <td>14.03.2023</td> <td>Village Lephripada of Lephripada range</td> </tr> </tbody> </table>	NPV Paid by	In Rs.	By Ex-Lessee	18, 39, 40, 850/-	By JSW	19,30,88,250/- (over entire forest land @ 7.5 lakhs/Ha)	Total NPV	37, 70, 29, 100/-	CA LAND STATUS OF NARAYANPOSHI					S.N.	Pattern	Area (Ha)	Date	Location	1	CA land provided by Ex-Lessee (virgin forest area)	184.591	20.08.2009	Village Kusumtola of Banki range under Bonai Forest Division	2	CA land provided by JSW (Pre-80 broken)	53.61	29.05.2023	Village Phulabadi of BJP range under Keonjhar Division	3	CA land provided by	20.00	14.03.2023	Village Lephripada of Lephripada range
NPV Paid by	In Rs.																																	
By Ex-Lessee	18, 39, 40, 850/-																																	
By JSW	19,30,88,250/- (over entire forest land @ 7.5 lakhs/Ha)																																	
Total NPV	37, 70, 29, 100/-																																	
CA LAND STATUS OF NARAYANPOSHI																																		
S.N.	Pattern	Area (Ha)	Date	Location																														
1	CA land provided by Ex-Lessee (virgin forest area)	184.591	20.08.2009	Village Kusumtola of Banki range under Bonai Forest Division																														
2	CA land provided by JSW (Pre-80 broken)	53.61	29.05.2023	Village Phulabadi of BJP range under Keonjhar Division																														
3	CA land provided by	20.00	14.03.2023	Village Lephripada of Lephripada range																														

**Government of Odisha
Steel and Mines Department**

VESTING ORDER

No. 4212 /SM
IV(B)SM-21/2020

Dated the 30 May 2020


Whereas a mining lease of the following description, which was held by M/s Aryan Mining & Trading Corporation Pvt. Ltd. (hereinafter referred to as the previous lessee) with validity period upto 31.03.2020 has been auctioned and M/s JSW Steel Ltd., has been declared as the preferred bidder of the said mine.

Description of the Mining Block

- Name of Mineral(s) – Iron & Manganese
- Name of Mining lease - Narayanposhi Iron & Mn Block.
- Address/location of mining lease - Village Koira, Kashira and Kathamala RF under Koira Tahasil of Sundergarh district.
- Area of lease – 347.008 hecets (As per DGPS)/ 349.254 hecets(As per ROR).

And whereas, a letter of intent bearing no 2288 dated 02.03.2020 has been issued in favour of the preferred bidder for grant of mining lease for the above mentioned mining block;

And whereas, in terms of section 8B(2) of the MMDR Act, 1957 read with rule 9A(4) of the Mineral (Other than Atomic and Hydrocarbon Energy Minerals) Concession Rules, 2016 [herein after called the Rules'2016], the holder of the letter of intent for the said mining block shall be deemed to have acquired all valid rights, approvals, clearances, licenses and the like vested with the previous lessee.



Now therefore, the undersigned being the Nodal Officer for the State of Odisha having been nominated under rule 9A(1) of the Mineral (Other than Atomic and Hydrocarbon Energy Minerals) Concession Rules, 2016 [herein after called the Rules,2016], do hereby, pursuant to the provisions contained in rule 9A(2) of the Rules,2016 order that all the valid rights, approvals, clearances, licenses and the like vested in the previous lessee in respect of the aforementioned mining block are deemed to have vested in favour of the holder of the letter of intent on the same terms and conditions of every rights, approvals, clearances, licenses, and the like which vested with previous lessee.

Without prejudice to the generality of the provisions of section 8B(2) of the MMDR Act, 1957, the details of the valid rights, approvals, clearances, licenses, and the like held by the previous lessee and vested in favour of the holder of the Letter of Intent are given in the Annexure-I to this order.

This vesting order is valid for a period of two years from the date of execution of lease deed or till the date of getting fresh approvals, clearances, licenses, permits, and the like, whichever is earlier

(S. K. Popli)

Nodal Officer-cum-Special Secretary to Government

Memo No. 4213 / SM

Dated: 30 May 2020

Copy to alongwith Annexure-I forwarded to M/s JSW Steel Ltd, JSW Centre, Bandra Kurla Complex, Bandra (East), Mumbai- 400051 for information and necessary action. It is requested that one copy each of the documents mentioned in the Annexure-I may be collected from the office of the Director Mines, Odisha, Bhubaneswar during office working hours.

Memo No. 4214 / SM

Dated: 30 May 2020

Copy to alongwith Annexure-I forwarded to M/s Aryan Mining & Trading Corporation Pvt. Ltd., Aryan House, 8th Floor, P1- Hide Lane, Kolkata- 700073 for information and necessary action.

Memo No. 4215 / SM

Dated: 30 May 2020

Copy alongwith Annexure-I forwarded to Indian Bureau of Mines, Bhubaneswar/ MoEF & CC, 534, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi 110003/ MoEF & CC (FC Divison), Indira Paryavaran Bhawan, Aliganj, Jorbagh Road, New Delhi 110003/ SPCB, Parivesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar, Odisha, 751012/ Director General of Mines Safety, Chaibasa Regiona, Chaibasa, 833201 /Ministry of Water Resource, River Development and Ganga Rejuvenation, West Block-2, Wing 3, Sector-1, R.K. Puram, New Delhi-110066 for information and necessary action.

Nodal Officer

Memo No. 4216 / SMDate: 30 May 2020

Copy alongwith Annexure-I forwarded to Director of Mines, Odisha, Bhubaneswar for information and necessary action. He is requested to provide one copy each of the documents described in the Annexure-I to the authorized representative of the LoI holder with proper acknowledgement and forward a copy of acknowledgement to the Department for record.

Nodal Officer
30/5/20

Memo No. 4217 / SMDate: 30 May 2020

Copy alongwith Annexure-I forwarded to Collector, Sundergarh/ Deputy Director of Mines, Koira / DFO, Bonai for information and necessary action.

Nodal Officer
30/5/20

Memo No. 4218 / SMDate: 30 May 2020

Copy alongwith Annexure-I forwarded to Forest and Environment Department/ PCCF(Nodal), Bhubaneswar for information and necessary action.

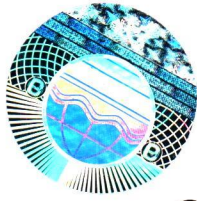
Nodal Officer
30/5/20

Name of the Block : Narayanposhi Iron & Manganese ore Block
LoI Holder : JSW Steel Ltd.
Area of the Lease : 349.254 Hects (As per ROR)
 347.008 hecets (As per DGPS)

SL No	Nature of approval clearance etc	Issuing officer/authority	Reference No./ Date of Issue
1	Mining Plan	Regional Controller of Mines, Bhubaneswar, Govt. of India	MSM/FM/40/ORI/BHU/2015-16, Dated 02.06.2016
2	EC	MoEF & CC, Govt. of India	J-11015/288/2008-IA.II(M), Dtd 18.06.2019
3	FC	MoEF & CC, Govt. of India,	F. No. 8-34/2000-FC (Vol-I), Dtd. 15.11.2007 over 244.327 hecets
4	Consent to Establish	State Pollution Control Board, Odisha	536/IND-II-CTE-6207, Dated 14.01.2019
5	Consent to Operate	State Pollution Control Board, Odisha	6785/IND-I-CON-2258, Dated 08.07.2019
6	Surface Right	District Collector, Sundargarh	Surface Right granted over 324.800 hecets
7	Deep Hole Blasting & use of HEMM	Directorate General of Mines Safety, Chaibasa Region, Chaibasa, Govt. of India	[29020/45/2014/RC(SEZ)] No. 2410, Dated 23.12.2015
8	Ground Water Withdrawal	Member Secretary (CGWA), Central Ground Water Authority, Govt. of India	CGWA/NOC/MIN/REN/1/2019/5586 Dtd. 09.10.2019

- Vesting of clearances/approvals/licences/permissions /rights as above does not have the effect of transfer of ownership of infrastructure established and the ore & minerals raised by the ex-lessee which shall be governed by the provisions of the rules 12(1)(gg) and 12(1)(hh) of the Minerals Concession Rules, 2016. However, on acquisition of such infrastructure from the ex-lessee and submission of evidence thereof, the new lessee may be vested with related clearances/ approvals etc at the relevant time.
- Vesting of Forest Clearance is subject to payment of NPV as prescribed in letter dtd. 31.03.2020 of Government of India, Ministry of Environment, Forest & Climate Change.

39/5/19



Tel : 2564033/2563924
 EPABX : 2561909/2562847
 E-mail: paribesh1@ospcboard.org
 Web site : www.ospcboard.org

OFFICE OF THE STATE POLLUTION CONTROL BOARD, ODISHA

[FOREST, ENVIRONMENT & CLIMATE CHANGE DEPARTMENT, GOVERNMENT OF ODISHA]

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit – VIII
 Bhubaneswar – 751 012, INDIA

By Speed Post
Through online

No. 19304 /

IND-II-CTE-6577

Date 4-12-2021 /

CONSENT TO ESTABLISH ORDER

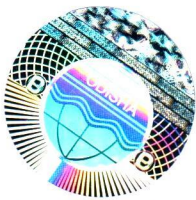
In consideration of the online application no. **3743157** for obtaining Consent to Establish for **Narayanposhi Iron & Manganese Ore Mine of M/s JSW Steels Ltd.**, the State Pollution Control Board is pleased to convey its Consent to Establish under section 25 of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 for **establishment of a Central Crushing & Screening Plant of capacity 2000 TPH (Central Processing Unit) within the Mining Lease area of Narayanposhi Iron & Manganese Ore Mine Of M/s JSW Steels Ltd., At –Koirā, Post- Koida, PS-Koida, Block-Koida, Tahasil- Koida** in the district of **Sundargarh, Odisha** with the following conditions.

GENERAL CONDITIONS

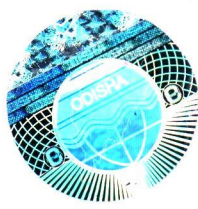
1. This Consent to Establish is valid for the raw materials, product, manufacturing process and capacity mentioned in the application form. This order is valid for five years.
2. The industry is to apply for grant of Consent to Operate under Section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 at least 3 (three) months before the commercial production and obtain Consent to Operate from this Board.
3. **This Consent to Establish is subject to statutory and other clearances from Govt. of Odisha and/or Govt. of India, as and when applicable.**

SPECIAL CONDITIONS:

1. This Consent to Establish is granted for the capacity as mentioned above and any expansion in the capacity, change or modification in the process addition, alternation any nature has to be undertaken with prior approval of the Board. For any change in the site or area fresh consent to establish has to be obtained from the Board.
2. Total production of sized ore and fines shall not exceed the approved production capacity of mines.
3. The mine shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.



4. The mine shall obtain NOC from CGWA for using of ground water for getting Consent to Operate of State Pollution Control Board, Odisha.
5. The proponent shall obtain permission from Department of Water Resources, Govt. of Odisha for drawl of ground / surface water.
6. Wheel wash facilities shall be provided to minimize transfer of mud from unpaved approach roads to main paved and/or public roads
7. Both dust suppression (dry fog) and extraction (bag filter) system shall be provided at all dust generating source such as crushing, screening & material transfer points etc. such that, particulate matter concentration in ambient air shall not be more than 1200 $\mu\text{g}/\text{m}^3$ at a distance of 25.0 ± 2.0 m from the source of fugitive emission in the predominant down wind direction as per MoEF&CC, Govt. of India notification No. G.S.R. 809(E), dated 04.10.2010.
8. The suction points of dust extraction system shall be provided at primary crusher discharge chute, screen, all transfer points, secondary crusher discharge chutes and any other dust generating sources. This system shall be connected to bag filters so that particulate matter emission from the stack shall not exceed 100 mg/Nm^3 as per MoEF&CC, Govt. of India Notification no - GSR. - 809 (E) dated 4th October 2010. Stack height for de-dusting unit shall be calculated as per above notification of MoEF&CC, Govt. of India i.e. $H = 74Q^{0.27}$, where H and Q are stack height in meter and Particulate Matter (PM) emission in ton/hr respectively.
9. Existing crushing and screening plants shall be removed once the Central Processing Unit is operational.
10. Adequate air pollution control measures shall be provided at mineral stack yard of Central Processing Unit. Net barrier of adequate height shall be provided around the mineral stack yard of Central Processing Unit depending on the height of the stack yard to prevent fugitive emission.
11. Pole mounted sprinklers shall be installed to control the fugitive dust generation at the stockyard as well as during transportation of vehicles.
12. The screening and crushing activity shall be carried out within the mining lease area only.
13. The crusher, screen and the conveyors shall be placed under cover.
14. **Bag filter shall be installed at vibrating screen and dry fog system shall be installed at other dust generating sources of the crushing and screening plant.**
15. All the product conveyor of the crushers shall discharge the product into a hopper and chute arrangement fitted with dust extraction and bag filter system. Chute shall be maximum 3 meter height from the ground level. Fixed auto sprinklers shall be provided
16. Fine products shall not be kept open. The ore fines shall be stacked properly and systematically with retaining wall at the toe to avoid washings during rain. Fine transportation shall be done in covered truck.



17. Adequate noise barriers shall be provided surrounding the crushing and screening plants to control noise pollution and avoid impact on wildlife due to operation of crushing and screening plants during night hours.
18. Online noise monitoring system shall be installed to monitor noise level during night hours.
19. Protective barriers shall be provided for the lights to prevent illumination towards the forest area during night hours.
20. Garland drains along with adequate nos. of settling pit shall be provided around the fines stock yard to control washout of fines from the stockyard along with surface runoff.
21. **The mine shall provide mechanized wheel washing system along with effluent treatment and recycling facilities for the material transport vehicles at the exit point of the mine.**
22. The operation of the mine in whose lease hold the Crushing & Screening Plant is to be located shall be governed under the provision of Air (PCP) Act, 1981, Water (PCP) Act, 1974 and Env. Protection Act, 1986. The mine shall not be operated without valid consent to operate of the Board.
23. No production activity shall commence prior to installation of all pollution control measures. In case it is found that the industry is operated without installation of adequate pollution control equipment, direction for closure shall be issued u/s 31 (A) of Air (PCP) Act, 1981 and / or u/s 33 (A) of Water (PCP) Act, 1974 as the case may be without any further notice.
24. The unit shall abide by the provisions of Environment (Protection) Act, 1986 and Rules framed thereunder.
25. The Board may impose further condition or modify the conditions are stipulated in this order during installation and / or at the time of obtaining consent to operate and may revoke this order in case the stipulated conditions are not implemented and / or information is found to have been suppressed / wrongly furnished in the application form.


MEMBER SECRETARY

To,

**The Dy. Managing Director
Narayanposhi Iron & Mn. Ore Mine of M/s JSW Steel Ltd,
JSW Centre, Bandra, Kurla Complex, East Bandra
East Mumbai.**



Memo No. 19305 /Date 4-12-2021 /

Copy forwarded to:

1. The Secretary, MoEF&CC, Govt. of India, New Delhi.
2. The Secretary Steels & Mines, Govt. of Odisha, Bhubaneswar
3. The Director, Directorate of Mines, Govt. of Odisha, Bhubaneswar
4. The District Magistrate & Collector, **Sundargarh.**
5. The Deputy Director of Mines, Joda, **Sundargarh.**
6. The DFO, **Sundargarh.**
7. The Regional Officer, SPC Board, **Rourkela.**
8. Consent to Operate Section, SPC Board, BBSR
9. Hazardous Waste Management Cell, SPC Board, BBSR
10. Copy to Guard file


CHIEF ENV. ENGINEER

o/c

**GOVERNMENT OF ODISHA
STEEL AND MINES DEPARTMENT**

ORDER

No. 1335 /SM, Dated
IV(B)SM-21/2020

15.02.2022

Whereas, in pursuance to the "invitation of bids for grant of Mining Lease for Iron ore" dated 06.12.2019 issued by the Government and subsequent auction held on dated 01.02.2020, M/s JSW Steel Ltd., the successful bidder has been granted a mining lease for Iron ore in respect of Narayanposhi Iron & Manganese ore block over an area of 347.008ha (as per DGPS) / 349.254ha (as per RoR) in village Koira, Kashira & Kathamala R.F. under tahasil Koira of Sundergarh district for the period of 50(Fifty) years as provided under section 8A, sub-section 2 of the Mines and Minerals Development and Regulation Act, 1957 vide order No.5425/SM dated 26.06.2020.

And whereas, the lease deed has been executed and registered by the lessee.

And whereas, the new lessee was vested with all the valid rights, approvals, clearances, licences and the like vested in the previous lessee for a period of 2 (Two) years vide vesting order No.4212/SM dated 30.05.2020, No.9815/SM dated 13.11.2020 & No.462/SM dated 13.01.2021.

And whereas, in the meantime section 8B of the MMDR Act, and Rule 9A of M.C. Rules, 2016 have been amended w.e.f. 28.03.2021 and 02.11.2021 respectively as noted below.

"8B (1); Notwithstanding anything contained in this Act or any other law for the time being in force, all valid rights approvals, clearances, licenses and the like granted to a lessee in respect of a mine (other than those granted under the provisions of the Atomic Energy Act, 1962 and the rules made thereunder) shall continue to be valid even after expiry or termination of lease and such rights, approvals, clearances, licenses and the like shall be transferred to and vested, subject to the conditions provided under such laws, in the successful bidder of the mining lease selected through auction under this Act."

"Rule 9A(1) in subrule (1), for "in respect of leases expiring under the provisions of sub-sections (5) and (6) of section 8A of the Act, within one week from the date of the notification of the minerals other than Atomic and Hydro Carbons Energy Minerals) Concession (Amendment) Rules, 2020" the words figure and letter, "for the purpose of issuing vesting order for transfer and vesting of all valid rights, approvals, clearances, licences and the like in accordance with sub section (1) of section 8B" shall be substituted,



Rule 9A (5); It shall be lawful for the new lessee to commence and continue mining operation on the land in which mining operations were being carried out by the previous lessee, after the execution of the lease deed till expiry or termination of mining lease granted."

And whereas, the Director of Mines vide letter No.10120/DM dated 22.12.2021 has proposed to issue the modified vesting and transfer order in respect of Narayanposhi Iron & Manganese mining lease.

Now therefore, in partial modification of the orders as communicated vide vesting orders No.4212/SM dated 30.05.2020, No.9815/SM dated 13.11.2020 & No.462/SM dated 13.01.2021, the undersigned being the Nodal Officer for the State of Odisha having been nominated under rule 9A(1) of the Mineral (Other than Atomic and Hydrocarbon Energy Minerals) Concessions Rules, 2016 (herein after called the Rules 2016), do hereby, pursuant to the provisions contained in rule 9A(2) of the Rules, 2016 issue this order that all the valid rights, approvals, clearances, licences and the like vested in the previous lessee in respect of the aforementioned mining block are now deemed to have been vested and transferred in favour of the holder of the letter of intent on the same terms and conditions of every rights, approvals, clearances, licences and the like which vested with previous lessee till expiry or termination of mining lease granted. ...


(Sri Deepak Mohanty)

Nodal Officer & OSD-cum-Special Secretary to Government

Memo No. 1336 / SM

Dated: 15.02.2022

Copy to forwarded to M/s JSW Steel Ltd, JSW Centre, Bandra Kurla Complex, Bandra (East), Mumbai-400051 for information and necessary action.

Memo No. 1337 / SM

Date: 15.02.2022

Copy forwarded to Director of Mines, Odisha, Bhubaneswar for information and necessary action.

Memo No. 1338 / SM

Date: 15.02.2022

Copy forwarded to Collector, Sundergarh / DFO, Bonai / Deputy Director of Mines, Koira for information and necessary action.

Memo No. 1339 / SM

Date: 15.02.2022

Copy forwarded to Forest and Environment Department / PCCF(Nodal), Bhubaneswar / Regional Controller of Mines, Indian Bureau of Mines, Bhubaneswar for information and necessary action.


Nodal Officer



Telephone: 0674 - 2301213, 2301248, 2302452, 2302453. E-mail: roez.bsr-mef@nic.in

File No. 101-1040/18/EPE

Date: 19.09.2024

To

Dr. Shruti Rai Bhardwaj,
Scientist-F,
Ministry of Environment, Forest and Climate Change,
Indira Paryavaran Bhawan, Jorbagh Road,
Aliganj, New Delhi – 110 003 (Email: shruti.raai@nic.in)

Sub: Monitoring Report in respect of Expansion of Narayanposhi Iron & Manganese Ore Mining Project of M/s JSW Steel Ltd located in Village(s) Koira & Kashira, Tehsil Bonai, District Sundergarh, Orissa.-reg.

Ref: Ministry's EC No. J-11015/288/2008-IA.II(M), dated 18.06.2019

Sir,

I am directed to draw your kind attention to the subject and reference letter cited above and to state that the above project has been monitored on 30.08.2024. Based on the observations made during inspection and documents submitted, the monitoring Report prepared and enclosed for kind information and further needful action.

Yours faithfully,

Encl : As above

(डॉ टी. एच. महतो /Dr. T. H. Mahato)

वैज्ञानिक-ई/ Scientist 'E'

Copy to:

1. The PPS to Director General of Forest & Special Secretary, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, Aliganj, New Delhi – 110 003 (Email: dgfindia@nic.in)
2. Inspector General of Forests (FC), Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, Aliganj, New Delhi – 110 003, Email: ramesh.pandey@nic.in
3. Shri Prasanna Panda, Business Head, M/s JSW Steel Ltd, Plot No – 15, Bhusgaon, At – Bhadrasi, PS- Barbil, District – Keonjhar – 758035 (Email: prasanna.panda@jsw.in)
4. Compliance and Monitoring Division (CMD), Ministry of Environment, Forest and Climate Change, Paryavaran Bhawan, Jorbagh Road, Aliganj, New Delhi – 110 003, (Email: moefcc-monitoring@gov.in)

वैज्ञानिक-ई/ Scientist 'E'

Government of India
Ministry of Environment, Forests and Climate Change (MoEF&CC)
Regional Office – Bhubaneswar

MONITORING REPORT
PART - I
DATA SHEET

File No: 101-1040/18/EPE

1		Project Type River valley / Mining / Industry / Thermal / Nuclear / Other Specify	:	Mining
2		Name of the project	:	Narayanposhi Iron and Manganese Ore Mines
3		Clearance letter(s) / OM No. and dated	:	J-11015/288/2008-IA.II(M), dated. 18.06.2019
		CTE		No. 536 / IND-II-CTE-6207 dated 14.01.2019
		CTO		No. 4987/IND-I-CON-2258 dated 29-03-2022
4		<u>Locations</u>	:	
	a.	Taluk(s) District	:	Koira, Sundargarh
	b.	State (s)	:	Odisha
	c.	Latitudes / Longitudes	:	21°54'46.07"N-21°56'23.13"N 85°13'41.16" E - 85°14'56.56" E
5		<u>Address of correspondence</u>		
	a.	Address of concerned project Chief Engineer (with Pin Code & telephone / telex / fax numbers)		Shri Prasanna Panda, Business Head, M/s JSW Steel Ltd, Plot No – 15, Bhusgaon At – Bhadrasi, PSn- Barbil District – Keonjhar – 758035 Phone- +91 – 9437010282 Email: prasanna.panda@jsw.in Fax: 02242861000
	b.	Address of Executive Project Engineer/ Manager (with Pin Code/fax numbers)	:	Shri Tapan Kumar Rath, M/s JSW Steel Ltd Plot No – 15, Bhusgaon At – Bhadrasi, PS – Barbil District – Keonjhar – 758035 Phone no. 9031055737
6		<u>Salient features:</u>		
	a.	Salient features of the project		Iron and Manganese Ore Mines and establishment of beneficiation plant.
	b.	of the environmental management plans		Covered in the EIA/EMPs submitted to the Ministry of Environment forests and Climate Change (MoEF&CC) for approval at the time of grant of environment Clearance (EC).
7		<u>Breakup of the project area:</u>		
	a	Project area	:	349.254Ha (As per the EC accorded)

Jonahat

8		Break up of project affected population with enumeration of those losing houses / dwelling units only, agricultural land only, both dwelling units and agricultural land and landless labourers / artisans		NA (As reported by PP)
	a	SC, ST/Adivasis	:	
	b	Others	:	
9		Financial Details:		
	a	Project cost as originally planned and subsequent revised estimates and the years of price reference	:	85 Crores. (As per the EC accorded)
	b	Allocations made for environmental management plans, with item wise and year wise breakup	:	About 3.44 Cr of capital and 2.09 Cr was the recurring expenditure (as per EC accorded)
	c	Benefit cost ratio / internal rate of return and the years of assessment	:	Details has not been furnished.
	d	Whether (c) includes the cost of environmental management as shown in (b) above	:	Yes (As reported by PP)
	e	Total expenditure on the Project so far	:	Not available (the mine has been taken through auction and vested to JSW Steel Ltd in the year 2020) (as reported by PP)
	f	Actual expenditure incurred on the environmental management plans so far	:	About 5.54 crores of expenditure of EMP (As reported by PP)
10		Forest land requirement:	:	
	a	The status of approval for a diversion of forest land for non-forestry use	:	Forest clearance (Stage-II) for diversion of 244.327 ha including 184.591 ha of virgin land vide letter no 8-34/200-FC (Vol-I) dated 15.11.2007 and vested to JSW. Forest Clearance (FC) for 184.591 ha virgin land accorded vide letter no. FE-DIV-FLD-0067-2022-17050/EF&CC dated 22.09.2022.
	b	The status of compensatory afforestation, if any	:	Compensatory Afforestation land over 184.591 ha is provided by Ex lessee, M/s AMTC Pvt. Ltd. Beside this 53.61 ha CA land is allotted in village Phulabadi under Banspal Tahasil of Keonjhar District by JSW Steel Ltd in respect of pre-80 broken up forest land. (As reported by PP)
	c	The status of clear felling	:	Details has not been provided.
	d	Comments on the viability and sustainability of compensatory afforestation programme in the light of actual field experience so far	:	NA
11		The status of clear felling in non-forest area (such as submergence area of reservoir, approach road), if any, with quantitative information	:	Details has not been provided.
12		Status of construction:	:	
	a	Date of commencement	:	01.07.2020 (as reported by PP)
		Date of completion (actual and / or planned)	:	26.06.2070 (As reported by PP)

13		Reasons for the delay if the project is yet to start.	:	NA
14		<u>Date of site visit:</u>		
	a	The dates on which the project was monitored by the Regional Office on previous occasions, if any	:	06.03.2021, 6 and 7 th Feb., 2023.
	b	Date of site visit for this monitoring report		30.08.2024

Photographs



Photo 1: Mechanized vacuum cleaner



Photo 2: Coir matt on OB dump



Photo 3: Display board at entrance



Photo 4: Under Costruction benficiation plant



Photo 5: Settling pit



Photo 6: Tree Transplantation

Mahesh



Photo 7: Safety zone Plantation



Photo 8: Check dam on seasonal nala



Photo 9: Piezo meter



Photo 10: Concrete road to Mn Quency



Photo 11: Setling pit



Photo 12: Toe wall



Photo 13: Old Kachha road to Mn query



Photo 14: Water sprinkling on screening plant

Maheeb



Photo 15: Wet drill machine



Photo 16: 50KL Water Sprinkler



Photo 17: Toe wall and garland drain



Photo 18: vertilizer grass



Photo 19: Covered Truck



Photo 20: Plantation on Road side

Mahesh

**DESCRIPTIVE REPORT ON STATUS OF COMPLIANCE TO THE
CONDITIONS OF THE ENVIRONMENTAL CLEARANCE AND ENVIRONMENTAL
MANAGEMENT**

Subject:	Expansion of Narayanposhi Iron & Manganese Ore Mining Project of M/s JSW Steel Ltd located in Village(s) Koira & Kashira, Tehsil Bonai, District Sundergarh, Orissa.
Reference:	Ministry EC letter No. J-11015/288/2008-IA.II(M), Dated 18.06.2019

PRESENT STATUS OF THE PROJECT:

Ministry of Environment Forests and Climate Change has accorded Environmental Clearance (EC) to Narayanposhi Iron and Manganese Ore Mines vide EC No. J-11015/288/2008-IA.II(M), dated 18.06.2019 for enhancement of iron ore from 3.0 Million TPA to 6.0 Million TPA (ROM) and existing 0.036 million TPA Mn Ore and establishment of beneficiation plant with capacity of 2.0 MTPA along with crusher and screening plant located at villages of Koira, & Kashira and Kathmala RF, Tehsil Koira, District Sundergarh, Odisha (MLA 349.254Ha) to M/s Aryan Mining and Trading Corporation Pvt Ltd. During visit it has been informed that EC has been accorded to M/s Aryan Mining and Trading Corporation Pvt Ltd vide dated 18.06.2019. Vide vesting order no 4212/SM/IV(B) SM-21/2020 dated 30.05.2020 of steel and mines department, Government of Odisha the lease has been auctioned and M/s JSW steel ltd has been declared as the preferred bidder. Acknowledgement letter from Ministry regarding registration form transfer of EC vested under the provision of S.O. 2817 dated **13.07.2021** has been furnished vide letter dated **11.12.2021**.

The above project was monitored by Dr. T. H. Mahato, Scientist-E, Regional Office, Bhubaneswar on 30.08.2024 along with Mr Suresh Mohapatra, AVP JSW

During visit construction activity for 2000 TPH crushing and screening plant was under process. The report is submitted on the basis of the field visit and as per the information provided by the PP. The status of compliance on the stipulated conditions contained in the EC cited above is given below:

Sl. No.	Stipulated conditions	Compliance																	
Ministry EC letter No. J-11015/288/2008-IA.II(M), Dated 18.06.2019																			
	A. Specific Conditions	Compliance																	
1	The enhanced production shall be on pro-rata basis for the effective period of valid environment clearance granted herein. The PP shall ensure its compliance by getting concurrence in mining plan approved by concern authority in this regard.	<p align="center">BEING COMPLIED</p> <p>Detail of production reported as :</p> <table border="1"> <thead> <tr> <th rowspan="2">Period</th> <th colspan="2">Production in Tonnes</th> </tr> <tr> <th>Iron Ore</th> <th>Mn Ore</th> </tr> </thead> <tbody> <tr> <td>2020-21</td> <td>4.48</td> <td>0.0004</td> </tr> <tr> <td>2021-22</td> <td>5.44</td> <td>0.0047</td> </tr> <tr> <td>2022-23</td> <td>5.30</td> <td>0.0052</td> </tr> <tr> <td>2023-24</td> <td>5.63</td> <td>0.0005</td> </tr> </tbody> </table> <p>EC accorded for 6.0 MTPA (ROM) of iron ore and existing 0.036 MTPA Mn ore along with 2.0 MTPA beneficiation plant and crusher and screening plant.</p>	Period	Production in Tonnes		Iron Ore	Mn Ore	2020-21	4.48	0.0004	2021-22	5.44	0.0047	2022-23	5.30	0.0052	2023-24	5.63	0.0005
Period	Production in Tonnes																		
	Iron Ore	Mn Ore																	
2020-21	4.48	0.0004																	
2021-22	5.44	0.0047																	
2022-23	5.30	0.0052																	
2023-24	5.63	0.0005																	
2	This EC for expansion proposal (iron ore production from 3.0 MTPA to 6.0 MTPA (ROM) and existing 0.036 MTPA Manganese ore and establishment of Beneficiation Plant with capacity of 2.0 Million TPA along with	<p align="center">PLEASE REFER BELOW</p> <p>PP informed that EC capacity of 6.0 MTPA was accorded to ex-lease in the year 2019 in the name of M/s Aryan Mining & Trading Corp. Pvt. Ltd. Vesting order was given to M/s. JSW</p>																	

Mahato

Sl. No.	Stipulated conditions	Compliance																	
	crusher and screening plant within the mine lease area) shall be operational after submission of an undertaking through affidavit to MoEF& CC within 15 days of receipt of this letter, for compliance of all the conditions prescribed herein.	Steel Limited from Steel & Mines Department, Government of Odisha vide Order no. 4212/SM, dated 30 th May 2020 as per MMDR Act, 1957 and Mineral concession Rules, 2016. During visit it was informed that undertaking given by Ex-lessee has not been available with present PP. Present PP has submitted an undertaking through affidavit.																	
3	Project Proponent and Department of Steel & Mines, Govt. of Odisha shall ensure the implementation of recommendations of carrying capacity study report conducted by CSIR-NEERI w.r.t. mining proposal of iron Ore and/or manganese in the State of Odisha.	<p align="center">PARTIALLY COMPLIED</p> <p>Recommendation of NEERI such as quantification of air emission load for dust load only, mobile water sprinkler at haul road, dry fog type dust suppression system material handling plants (crusher and screen) to minimize air pollution has been implemented. Monitoring of ambient air and fugitive emission data has been furnished with the six monthly compliance. Ambient air quality is being monitored at buffer zone. CO is being measured as a parameter of ambient air quality. During visit checked vehicle was found to be with valid PUC. Noise level monitoring is being carried out. Flow rate measurement of perennial nala is being done. Oil and grease trap has been provided at the vehicle washing bay. Environmental sustainability report has been furnished to the Regional Office.</p>																	
4	Department of Steel & Mines, Govt. of Odisha should prepare 5 years' regional plan for annual iron ore requirement from the state, which in turn shall be met from different mines/zones (e.g. Joda, Koira.) in the state. Accordingly, sustainable annual production (SAP) for each zone/mine may be followed adopting necessary environmental protection measures	<p align="center">PLEASE REFER BELOW</p> <p>Details regarding 5-year regional plan for annual iron ore requirement from the state has not been furnished. Detail of production furnished below.</p> <table border="1"> <thead> <tr> <th rowspan="2">Period</th> <th colspan="2">Production in Tonnes</th> </tr> <tr> <th>Iron Ore</th> <th>Mn Ore</th> </tr> </thead> <tbody> <tr> <td>2020-21</td> <td>4.48</td> <td>0.0004</td> </tr> <tr> <td>2021-22</td> <td>5.44</td> <td>0.0047</td> </tr> <tr> <td>2022-23</td> <td>5.30</td> <td>0.0052</td> </tr> <tr> <td>2023-24</td> <td>5.63</td> <td>0.0005</td> </tr> </tbody> </table> <p>EC accorded for 6.0 MTPA (ROM) of iron ore and existing 0.036 MTPA Mn ore along with 2.0 MTPA beneficiation plant and crusher and screening plant.</p>	Period	Production in Tonnes		Iron Ore	Mn Ore	2020-21	4.48	0.0004	2021-22	5.44	0.0047	2022-23	5.30	0.0052	2023-24	5.63	0.0005
Period	Production in Tonnes																		
	Iron Ore	Mn Ore																	
2020-21	4.48	0.0004																	
2021-22	5.44	0.0047																	
2022-23	5.30	0.0052																	
2023-24	5.63	0.0005																	
5	Project Proponent shall construct the cement concrete road from mine entrance and exit to the main road with proper drainage system and green belt development along the roads and also construction of road with minimum 300 m inside the mine. This should be done within one year for existing mines and new mine should have since beginning. The Department of Steel & Mines, Govt. of Odisha should ensure the compliance and should not issue the	<p align="center">BEING COMPLIED</p> <p>Cement concrete road at the mine entrance has been provided for Iron ore Mining. Newly constructed cement concrete road was observed at the Mn Query to the connecting road to NH. The Kachha Road used earlier to enter Mn Query was found to be not in use during visit.</p>																	



Sl. No.	Stipulated conditions	Compliance
	Mining Permits, if mine lease holder has not constructed proper cement concrete road as suggested. This Environmental Clearance for the expansion project shall be operated only after the compliance of the above-mentioned specific condition.	
6	The Committee observed that as per the recommendations of NEERI report the PP needs to do regular vacuum cleaning of all mineral carrying roads aiming at "zero dust re-suspension" within 3 months. This Environmental Clearance for the expansion project shall be operated only after the compliance of the above-mentioned specific condition.	<p align="center">PARTIALLY COMPLIED</p> <p>One vacuum sweeping machine has been provided near the mine. Fixed water sprinkler has been provided in part of the haul road. Water sprinkling has been observed along the haul road by two number of truck mounted tanker of reported capacity 50Kl and 16 KL. As per the documents furnished material are being transported to railway siding for shipping and end user. Details of vacuum cleaning in all the transportation road has not been furnished.</p>
7	Project Proponent shall monitor the environmental quality parameters as per EC and CTE/CTO conditions, and implementation of suggested measures for control of road dust and air pollution. Odisha State Pollution Control Board has to ensure the compliance of CTE/CTO. Regional office of the MoEF&CC, Bhubaneswar shall monitor the compliance of the EC conditions. Regional office of the Indian Bureau of Mines (IBM) shall monitor the compliance of mining plan and progressive mine closure plan. Any violation by mine lease holder may invite actions per the provisions of applicable Acts.	<p align="center">BEING COMPLIED</p> <p>Environmental quality parameter such as ambient air quality, Fugitive emission, Noise level, Surface water quality, Ground water quality etc. has been monitored. Regional Office of MoEF&CC monitors the compliance status of the stipulated Environmental clearance conditions.</p>
8	Project Proponent shall ensure the compliance of Suggested Ore Transport Mode (SOTM) with association of the State Government of Odisha. All existing mines should ensure adoption of SOTM within next 5 years. New mines or mines seeking expansion should incorporate provision of SOTM in the beginning itself, and should have system in place within next 5 years.	<p align="center">PARTIALLY COMPLIED</p> <p>During visit ore transportation through dumper truck has been observed. PP informed that 24 percent ore are being transported to railway siding (located at a distance of 10 km to 25 km approx.), 51 percent for shipping (located at a distance 300 km approx.) and to the end user (25% located at a distance of 200 km. approx) by dumper. EC was accorded in the year 2019.</p> <p>PP informed that construction of slurry pipeline is under process. The ore/concentrate will be transported from Nuagaon to Paradeep through slurry pipeline.</p>
9	The State Govt. of Odisha shall ensure dust free roads in mining areas wherever the road transportation of mineral is involved. The road shoulders shall be paved with fence besides compliance with IRC guidelines. All the roads should have proper drainage system and apart from paving of entire carriage width the	<p align="center">PLEASE REFER BELOW</p> <p>Paved road has been provided for transportation of ore through the NH. PP submitted that Cleaning of transport road sweeping machine on regular basis near the lease area. Dust was found on the road shoulder along the transportation roads. Natural Plantation along</p>

Tmahat

Sl. No.	Stipulated conditions	Compliance																	
	remaining right of way should have native plantation (dust capturing species). Further, regular maintenance should also be ensured by the Govt. of Odisha. Progress on development of dust free roads, implementation of SOTM, increased use of existing rail network, development of additional railway network/conveyor belt/ pipelines etc. shall be submitted periodically to Regional office of the MoEF&CC.	the road side has been observed. Implantation status of EC condition furnished in six monthly compliance report.																	
10	Project Proponent shall develop the parking plazas for trucks with proper basic amenities/ facilities inside the mine. This should be done within one year for existing mines and new mines should have since beginning. This Environmental Clearance for the expansion project shall be operated only after the compliance of the above-mentioned specific condition.	<p style="text-align: center;">BEING COMPLIED</p> Parking plaza has been developed at the site along with facilities such as toilet and rest area.																	
11	Department of Steel & Mines shall ensure the construction of NH 215 as minimum 4 lane road with proper drainage system and plantation and subsequent regular maintenance of the road as per IRC guidelines. Construction of other mineral carrying roads with proper width and drainage system along with road side plantation to be carried out. This shall be completed within 2 Years.	<p style="text-align: center;">BEING COMPLIED</p> Four lane road (NH-215) has been constructed. Natural plantation has been observed along the transportation road. The transportation road from mine to Barbil are found to be maintained.																	
12	Regular vacuum cleaning of all mineral carrying roads aiming at "Zero Dust Re-suspension" shall be adopted by PWD / NHAI/ Mine Lease Holders within a time Period of 3 months for existing roads. This Environmental Clearance for the expansion project shall be operated only after the compliance of the above-mentioned specific condition.	<p style="text-align: center;">Same as condition no 6</p>																	
13	In case the total requirement of iron ore exceeds the suggested limit for that year, permission for annual production by an individual mine may be decided depending on approved EC capacity (for total actual dispatch) and actual production rate of individual mine during last year or any other criteria set by the State Govt., i.e. Dept. of Steel & Mines. Department of Steel and Mines in consultation with Indian Bureau of Mines-RO should prepare in advance mine-wise annual production scenario so that demand for iron ore can be anticipated, and actual production/dispatch does not exceed the suggested annual production.	<p style="text-align: center;">BEING COMPLIED</p> Production details reported is an under: <table border="1"> <thead> <tr> <th rowspan="2">Period</th> <th colspan="2">Production in Tonnes</th> </tr> <tr> <th>Iron Ore</th> <th>Mn Ore</th> </tr> </thead> <tbody> <tr> <td>2020-21</td> <td>4.48</td> <td>0.0004</td> </tr> <tr> <td>2021-22</td> <td>5.44</td> <td>0.0047</td> </tr> <tr> <td>2022-23</td> <td>5.30</td> <td>0.0052</td> </tr> <tr> <td>2023-24</td> <td>5.63</td> <td>0.0005</td> </tr> </tbody> </table> <p>EC accorded for 6.0MTPA(ROM) of iron ore and existing 0.036MTPA Mn ore along 2.MTPA beneficiation plant</p>	Period	Production in Tonnes		Iron Ore	Mn Ore	2020-21	4.48	0.0004	2021-22	5.44	0.0047	2022-23	5.30	0.0052	2023-24	5.63	0.0005
Period	Production in Tonnes																		
	Iron Ore	Mn Ore																	
2020-21	4.48	0.0004																	
2021-22	5.44	0.0047																	
2022-23	5.30	0.0052																	
2023-24	5.63	0.0005																	



Sl. No.	Stipulated conditions	Compliance
14	R&D studies towards utilization of low-grade iron ore should be conducted through research/academic institutes like IMMT, Bhubaneswar, NML, Jamshedpur, and concerned metallurgical departments in IITs, NITs etc., targeting full utilization of low-grade iron ore (Fe content up to 45% by 2020 and up to 40% by 2025). In fact, life cycle assessment of whole process including environmental considerations should be done for techno-economic and environmental viability. R&D studies on utilization of mine wastewater having high concentration of Fe content for different commercial applications in industries such as cosmetics, pharmaceutical, paint industry should also be explored. Responsibility: IBM, Dept. of Steel & Mines, Individual Mine Lease Holders.	<p align="center">PLEASE REFER BELOW</p> <p>Report on washing and desliming of iron ore fines of Narayanposi mines prepared by IMMT Bhubaneswar has been furnished. During visit beneficiation plant was found to be under construction. PP submitted that as per the mining process no waste water is generated and discharged outside the lease, hence commercial application in other industries is not feasible. R & D studies on utilization of mine waste water yet to be carried out. Ministry may like to take a view on the submission of PP.</p>
15	The mining activity in Joda-Koira sector is expected to continue for another 100 years, therefore, it will be desirable to develop proper rail network in the region. Rail transport shall not only be pollution free mode but also will be much economical option for iron ore transport. The rail network and/or conveyor belt system up to public railway siding needs to be created. The total length of the conveyor belt system/ rail network to be developed from mines to nearest railway sidings by 11 mines in Joda region is estimated to be about 64 km. Similarly, in Koira region, total length of rail network/ conveyor system for 8 mines (under SOTM 1 & 2) is estimated to be around 95 km. Further, it is suggested to develop a rail network connecting Banspani (Joda region) and Roxy railway sidings in Koira region. Responsibility: Dept. of Steel & Mines, Govt. of Odisha and Concerned Mines along with Indian Railways. Time Period: Maximum 7 years (by 2025). The Department of Steel & Mines, Govt. of Odisha should follow-up with the concerned Departments and railways so that proposed proper rail network is in place by 2025.	<p align="center">PLEASE REFER BELOW</p> <p>During visit ore transportation through dumper truck has been observed. PP informed that 24 percent ore are being transported to railway siding (located at a distance of 10 km to 25 km approx.), 51 percent for shipping (located at a distance 300 km approx.) and to the end user (25% located at a distance of 200 km. approx) by dumper. EC was accorded in the year 2019 and period of 7 year yet to be completed.</p> <p>PP informed that construction of slurry pipeline is under process. The ore/concentrate will be transported from Nuagaon to Paradeo through slurry pipeline.</p>
16	State Govt. of Odisha shall make all efforts to ensure exhausting all the iron & manganese ore resources in the existing working mines and from disturbed mining leases/zones in Joda and Koira region. The criteria suggested shall be applicable while suggesting appropriate lease area and sustainable mining rate. Responsibility: Dept. of Steel & Mines,	<p align="center">PLEASE REFER BELOW</p> <p>During visit mining was observed at the site. PP ensures to exhaust all the Iron and Mn ore resources in the site.</p>

Sl. No.	Stipulated conditions	Compliance
17	<p>Govt. of Odisha.</p> <p>Mining Operations/Process Related: Project Proponent shall implement the following mitigation measures: (i) Appropriate mining process and machinery (viz. right capacity, fuel efficient) should be selected to carry out various mining operations that generate minimal dust/air pollution, noise, wastewater and solid waste. e.g. drills should either be operated with dust extractors or equipped with water injection system. (ii) After commencement of mining operation, a study should be conducted to assess and quantify emission load generation (in terms of air pollution, noise, waste water and solid waste) from each of the mining activity (including transportation) on annual basis. Efforts should be made to further eliminate/ minimize generation of air pollution/dust, noise, wastewater, solid waste generation in successive years through use of better technology. This shall be ensured by the respective mine lease holders. (iii) Various machineries/equipment selected (viz. dumpers, excavators, crushers, screen plants etc.) and transport means should have optimum fuel/power consumption, and their fuel/power consumption should be recorded on monthly basis. Further, inspection and maintenance of all the machineries/ equipment/ transport vehicles should be followed as per manufacturer's instructions/ recommended time schedule and record should be maintained by the respective mine lease holders. (iv) Digital processing of the entire lease area using remote sensing technique should be carried out regularly once in 3 years for monitoring land use pattern and mining activity taken place. Further, the extent of pit area excavated should also be demarcated based on remote sensing analysis. This should be done by ORSAC (Odisha Space Applications Centre, Bhubaneswar) or an agency of national repute or if done by a private agency, the report shall be vetted/ authenticated by ORSAC, Bhubaneswar. Expenses towards the same shall be borne by the respective mine lease holders. Responsibility: Individual Mine Lease Holders.</p>	<p>PARTIALLY COMPLIED</p> <p>PP submitted that selection of equipment has been made keeping in view the terrain condition. Drill equipped with wet drilling along with dust extractor has been provided. Dust load calculation data has been furnished for PM only. Emission load generation study as report as per the condition has not been furnished. PP informed that inspection and maintenance of all the machineries/ equipment/ transport vehicles are being followed as per manufacturer's instructions/ recommended time schedule and record should be maintained by HEMM/ Maint. Dept. During visit checked vehicle was found to be with valid PUC.</p> <p>Dust load generation with respect to mining operation has been furnished. Emission load generation details as per the condition has not been furnished.</p> <p>PP furnished a land use land cover map based on the drone image of the period of August 2021, on drone images supplied by M/s JSW Steel Ltd., stamed and signed by Orissa Space Application Centre, Bhubaneswar dated 09.12.2024.</p>
18	<p>Air Environment Related: Project Proponent shall implement the following mitigation</p>	<p>PARTIALLY COMPLIED</p> <p>Fugitive emission monitoring data has been</p>



Sl. No.	Stipulated conditions	Compliance
	<p>measures: (i) Fugitive dust emissions from all the sources should be controlled regularly on daily basis. Water spraying arrangement on haul roads, loading and unloading and at other transfer points should be provided and properly maintained. Further, it will be desirable to use water fogging system to minimize water consumption. It should be ensured that the ambient air quality parameters conform to the norms prescribed by the CPCB in this regard. (ii) The core zone of mining activity should be monitored on daily basis. Minimum four ambient air quality monitoring stations should be established in the core zone for SPM, PM10, PM2.5, SO2, NOx and CO monitoring. Location of air quality monitoring stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board (based on Emission Load Assessment Study). The number of monitoring locations may be more for larger capacity mines and working in larger area. Out of four stations, one should be online monitoring station in the mines having more than 3 MTPA EC Capacity. (iii) Monitoring in buffer zone should be carried out by SPCB or through NABET accredited agency. In addition, air quality parameters (SPM, PM10, PM2.5, SO2, NOx and CO) shall be regularly monitored at locations of nearest human habitation including schools and other public amenities located nearest to source of the dust generation as applicable.</p> <p>(iv) Emissions from vehicles as well as heavy machinery should be kept under control and regularly monitored. Measures should be taken for regular maintenance of vehicles used in mining operations and in transportation of mineral. (v) The vehicles shall be covered with a tarpaulin and should not be overloaded. Further, possibility of closed container trucks should be explored for direct to destination movement of iron ore. Air quality monitoring at one location should also be carried out along the transport route within the mine (periodically, near truck entry and exit gate), Responsibility: Individual Mine Lease Holders and SPCB.</p>	<p>furnished along with the six-monthly compliance. Fixed water spraying arrangement in haul road in part, water tanker two no to suppress dust at the haul road has been provided. However, water spraying arrangement at the loading and unloading point has not been provided.</p> <p>PP furnished ambient air quality monitoring data of four locations along with the submitted six monthly compliance for PM10, PM2.5, SO2, NO2 and CO. Three online ambient air quality monitoring station has been provided for monitoring of PM10, PM2.5, SO2, NO2 and CO.</p> <p>PP also furnished monitoring data of buffer zone in four locations i.e. Koira village, Bhanjpali village, Kashira Basti and Segasagi village for PM10, PM2.5, SO2, NO2 and CO.</p> <p>During visit checked vehicle was found to be with valid PUC and transportation is being done through covered trucks. PP submitted that closed container truck is not available in the market for Iron Ore transportation. PP also submitted that slurry pipeline system is under construction for transportation of Iron ore.</p>



Sl. No.	Stipulated conditions	Compliance
19	<p>Noise and Vibration Related: Project Proponent shall implement the following mitigation measures: (i) Blasting operation should be carried out only during daytime. Controlled blasting such as Nonel, should be practiced. The mitigation measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented. (ii) Appropriate measures should be taken for control of noise levels below 85 DB in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs. (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone. Further, date, time and distance of measurement should also be indicated with the noise levels in the report. The data should be used to map the noise generation from different activities and efforts should be made to maintain the noise levels with the acceptable limits of CPCB (CPCB, 2000) (iv) Similarly, vibration at various sensitive locations should be monitored at least once in month, and mapped for any significant changes due to successive mining operations. Responsibility: Individual Mine Lease Holders.</p>	<p style="text-align: center;">BEING COMPLIED</p> <p>PP informed that blasting operation carried out on day time only and controlled blasting is being practiced. As per the noise level data furnished noise level reported to be within 85 Leq and noise level monitored in weekly basis. Vibration monitoring report has also been furnished. PP furnished monthly change in vibration during the period of April 23 to March 24.</p>
20	<p>Water/Wastewater Related: Project Proponent shall implement the following mitigation measures: (i) In general, the mining operations should be restricted to above ground water table and it should not intersect groundwater table. However, if enough resources are estimated below the ground water table, the same may be explored after conducting detailed geological studies by GSI and hydro- geological studies by CGWB or NIH or institute of national repute, and ensuring that no damage to the land stability/ water aquifer system shall happen. The details/ outcome of such study may be reflected/incorporated in the EIA/EMP report of the mine appropriately. (ii) Natural watercourse and/or water resources should not be obstructed due to any mining operations. Regular monitoring of the flow rate of the springs and perennial nallas should be carried out and records should be maintained. Further, regular monitoring of water quality of nallas and river passing thorough the mine lease area (upstream and downstream locations) should be carried out on monthly basis. (iii) Regular</p>	<p style="text-align: center;">BEING COMPLIED</p> <p>During visit PP informed that the ground water table has not been intersected in iron ore pits. In Mn quarry the mine has touched the ground water table. PP furnished Hydrogeology report of June 2022 prepare by Geo Climate risk Solution Pvt. Ltd (an accredited agency by CGWA).</p> <p>Obstruction to natural water course has not been observed. PP furnished surface water flow rate and quality monitoring data of upstream and downstream of Karo river and Oraharinala. Ground water level and quality monitoring data has also been furnished. STP installed at operator colony. Garland drain and retaining wall provided for collection of runoff. PP furnished Environmental monitoring report conducted by M/s Visiontek Consultancy services Pvt Ltd signed by Board analyst State Pollution Control Board, Rourkela for Jan 2024.</p> <p>During visit workshop was under construction. Oil and grease trap has been provided to the washing Bay.</p>

Tomahat

Sl. No.	Stipulated conditions	Compliance
	<p>monitoring of ground water level and its quality should be carried out within the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out on monthly basis. (iv) In order to optimize water requirement, suitable conservation measures to augment ground water resources in the area should be undertaken in consultation with Central Ground Water Board (CGWB). (v) Suitable rainwater harvesting measures on long term basis should be planned and implemented in consultation with CGWB, to recharge the ground water source. Further, CGWB can prepare a comprehensive plan for the whole region. (vi) Appropriate mitigation measures (viz. ETP, STP, garland drains, retaining walls, collection of runoff etc.) should be taken to prevent pollution of nearby river/other water bodies. Water quality monitoring study should be conducted by State Pollution Control Board to ensure quality of surface and ground water sources on regular basis. The study can be conducted through NABL/ NABET approved water testing laboratory. However, the report should be vetted by SPCB. (vii) Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated in ETP so as to conform to the discharge standards applicable. (viii) Oil and grease trap should be installed before discharge of workshop effluents. Further, sewage treatment plant should be installed for the employees/colony, wherever applicable. (ix) Mine lease holder should ensure that no silt originating due to mining activity is transported in the surface water course or any other water body. Appropriate measures for prevention and control of soil erosion and management of silt should be undertaken. Quantity of silt/soil generated should be measured on regular basis for its better utilization. (x) Erosion from dumps site should be protected by providing geo-textile matting or other suitable material, and thick plantation of native trees and shrubs should be carried out at the dump slopes. Further, dumps should be protected by retaining walls. (xi) Trenches/ garland drain should be constructed at the foot of dumps to arrest silt from being carried to water bodies. Adequate</p>	<p>PP submitted that mine out pit is being use as rain water harvesting structure. Monitoring data of surface runoff and inlet and outlet of Oil and Grease trap (reported as ETP) has been furnished. Data reported was within norms. Oil and grease trap provided at the washing Bay. STP provided at the operator Colony. Dump site protected by providing geotextile mats along with plantation seed board casting vertibar grassing over the dump.</p> <p>Geo-textile matting and plantation carried out at the dump. Retaining wall also provided.</p> <p>Garland drains have been constructed to arrest silt. One check dam constructed in the seasonal nallah.</p> <p>PP submitted that water collected in the reservoir are used for dust suppression using fixed and mobile sprinkler.</p> <p>PP furnished water balance diagram. It was submitted that domestic waste water re-used in green belt development after treatment in STP.</p>

Imahat

Sl. No.	Stipulated conditions	Compliance
	<p>number of check dams should be constructed across seasonal/perennial nallas (if any) flowing through the mine lease areas and silt be arrested. De-silting at regular intervals should be carried out and quantity should be recorded for its better utilization, after proper soil quality analysis. (xii) The water so collected in the reservoir within the mine should be utilized for the sprinkling on hauls roads, green belt development etc. (xiii) There should be zero waste water discharge from the mine. Based on actual water withdrawal and consumption/ utilization in different activities, water balance diagram should be prepared on monthly basis, and efforts should be made to optimize consumption of water per ton of ore production in successive years. Responsibility: Individual Mine Lease Holders, SPCB and CGWB.</p>	
21	<p>Land/Soil/Overburden Related: Project Proponent shall implement the following mitigation measures: (i) The top soil should temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long (not more than 3 years or as per provisions mentioned in the mine plan/ scheme). The topsoil should be used for land reclamation and plantation appropriately. (ii) Fodder plots should be developed in the non-mineralised area in lieu of use of grazing land, if any. (iii) Over burden/ low grade ore should be stacked at earmarked dump site (s) only and should not be kept active for long period. The dump height should be decided on case-to-case basis, depending on the size of mine and quantity of waste material generated. However, slope stability study should be conducted for larger heights, as per IBM approved mine plan and DGMS guidelines. The OB dump should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles should be undertaken for stabilization of the dump. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Proper records should be maintained regarding species, their growth, area coverage etc. (iv) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from mine operation, soil, OB and mineral dumps. The water so collected can be utilized</p>	<p style="text-align: center;">BEING COMPLIED</p> <p>During visit top soil dump has not been observed. PP informed that presently mining has been restricted to broken up area only. PP stated that there is no use of grazing land. PP submitted that fodder plot developed in the non-mineralized area. Over burden, low grade ore stacked in the earmarked area. Slope stability study has been conducted through NIT Rourkela. Geo textile matting in critical area and plantation carried out at the dump.</p> <p>Settling pond has been observed at the site. As per the information provided three settling has capacity of 2478.7 m³, 5779.5 m³, 6789.7 m³.</p> <p>As per the information provided the length of garland drain is 900m.</p> <p>As per the information provided backfilling has been done on quarry no 3. Hazardous waste authorization has been obtained from Pollution Control Board.</p> <p>Garland drain and siltation pond provided to arrest silt. Collected water is used for dust suppression and green belt development.</p> <p>Hazardous waste authorization has been accorded by SPSB which is valid till 31.03.2026. PP submitted that hazardous waste has been disposed of as per provision of</p>



Sl. No.	Stipulated conditions	Compliance
	<p>for watering the mine area, roads, green belt development etc. The drains should be regularly de-silted, particularly after monsoon and should be maintained properly. Appropriate documents should be maintained. Garland drain of appropriate size, gradient and length should be constructed for mine pit, soil, OB and mineral dumps and sump capacity should be designed with appropriate safety margin based on long term rainfall data. Sump capacity should be provided for adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and de-silted at regular intervals. (v) Backfilling should be done as per approved mining plan/scheme. There should be no OB dumps outside the mine lease area. The backfilled area should be afforested, aiming to restore the normal ground level. Monitoring and management of rehabilitated areas should continue till the vegetation is established and becomes self-generating. (vi) Hazardous waste such as, waste oil, lubricants, resin, and coal tar etc. should be disposed off as per provisions of Hazardous Waste Management Rules, 2016, as amended from time to time. Responsibility: Individual Mine Lease Holders.</p>	<p>hazardous waste management rules.</p>
22	<p>Ecology/Biodiversity (Flora-Fauna) Related: Project Proponent shall implement the following mitigation measures: (i) All precautionary measures should be taken during mining operation for conservation and protection of endangered fauna namely elephant, sloth bear etc. spotted in the study area. Action plan for conservation of flora and fauna should be prepared and implemented in consultation with the State Forest and Wildlife Department within the mine lease area, whereas outside the mine lease area, the same should be maintained by State Forest Department. (ii) Afforestation is to be done by using local and mixed species saplings within and outside the mining lease area. The reclamation and afforestation is to be done in such a manner like exploring the growth of fruit bearing trees which will attract the fauna and thus maintaining the biodiversity of the area. As afforestation done so far is very less, forest department needs to identify adequate land and do afforestation by involving local</p>	<p>BEING COMPLIED</p> <p>PP furnished a copy of site specific wildlife conservation plan approved by Chief wildlife warden, PCCF(WL)and CWLW with letter no. 988/CWLW-FDWC-FD-0126-2021 dated 31-01-2022. PP submitted that Rs. 288.00 lakh has been deposited on the account of DFO, Bonai for implementation of SSWLCP.</p> <p>As per the document furnished approx. 21000 sampling has been planted during last three year. Survival reported to be 67%. During visit plantation in OB dump area has been observed.</p> <p>Vetiver grass of reported number 500 has been planted. PP submitted that an amount Rs. 2743000.00 has been deposited on the account of DFO Bonai for compensatory afforestation. Implementation status is awaited.</p>

Tomahat

Sl. No.	Stipulated conditions	Compliance
	<p>people in a time bound manner. (iii) Green belt development carried out by mines should be monitored regularly in every season and parameters like area under vegetation/plantation, type of plantation, type of tree species /grass species/scrubs etc., distance between the plants and survival rate should be recorded. (iv) Green belt is an important sink of air pollutants including noise. Development of green cover in mining area will not only help reducing air and noise pollution but also will improve the ecological conditions and prevent soil erosion to a greater extent. Further, selection of tree species for green belt should constitute dust removal/dust capturing plants since plants can act as efficient biological filters removing significant amounts of particulate pollution. Thus, the identified native trees in the mine area may be encouraged for plantation. Tree species having small leaf area, dense hair on leaf surface (rough surface), deep channels on leaves should be included for plantation. (v) Vetiver plantation on inactive dumps may be encouraged as the grass species has high strength of anchoring besides medicinal value. (vi) Details of compensatory afforestation done should be recorded and documented by respective forest divisions, and State Forest Department should present mine-wise annual status, along with expenditure details. Responsibility: Individual Mine Lease Holders and State Forest & Wildlife Department.</p>	
23	<p>Socio-Economic Related: Project Proponent shall implement the following mitigation measures: (i) Public interaction should be done on regular basis and social welfare activities should be done to meet the requirements of the local communities. Further, basic amenities and infrastructure facilities like education, medical, roads, safe drinking water, sanitation, employment, skill development, training institute etc. should be developed to alleviate the quality of life of the people of the region. (ii) Land outtees and land losers/affected people, if any, should be compensated and rehabilitated as per the national/state policy on Resettlement and Rehabilitation. (iii) The socio-economic development in the region should be focused and aligned with the guidelines/initiatives of Govt. of India/ NITI Aayog around prosperity, equality, justice,</p>	<p style="text-align: center;">BEING COMPLIED</p> <p>As per the information provided two village level coordinators has been appointed for interaction with the communities. Basic amenities like dedicated football coach, teacher to school, promoting skill based and agriculture based lively hood, safe drinking water, medical facility etc has been provided.</p> <p>PP reported project affected population as NIL.</p>

Tomahab

Sl. No.	Stipulated conditions	Compliance
	<p>cleanliness, transparency, employment, respect to women, hope etc. This can be achieved by providing adequate and quality facilities for education, medical and developing skills in the people of the region. District administration in association with mine lease holders should plan for "Samagra Vikas" of these blocks well as other blocks of the district. While planning for different schemes in the region, the activities should be prioritized as per Pradhan Mantri Khanij Kshetra Kalyan Yojna (PMKKKY), notified by Ministry of Mines, Govt. of India, vide letter no. 16/7/2017-M.VI (Part), dated September 16, 2015. Responsibility: District Administration and Individual Mine Lease Holders.</p>	
24	<p>Road Transport Related: Project Proponent shall implement the following mitigation measures: (i) All the mine lease holders should follow the suggested ore transport mode (SOTM), based on its EC capacity within next 5 years. (ii) The mine lease holders should ensure construction of cement road of appropriate width from and to the entry and exit gate of the mine. Further, maintenance of all the roads should be carried out as per the requirement to ensure dust free road transport. (iii) Transportation of ore should be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore/dust takes place. Further, air quality in terms of dust, PM:10 should be monitored near the roads towards entry & exit gate on regular basis, and be maintained within the acceptable limits. Responsibility: Individual Mine Lease Holders and Dept. of Steel & Mines.</p>	<p>PARTIALLY COMPLIED</p> <p>Concrete road has been constructed at the entry gate to iron ore ore mine. Concrete road to the entry of Mn mine provided. It was submitted that old Kachha road are not in use. Road sweeping machine has been provided to ensure dust free road transport. During visit ore transportation through covered truck has been observed. Air quality has been monitored near Gate no 1.</p> <p>Suggested Ore transport mode yet to be implemented. The EC was accorded on 18.06.2019 five years has already expired.</p>
25	<p>Occupational Health Related: Project Proponent shall implement the following mitigation measures: (i) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects periodically. (ii) Occupational health surveillance program for all the employees/workers (including casual workers) should be undertaken periodically (on annual basis) to observe any changes due to exposure to dust, and corrective measures should be taken immediately, if needed. (iii) Occupational health and safety measures related awareness programs including identification of work related health hazard,</p>	<p>BEING COMPLIED</p> <p>PP informed that Personnel working in dusty areas are provided with nose mask, safety glass and ear plug with proper safety training. Initial medical examination of 514 nos has been reported. A dispensary with doctor has been provided at the mine site.</p>



Sl. No.	Stipulated conditions	Compliance
	training on malaria eradication, HIV and health effects on exposure to mineral dust etc., should be carried out for all the workers on regular basis. A full time qualified doctor should be engaged for the purpose. Periodic monitoring (on 6 monthly basis) for exposure to respirable minerals dust on the workers should be conducted, and record should be maintained including health record of all the workers. Review of impact of various health measures undertaken (at an interval of 3 years or less) should be conducted followed by follow-up of actions, wherever required. Occupational health centre should be established near mine site itself. Responsibility: Individual Mine Lease Holders and District Administration (District Medical Officer).	
B. Standard Conditions		
I. Statutory Compliance		
1	This Environmental Clearance (EC) is subject to orders/judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.	AGREED UPON PP agreed to abide by the condition
2	This EC is valid up to 31.03.2020 as the lease validity i.e. valid up to 31 st March 2020 as per the Amended MMDR Act. 2015	PLEASE REFER BELOW As per the document furnished EC has been vested to JSW Steel Ltd for 2 years Vide vesting order no 4212/SM/IV(B) SM-21/2020 dated 30.05.2020 of steel and mines department, Government of Odisha. As per the information furnished State Government (Steel & Mines Department) has given vested order in favour of M/s. JSW Steel Limited vide No. 1335/SM, dated 15.02.2022 for grant of mining lease for 50 years and all clearances, vested under section-8A, Sub section-2 of Mines and Mineral Development Regulation Act, 1957.
3	The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Ors. before commencing the mining operations.	AGREED UPON PP agreed to abide by the condition
4	The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August,	PLEASE REFER BELOW As per the information furnished State Government (Steel & Mines Department) has given vested order in favour of M/s. JSW Steel Limited vide No. 1335/SM, dated 15.02.2022 for grant of mining lease for 50 years and all clearances, vested under section-8A, Sub



Sl. No.	Stipulated conditions	Compliance
	2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.	section-2 of Mines and Mineral Development Regulation Act, 1957.
5	This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.	PLEASE REFER BELOW As per the information furnished No Wild Life Sanctuary/Tiger Reserve/National Park/ within the core as well as within the buffer zone of the project.
6	This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.	BEING COMPLIED As per the EC accorded total forest area is 259.191Ha. Forest Clearance accorded for 244.327 Ha to M/s JSW Steel Ltd. 19.25 Ha yet to diverted. (As reported by PP) out of 244.327 Ha, 184.591 Ha has been transferred to the new lessee. PP submitted that mining has been restricted to diverted forest land only.
7	Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.	BEING COMPLIED Consent to establish has been accorded vide letter no 536/IND-II-CTE-6207 dated 14.01.2019 and Consent to operate accorded by Odisha Pollution Control Board vide letter no 4908/IND-I-CON-2320 dated 30.03.2024 valid up to 31.03.2026.
8	The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.	PLEASE REFER BELOW PP reported the condition agreed to comply.
9	The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.	PLEASE REFER BELOW PP reported that present mining operation has been restricted within vested lease granted over 347.008 ha (as per DGPS)
10	The Project Proponent shall follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".	PLEASE REFER BELOW The status has already been depicted in the condition of stipulated environmental clearance conditions.
11	The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.	PARTIALLY COMPLIED NOC from CGWA for 1715 m ³ /day is already vested to JSW which was valid upto 18.01.2022. Renewed NOC from CGWA has not been furnished.



Sl. No.	Stipulated conditions	Compliance
12	A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.	PLEASE REFER BELOW PP submitted that EC has been accorded to ex-lease. A copy of EC has been submitted to concerned Panchayat vide letter dated 02.08.2023..
13	State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.	PLEASE REFER BELOW Copy of the EC has been marked to State Pollution Control Board.
14	The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.	PLEASE REFER BELOW Details of advertisement regarding accord of Environmental clearance have not been furnished. PP submitted that EC has been accorded to ex lease. Ministry may like to take view on the matter.
15	The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time	BEING COMPLIED As per the information provided the EC has been accorded to M/s Aryan Mining & Trading Corporation Pvt. Ltd. Subsequently the due to expiry of lease on 31.03.2020, Lease has been auctioned and M/s JSW has been declared as preferred bidder. Acknowledge letter has been accorded by MOEFCC vide letter dated 11/12/2021.
II. Air quality monitoring and preservation		
16	The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/2o/go/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure	BEING COMPLIED Three numbers of Continuous ambient air monitoring stations (CAAQMS) have been installed for PM10, PM2.5, NO2, CO and SO2. PP reported the angle between ambient air quality stations as 120°. Display board has been provided in front of the main gate.



Sl. No.	Stipulated conditions	Compliance
	characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.	
17	Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metaled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipment's/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.	<p style="text-align: center;">PARTIALLY COMPLIED</p> <p>Fugitive dust emission monitoring data has been furnished with the submitted six monthly compliances. Water sprinkling by fixed sprinkler has been provided in part of the haul road. Water sprinkler through tanker has been provided in the haul road and dust prone area. Dust control measure at the loading and unloading area yet to be implemented. As per the data furnished ambient air quality data confirms the daily limits.</p>
III. Water quality monitoring and preservation		
18	In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro- geological study of the area.	<p style="text-align: center;">PARTIALLY COMPLIED</p> <p>As per the information furnished the mining plan envisages intersection of Ground water at Manganese working zone and NOC from CGWA for 1715 m³/day is already vested to JSW which was valid up to 18.01.2022. Renewed NOC from CGWA yet to be furnished.</p>
19	Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six- monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater	Same as General Condition no. 20.

Sl. No.	Stipulated conditions	Compliance
	Department / State Pollution Control Board	
20	Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.	Same as General Condition no. 20.
21	The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall Carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a Year viz. pre- monsoon (April-May). monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.	Same as General Condition no. 20.
22	Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen	<p style="text-align: center;">BEING COMPLIED</p> Mines run off water monitoring data as per the condition has been furnished. Monitored data has been uploaded on the company website along with six monthly compliance. Display board provided at the main gate to display



Sl. No.	Stipulated conditions	Compliance
	(DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J-20012/1/2006- IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.	monitoring data.
23	Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEF&CC annually.	BEING COMPLIED PP submitted that rain water stored in the mined out pits and other settling ponds. As per the hydrological report the annual water recharge estimated reported to be 81258 m ³ /year.
24	Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.	Same as General Condition no. 20.
25	The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.	BEING COMPLIED PP reported total water requirement as 1715KLD. It was informed that rain water collected in pits being utilizing for dust suppression in the mining operations. Fixed water sprinklers, Pressurized mobile water tankers get utilized for dust suppression arrangement for reducing water requirement.
IV. Noise and vibration monitoring and prevention		
26	The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.	BEING COMPLIED Peak particle velocity monitored at 500m distance has been furnished.
27	The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the	BEING COMPLIED PP informed that Illumination and sound is restricted into core zone only. As per the noise level data furnished. Noise level reported to be within norms.

Sl. No.	Stipulated conditions	Compliance																	
	prescribed limits for day /night hours.																		
28	The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including labourers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ labourers are working without personal protective equipment.	<p style="text-align: center;">BEING COMPLIED</p> <p>As per the noise level data furnished, noise level reported to be within 85dBA. PP informed that 514 PPE has been issued on 2023-24.</p>																	
	V. Mining Plan																		
29	The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.	<p style="text-align: center;">PLEASE REFER BELOW</p> <p>As per the approved mining plan production mentioned as 6 MTPA(Iron Ore), 0.036MTPA(Mn Ore) for 2021-22, 8MTPA(Iron Ore), 0.036MTPA(Mn Ore) for 2022-23 and 10 MTPA(Iron Ore), 0.036MTPA(Mn Ore) for 2023-24. The production reported by PP.</p> <table border="1"> <thead> <tr> <th rowspan="2">Period</th> <th colspan="2">Production in Tonnes</th> </tr> <tr> <th>Iron Ore</th> <th>Mn Ore</th> </tr> </thead> <tbody> <tr> <td>2020-21</td> <td>4.48</td> <td>0.0004</td> </tr> <tr> <td>2021-22</td> <td>5.44</td> <td>0.0047</td> </tr> <tr> <td>2022-23</td> <td>5.30</td> <td>0.0052</td> </tr> <tr> <td>2023-24</td> <td>5.63</td> <td>0.0005</td> </tr> </tbody> </table>	Period	Production in Tonnes		Iron Ore	Mn Ore	2020-21	4.48	0.0004	2021-22	5.44	0.0047	2022-23	5.30	0.0052	2023-24	5.63	0.0005
Period	Production in Tonnes																		
	Iron Ore	Mn Ore																	
2020-21	4.48	0.0004																	
2021-22	5.44	0.0047																	
2022-23	5.30	0.0052																	
2023-24	5.63	0.0005																	
30	The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.	<p style="text-align: center;">AGREED UPON</p> <p>PP agreed to abide by the condition.</p>																	
31	The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and	<p style="text-align: center;">PLEASE REFER BELOW</p> <p>As per the approved mining plan production mentioned as 8MTPA for 2022-23 and 10 MTPA for 2023-24.</p>																	

Imahat

Sl. No.	Stipulated conditions	Compliance
	corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEFCC and its concerned Regional Office.	
	VI. Land Reclamation	
32	The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.	BEING COMPLIED During visit top soil dump has not been observed. PP stated that top soil has been utilized for green belt development. Over burden being stacked at three dump sites. Plantation has been done on the slop of the OB Dump. Height of the dump reported to be 20m, 27m,12m, width 240m, 170m, 150m and slope 31°, 22° and 18° respectively. During visit coir matting has been observed at one side of the stacking yard. PP informed that coir matting of 8500 m ² (in 1 st phase) and 7800 m ² (in 2 nd phase) has been completed.
33	The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.	BEING COMPLIED During visit top soil dump has not been observed. PP stated that top soil has been utilized for green belt development. Over burden being stacked at three dump sites. Height of the dump reported to be 20m, 27m,12m, width240m, 170m, 150m and slope31°, 22° and 18° respectively.
34	The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.	PLEASE REFER BELOW Plantation has been observed in part of the dump. PP stated that all the dumps are in active condition and reclamation will be done as per the Approved mining plan & progressive mine closure plan.
35	The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.	AGREED UPON Plantation has been observed in part of slope of the dump. PP stated that all the dumps are in active condition and reclamation will be done as per the Approved mining plan & progressive mine closure plan.

Torahat

Sl. No.	Stipulated conditions	Compliance
36	The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.	BEING COMPLIED Slope stability study has been done. Copy of the report of NIT Rourkela has been submitted to Regional Office.
37	Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.	BEING COMPLIED Settling pond has been observed at the site. As per the information provided three settling tank has capacity of Settling pond has been observed at the site. As per the information provided three settling has capacity of 2478.7 m ³ , 5779.5 m ³ , 6789.7 m ³ has been provided. During visit garland drain has been observed. PP informed that collected water is being utilized for dust suppression. It was also stated that the pits were desilted before monsoon.
38	Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years' data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.	BEING COMPLIED Check dam has been provided to the nala passing through the lease. Settling pond has been observed at the site. As per the information provided three settling has capacity of 2478.7 m ³ , 5779.5 m ³ , 6789.7 m ³ has been provided.
39	The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.	PLEASE REFER BELOW During visit top soil dump has not been observed. PP stated that top soil has been utilized in developing green belt.
	VII. Transportation	
40	No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and	BEING COMPLIED During visit transportation through NH has been observed. During visit checked vehicle was found to be with valid PUC.PP stated that transportation of the minerals has not taken place through villages/ habitations.



Sl. No.	Stipulated conditions	Compliance
	strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centres.	
41	The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipment's like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.	<p style="text-align: center;">PARTIALLY COMPLIED</p> <p>Fixed water sprinkler has been provided in part of the haul road. Water sprinkling has been observed along the haul road by two number of truck mounted tanker of reported capacity 50KI and 16 KL.</p> <p>Dust Suppression System (Dry fog system) has been provided at crusher and screening plant.</p> <p>Generation of fugitive dust emissions are controlled by regular water sprinkling on haul roads and mechanical road sweepers on concrete road, paved areas outside the mine.</p> <p>Water sprinkling has been done on the haul road and vacuum sweeping has been done on the national Highway to control fugitive dust.</p>
	VIII. Green Belt	
42	The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.	<p style="text-align: center;">BEING COMPLIED</p> <p>Safety zone plantation has been observed. PP informed that Gap plantation has been done in the safety zone and more than. 18,600 plantations have been made in the during 2021-22 and 2023-24.</p>
43	The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in	<p style="text-align: center;">BEING COMPLIED</p> <p>As per the document furnished approx. 15600 sampling has been planted during FY 2021-22 and FY: 2022-23 to develop green belt area in 7 Ha. During visit plantation in OB dump area</p>



Sl. No.	Stipulated conditions	Compliance
	consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.	safety zone has been observed.
44	The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.	BEING COMPLIED PP submitted that fodder plots have been developed in the non-mineralized area of the mining lease.
45	The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.	BEING COMPLIED PP furnished a copy of site specific wildlife conservation plan approved by Chief wildlife warden, PCCF(WL)and CWLW with letter no. 988/CWLW-FDWC-FD-0126-2021 dated 31-01-2022.
46	And implemented in consultation with the State Forest and Wild Life Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.	BEING COMPLIED Copy of Wildlife Conservation Plan has been furnished to the Regional office. Rs. 288 lakhs has been deposited on Forest Division, Bonai for implementation of wildlife conservation plan.
	IX. Public hearing and human health issues	
47	The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of Workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be	BEING COMPLIED A doctor has been appointed on the dispensary at the mine. As per the document furnished initial medical examination conducted for 514 employees. PP submitted that regular checkup of BP, diabetes, habitual smoking etc. are being carried out.



Sl. No.	Stipulated conditions	Compliance
	taken. A status report on the same may be sent to MoEFCC Regional Office and DGMS on half-yearly basis.	
48	The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighbourhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.	<p style="text-align: center;">REPORTEDLY COMPLIED</p> <p>PP Submitted that Health risk assessment (HRA) for identification workplace hazards and has been carried out.</p>
49	The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Pin) Estimation in Blood; For Inorganic Chromium-Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock mining, Silica, Gold, Kaolin, Aluminum, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to	<p style="text-align: center;">BEING COMPLIED</p> <p>As per the document furnished initial medical examination conducted for 514 employees.</p> <p>A medical dispensary with full time Doctor has been appointed at mine area for the health check-up of employees and also the locals. It was also informed that regular medical health camps organized in the nearby villages and the records of Health Surveillance are maintained at site, including the results of and the records of Physical examination and tests. It was submitted that only 12 employee are exposed to the manganese whose records are being maintained.</p>



Sl. No.	Stipulated conditions	Compliance
	make arrangements for the safe and secure storage of the records including X- Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).	
50	The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEVI),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age,(d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEFCC annually along with details of the relief and compensation paid to workers having above indications.	<p style="text-align: center;">BEING COMPLIED</p> PP furnished medical examination details indicating none of the employee has developed any persistent back pain, neck pain and the movement of their hip, knee, and other joints have also been found to be normal. None of them have found to suffer loss of any body part and no person working within mine lease was suffering from hearing loss.
51	The Projects Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.	<p style="text-align: center;">BEING COMPLIED</p> PP informed that personnel working in dusty areas are provided with nose mask, safety glass and ear plug with proper safety training.
52	Project Proponent shall make provision for the housing for workers/labours or shall construct labour camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.	<p style="text-align: center;">BEING COMPLIED</p> Provision of Toilets, drinking water, health care facilities has been developed for the workers and truck drivers. Associated in mining operation. A STP has been provided for treatment of domestic waste water.
53	The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in	<p style="text-align: center;">BEING COMPLIED</p> As per the documents furnished CER expenditure reported to be Rs 3.54 Crore on various environmental control measure, parking

Imahet

Sl. No.	Stipulated conditions	Compliance
	the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.	plaza, construction of Bore well, education facility, school bus, , SHG, Solar street light, upgradation of existing dispensary, Health clinic van etc.
X. Corporate Environment Responsibility (CER)		
54	The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O. M No 22-65/20 17-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office, MoEF&CC annually along with audited statement.	BEING COMPLIED As per the documents furnished CER expenditure reported to be Rs 3.5 Crore on various environmental control measure, parking place construction of Bore well, community toilet, education facility, school bus, sewing machine and training, SHG, Solar street light, upgradation of existing dispensary, Health clinic van etc.
55	Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office.	BEING COMPLIED PP reported an expenditure of Rs.2.00 crores during the period of April 2023 to March 2024 on dust suppression, fixed water sprinkling, online monitoring, water sprinkling on NH , OB Dump management etc.
XI. Miscellaneous		
56	The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five Years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.	BEING COMPLIED PP furnished a land use/land cover map based on drone image of 2021.
57	The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	PLEASE REFER BELOW Details of date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work has not been furnished. PP submitted EC has accorded to ex-leasee M/s Aryan Mining & Trading Corporation Pvt. Ltd. Ministry may like to take view in the issue.
58	The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.	BEING COMPLIED Six-monthly compliance for the period Oct 23 to Mar 24 has been submitted to the Regional office.
59	A separate Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to	BEING COMPLIED Environment Management Cell (EMC) structure has been furnished.

Sl. No.	Stipulated conditions	Compliance
	Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.	
60	The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF& CC officer(s) by furnishing the requisite data / information /monitoring reports.	AGREED UPON Cooperation assured by the PP.


Observations:

The PAs have complied or are in process of complying the conditions stipulated by the Ministry. In this context, information/action plans have been sought on following Partially Compliance points:

1. Recommendation of NEERI such as quantification of air emission load for dust load only, mobile water sprinkler at haul road, dry fog type dust suppression system material handling plants (crusher and screen) to minimize air pollution has been implemented. Monitoring of ambient air and fugitive emission data has been furnished with the six monthly compliance. Ambient air quality is being monitored at buffer zone. CO is being measured as a parameter of ambient air quality. During visit checked vehicle was found to be with valid PUC. Noise level monitoring is being carried out. Flow rate measurement of perennial nala is being done. Oil and grease trap has been provided at the vehicle washing bay. Environmental sustainability report has been furnished to the Regional Office. (Condition no. 3)
2. One vacuum sweeping machine has been provided near the mine. Fixed water sprinkler has been provided in part of the haul road. Water sprinkling has been observed along the haul road by two number of truck mounted tanker of reported capacity 50Kl and 16 KL. As per the documents furnished material are being transported to railway siding for shipping and end user. Details of vacuum cleaning in all the transportation road has not been furnished. (Condition no. 6)
3. During visit ore transportation through dumper truck has been observed. PP informed that 24 percent ore are being transported to railway siding (located at a distance of 10 km to 25 km approx.), 51 percent for shipping (located at a distance 300 km approx.) and to the end user (25% located at a distance of 200 km. approx) by dumper. EC was accorded in the year 2019. PP informed that construction of slurry pipeline is under process. The ore/concentrate will be transported from Nuagaon to Paradeep through slurry pipeline. (Condition no. 8)
4. PP submitted that selection of equipment has been made keeping in view the terrain condition. Drill equipped with wet drilling along with dust extractor has been provided. Dust load calculation data has been furnished for PM only. Emission load generation study as report as per the condition has not been furnished. PP informed that inspection and maintenance of all the machineries/ equipment/ transport vehicles are being followed as per manufacturer's instructions/ recommended time schedule and record should be maintained by HEMM/ Maint. Dept. During visit checked vehicle was found to be with valid PUC. Dust load generation with respect to mining operation has been furnished. Emission load generation details as per the condition has not been furnished. PP furnished a land use land cover map based on drone image of the period of August 2021, on drone images supplied by M/s JSW Steel Ltd., Statement and signed by Orissa space Application Centre, Bhubaneswar dated 09.12.2024. (Condition no. 17)
5. Fugitive emission monitoring data has been furnished along with the six-monthly compliance. Fixed water spraying arrangement in haul road in part, water tanker two no to suppress dust at the haul road has been provided. However, water spraying arrangement at the loading and unloading point has not been provided. PP furnished ambient air quality monitoring data of four



- locations along with the submitted six monthly compliance for PM10, PM2.5, SO2, NO2 and CO.. Three online ambient air quality monitoring station has been provided for monitoring of PM10, PM2.5, SO2, NO2 and CO. PP also furnished monitoring data of buffer zone in four locations i.e. Koirra village, Bhanjipali village, Kashira Basti and Segasagi village for PM10, PM2.5, SO2, NO2 and CO. During visit checked vehicle was found to be with valid PUC and transportation is being done through covered trucks. PP submitted that closed container truck is not available in the market for Iron Ore transportation. PP also submitted that slurry pipeline system is under construction for transportation of Iron ore. (Condition no. 18)
6. Concrete road has been constructed at the entry gate to iron ore ore mine. Concrete road to the entry of Mn mine provided. It was submitted that old Kachha road are not in use. Road sweeping machine has been provided to ensure dust free road transport. During visit ore transportation through covered truck has been observed. Air quality has been monitored near Gate no 1. Suggested Ore transport mode yet to be implemented. The EC was accorded on 18.06.2019 five years has already expired. (Condition no. 24)
 7. NOC from CGWA for 1715 m3/day is already vested to JSW which was valid upto 18.01.2022. Renewed NOC from CGWA has not been furnished. (Standard condition no. 11)
 8. Fugitive dust emission monitoring data has been furnished with the submitted six monthly compliances. Water sprinkling by fixed sprinkler has been provided in part of the haul road. Water sprinkler through tanker has been provided in the haul road and dust prone area. Dust control measure at the loading and unloading area yet to be implemented. As per the data furnished ambient air quality data confirms the daily limits. (Standard condition no. 17)
 9. As per the information furnished the mining plan envisages intersection of Ground water at Manganese working zone and NOC from CGWA for 1715 m3/day is already vested to JSW which was valid up to 18.01.2022. Renewed NOC from CGWA yet to be furnished. (Standard condition no. 18)
 10. Fixed water sprinkler has been provided in part of the haul road. Water sprinkling has been observed along the haul road by two number of truck mounted tanker of reported capacity 50Kl and 16 KL. Dust Suppression System (Dry fog system) has been provided at crusher and screening plant. Generation of fugitive dust emissions are controlled by regular water sprinkling on haul roads and mechanical road sweepers on concrete road, paved areas outside the mine. Water sprinkling has been done on the haul road and vacuum sweeping has been done on the national Highway to control fugitive dust. (Standard condition no. 41)


 (डॉ.टी. एच. महतो/Dr. T. H. Mahato)
 वैज्ञानिक-ई / Scientist 'E'

3.1.1. Details of the proposal

Expansion in Narayanposhi Iron & Manganese Ore Mine [ML Area 347.008 Ha (As per DGPS)/349.254 Ha (As per ROR)] with Iron Ore (ROM 10 MTPA & OB 4.216 MTPA) Total Excavation 14.216 MTPA & with Manganese Ore (ROM 0.036 MTPA & OB 0.223 MTPA) Total Excavation 0.259 MTPA along with Mobile Crushing & Screening Plant (400TPHx10 Nos & 250TPHx07 Nos), CPU 2000TPH, Grinding & Beneficiation Plant 6.0MTPA for Mineral Processing & Slurry Pumping Station to transport Iron Ore Concentrate at Sundargarh, Odisha by JSW STEEL LTD located at SUNDARGARH,ODISHA			
Proposal For		Fresh EC	
Proposal No	File No	Submission Date	Activity (Schedule Item)
IA/OR/MIN/482860/2024	J-11015/62/2020-IA.II(M)	24/09/2024	Mining of minerals (1(a))

3.1.2. Project Salient Features

The instant proposal is for Narayanposhi Iron & Manganese Ore mining with enhancement in production capacity of Iron Ore (ROM) from 6 to 10 MTPA & OB 4.216 MTPA with total excavation 14.216 MTPA & existing capacity of Manganese Ore (ROM) 0.036 MTPA & OB 0.223 MTPA with total Excavation 0.259 MTPA along with Mobile Crushing & Screening Plant (400TPHx10 Nos & 250TPHx07 Nos), CPU 2000 TPH, Grinding & Beneficiation Plant 6.0MTPA for Mineral Processing & Slurry Pumping Station to transport Iron Ore Concentrate in the ML area 349.254Ha by M/s Jsw Steel Ltd located at Sundargarh, Odisha.

2. The details of the project as per the document submitted by the Project Proponents are given as under:
 - i. The mine lease area is located between Latitude 21°54'46.07" N to 21°56'23.13" N Longitude 85°13'41.16" E to 85°14'56.56" E. The mine lease area falls under the Survey of India Toposheet No. Core Zone F45N1 (73G/1), F45N5 (73G/5) and Buffer zone: F45N1 (73G/1), F45N5 (73G/5), F45H8 (73F/8), F45H4 (73F/4) and falls in Seismic Zone-II.
 - ii. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and 2 (b) for Mineral Beneficiation falls under Category "A" as the mining lease area is greater than 250 ha and appraised at the Central level.
 - iii. The Project Proponent has obtained the ToR vide letter no.J-11015/62/2020-IA.II (M) dated 31.12.2020 and subsequent amendment vide letter no. J-11015/62/2020-IA.II(M)dated 18.02.2022

iv. Details of Mine Lease:

S.	Prospecting Licen	Date of the	Name of th	Perio	Grante	Mine lease are

No.	Letter of Intent (LoI)/ Grant of Mine lease and Letter No.	Grant	Mineral & (Major/ Minor)	Period of Grant	Granted by	Area in Ha
1.	Issuance of Letter of Intent in favor of JSW Steel Ltd. vide letter no. 2288/S&M/IV(Misc) SM-66/2016(Pt-I)	02.03.2020	Iron & Manganese Ore	03 years	Govt. of Odisha	ML Area 347.008 Ha (As per DGPS)/349.254 Ha (As per ROR)
2	Issuance of Vesting Order in favor of JSW Steel Ltd. vide letter no. 4212/SM IV (B) SM-21/2020	30.05.2020	Iron & Manganese Ore	2 years	Govt. of Odisha	
3	Permanent Vesting Order was issued in favour of JSW Steel Ltd.	15.02.2022	Iron & Manganese Ore	-	-	

S. No.	Details of grant of Mine Lease deed execution	Period of Grant		Name of the Mineral	Mine lease area in Ha
		From	To		
1	Mine Lease was granted & executed in favor of M/s. JSW Steel Ltd.	26.06.2020	25.06.2070	Iron & Manganese Ore	ML Area 347.008 Ha (As per DGPS) / 349.254 Ha (As per ROR)
2.	Mine Lease was registered in favor of M/s. JSW St	27.06.2020	26.06.2070	Iron & Manganese Ore	

eel Ltd.				
----------	--	--	--	--

v. Land Use/Land Cover of the Mine Lease Area:

Private land	4.687 ha
Government land	55.648 ha
Forest land	257.451 Ha
Total Mining lease area (MLA), ha	ML Area 347.008 Ha (As per DGPS)/349.254 Ha (As per ROR)
Private land for crusher, workshop & other infrastructure outside the MLA	All the activities proposed within mine lease
Additional information (if any)	29.222 ha is ST Land

vi. Mining plan details:

Mining Plan including Progressive Mine Closure Plan (approved by Indian Bureau of Mines/DMG)	Letter No.	MPM/A/08-ORI/BHU/ 2021- 22/742
	Date	05.08.2021
	Mineral & (Major/ Minor)	Major
	Mine Lease Area, Ha	ML Area 347.008 Ha (As per DGPS)/349.254 Ha (As per ROR)
	Validity	2021-22 to 2024-25

Additional information (if any)	<p>Mining Plan along with Progressive Mine Closure Plan was Approved by IBM, Bhubaneswar vide letter no. M P/A/14-ORI/BHU/2020-21/994, dated 08.09.2020.</p> <p>Modification of Mining Plan along with Progressive Mine Closure Plan has been approved by Indian Bureau of Mines (IBM), Bhubaneswar vide Letter No. MPM/A/08-ORI/BHU/2021-22/742, dated 05.08.2021 for Iron & Manganese Ore over an area of 347.008 Ha (As per DGPS)/ 349.254 Ha (as per ROR) for the period 2021-22 to 2024-25 in favor of JSW Steel Ltd.</p>								
Mining Parameters	Quantitative Description								
Method of Mining	Opencast Fully Mechanized Method with Crushing, Screening, CPU and Beneficiation Plant (Proposed)								
Drilling/Blasting	<table border="1"> <thead> <tr> <th>Parameter</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Bench Height</td> <td> 9m for Iron Ore Zone 6m for Manganese Ore Zone </td> </tr> <tr> <td>Bench Width</td> <td> 23m for Iron Ore Zone 15m for Manganese Ore Zone </td> </tr> <tr> <td>Depth of Blast hole</td> <td>9.9m for Iron Ore Zone</td> </tr> </tbody> </table>	Parameter	Description	Bench Height	9m for Iron Ore Zone 6m for Manganese Ore Zone	Bench Width	23m for Iron Ore Zone 15m for Manganese Ore Zone	Depth of Blast hole	9.9m for Iron Ore Zone
Parameter	Description								
Bench Height	9m for Iron Ore Zone 6m for Manganese Ore Zone								
Bench Width	23m for Iron Ore Zone 15m for Manganese Ore Zone								
Depth of Blast hole	9.9m for Iron Ore Zone								

	<table border="1"> <tbody> <tr> <td></td> <td>6.1m for Manganese Ore Zone</td> </tr> <tr> <td>Burden</td> <td>3m for Iron Ore Zone 2m for Manganese Ore Zone</td> </tr> <tr> <td>Spacing</td> <td>4m for Iron Ore Zone 2.5m for Manganese Ore Zone</td> </tr> <tr> <td>Hole diameter</td> <td>150/115 m for Iron Ore Zone 32m for Manganese Ore Zone</td> </tr> <tr> <td>Powder Factor</td> <td>7 Tonne/Kg</td> </tr> </tbody> </table>		6.1m for Manganese Ore Zone	Burden	3m for Iron Ore Zone 2m for Manganese Ore Zone	Spacing	4m for Iron Ore Zone 2.5m for Manganese Ore Zone	Hole diameter	150/115 m for Iron Ore Zone 32m for Manganese Ore Zone	Powder Factor	7 Tonne/Kg
	6.1m for Manganese Ore Zone										
Burden	3m for Iron Ore Zone 2m for Manganese Ore Zone										
Spacing	4m for Iron Ore Zone 2.5m for Manganese Ore Zone										
Hole diameter	150/115 m for Iron Ore Zone 32m for Manganese Ore Zone										
Powder Factor	7 Tonne/Kg										
Geological Reserves	181.036 Million Tonnes Iron ore and 0.538 Million Tonnes Manganese Ore										
Mineable Reserves	164.79 Million Tonnes Iron ore and 0.508 Million Tonnes Manganese Ore										

Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/Waste, MTPA)	Iron Ore (ROM: 10 Million TPA & OB: 4.216 Million TPA), Total Excavation: 14.216 Million TPA and Manganese Ore (ROM: 0.036 MTPA & OB: 0.223 MTPA), Total Excavation: 0.259 Million TPA
Life of mine	17 years for Iron Ore and 14 Years for Manganese Ore.
Mine Bench Height & Bench Width	Bench Height: 9m (Iron Ore Zone); 6m (Manganese Ore Zone) Bench Width: 10-12m (Iron Ore Zone); 15m (Manganese Ore Zone)
No. of Mine Benches	9 Nos. in Quarry-3/4 12 Nos. in RF Pit 6 Nos. in Mn Quarry-5
Existing Depth, m bgl	The existing bottom RL in: 507 m
Ultimate Depth of Mining, m bgl	405 m
Ground Water Table, m bgl	Likely depth of water table is of 5 m (at RL545 m) general surface level (at RL550 m) in rainy season and 8m (at RL542 m) in dry season. Mn Quarry-5 has touched the ground water at 540m RL.
Details of ground water interaction	Yes (Mn Quarry-5 has touched the ground water at 540m RL)
Individual bench slope	450 OB 850 Quarry-3/4, RF Pit and Mn Quarry-5
Overall pit slope	37.50 for Iron Ore zone and 310 for Manganese Ore zone

<p>Details of existing/ proposed Crusher</p>	<p>Existing: Stationary crushing & screening plant: 1 x 350 TPH, Mobile crushing & screening plant: 1 x 150 TPH & 1 x 100 TPH, Mobile screening plant: 3 x 200 TPH, 4 x 150 TPH, 2 x 100 TPH, Mobile revolving screening plants- 1 x 10 TPH</p> <p>Proposed: Mobile Crushing & Screening Plant: (400 TPH x 10 & 250 TPH x 07), initially & same will be phased out after Central Processing Unit (CPU): 2000 TPH is commissioned</p>
<p>Mineral Beneficiation</p>	<p>Proposed: 6.0 Million TPA Grinding & Beneficiation Plant</p>
<p>RoM output size</p>	<p>- 10 mm Iron Ore +10-75 mm (58%) and + 6-10 mm (42%) Manganese ore</p>
<p>Transportation details including capacity of dumper/tipper, mode of transport and distance</p>	<p>Dumpers are being/will be used for ore transportation from mine to ore processing area, waste transportation to dump area and processed ore transportation from ore processing area to stacking yard. Initially the iron ore will be sent to JSW plants and other end users through Road/ Railway/ Sea-ways. After commissioning of Grinding & Beneficiation Plant, it will be processed and transported through slurry Pipeline/ Road/ Railway/ Pipe Conveyor.</p>
<p>Generation of Topsoil/OB & its Management during plan period & conceptual period</p>	<p>There is no top soil cover in the Iron Ore mineable area. The top soil cover from the Mn working quarry will be scrapped and stacked at the earmarked site. Total waste generation during plan period from the iron ore zone will be 64, 81,289 cum and 4, 41,971 cum from manganese ore zone. At conceptual stage from the Iron, ore zone will be 34, 20,341 cum and 7, 80,834 cum from manganese ore zone.</p>

	OB is being & will be used for the backfilling of excavated area.		
Generation of Mineral Rejects/ Waste & its Management during plan period & conceptual period	<p>Iron ore with <45% Fe (laterite, shale, BHJ/BHQ) and manganese ore processing generate significant waste, including 30% from beneficiation, 78% intercalated waste, and 10% Mineral Rejects, temporarily stored for future use.</p> <p>During Plan period from Iron ore zone; 85,00,000 cum and from Mn ore 14,400 cum Mineral Reject will be generated.</p> <p>At conceptual stage, from Iron ore zone: 1,38,04,020 cum and from Mn ore 1,00,107 cum Mineral Reject will be generated.</p>		
vii. Water requirement			
Total water requirement	13,632 m ³ /day	Fresh water	980 KLD (GW) + 1102 KLD (Dewatering)+ 11550 KLD (SW)
		Treated water (Domestic)	70 KLD (treated through STP capacity 80 KLD)
Source	Surface water, ground water sources, rain water harvesting pond, borewell and from manganese pit		
Permission for withdrawal/intersection along with details of grant and its validity	Renewal of NOC from CGWA for Ground water withdrawal (980KLD) & for dewatering (1102KLD) was obtained, vide NOC No. CGWA/NOC/MIN/REN/2/2024 /10057 was obtained dated 17.10.2024 and valid till 18.01.2026.		

	Permission regarding surface water withdrawal for 4,000 m ³ /hr (96,000 m ³ /day) has been obtained by the Department of Water Resources, Odisha dated 28.11.2023.	
Additional information (if any)	Total water requirement will be 553cum/hr for beneficiation/ Grinding & Slurry Pumping. Further, for domestic consumption it has been planned to utilise ~15 cum/hr of water. Therefore, total water requirement will be 568m ³ /hr (13,632 m ³ /day) and will be met from surface water, ground water sources, rainwater-harvesting pond, borewell and from manganese pit.	
viii. Nearest village / town/ highway/railway station/ water bodies		
Particular	Particular's Name	Distance & Directions
Village	Village Kashira	~0.3 km in East Direction
Town/City	Barbil	~26 km in NE direction
Highway	NH-215 (Earlier known as NH-520)	Passing through ML Area
Interstate Boundary	Odisha – Jharkhand	~ 8.9 km in North direction
Railway Station/ Railway line	Barsuan	~15.2 km in SW direction
Water Bodies	Karo Nadi	Adjacent in NW direction and at some places overlapped to mine lease
	Suna Nadi	~6.7 km in East direction
	Orahari Nallah	Adjacent to ML boundary in S

		W direction
	Kashira Nallah	Flowing through ML Area
	Narayanposhi Nallah	Flowing through ML Area
	Samij Nallah	~3.8 km in NW direction
	Kalta Nallah	~4.0 km in NNW direction
	Teherei Nallah	~5.7 km in ESE direction
	Kalmang Nallah	~6.3 km in ENE direction
	Erua Nallah	~6.7 km in WNW direction
	Gera Nallah	~7.8 km in West direction
	Topadihi Nallah	~8.0 km in NE direction
	Khajurdihi Nallah	~8.0 km in SE direction
	Geria Nallah	~8.8 km in WSW direction
Forest	No Protected Forest within 10km radius.	
	Kathamala RF	within ML area
	Mendhamaruni RF	~1.0 km in East direction
	Karo RF	~1.3 km in North direction
	Tortha RF	~1.5 km in NW direction

	Reserved Forest	~2.8 km in South direction
	Sarakanda RF	~5.0 km in South direction
	Uliburu RF	~6.4 km in North direction
	Khajurdihi RF	~7.2 km in SSE direction
	Tholkabad RF	~7.8 km in North direction
	Karampada RF	~8.7 km in North direction
	Lakrhaghat RF	~8.7 km in NE direction
	Siddhamath RF	~9.3 km in ENE direction

ix. Presence of Environmentally Sensitive areas in the study area

Forest Land/ Protected Area/ Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Letter no. , date of grant and remarks
Forest Land within the mine lease area and (if yes) status of Forest Clearance	Yes	<ul style="list-style-type: none"> · Forest Clearance (Stage-II) for diversion of 244.327 ha including 184.591 ha of virgin land vide letter no. F. No.8-34/2000-FC (Vol-I) dated 15.11.2007 and vested to JSW · FC (Stage II) transferred to JSW for 238.201 ha forestland vide No. FE-DIV-FLD-0067-2022-17050/FE&CC, dated 22.09.2022 · Application for diversion of balance forest land i.e. 19.256 ha (including 1.014 ha safety zone) has been submitted vide Letter No. JSW/S/CO/2023/615, dated 27.09.2023. · NPV Amount of Rs. 19,30,88,250/- was submitted to the DFO by JSW Steel Ltd. Ex lessee paid Rs. 18,39,40,850/- as NPV. Total NPV

		paid = 37,70,29,100 /- (NPV has been paid for or entire forest land by JSW) on 10.06.2020
National Park	No	Karo – Karampada Elephant Corridor (~7.7 Km from the Mine lease area in North direction)
Wildlife Sanctuary	No	
Elephant/Tiger Reserve	No	
Eco-Sensitive Zone(ESZ)/Eco-Sensitive Area(ESA)	No	-
Coastal Regulation Zone (CRZ)	No	-
Schedule-I species (Nos. and name of schedule-I species with authenticated letter)	Yes	Total 3 species i.e. Elephas maximas (Indian Elephant), Melursus ursinus (Sloth Bear) and Python molurus (Indian Python) of Schedule I according to (IWP A) Indian Wildlife Protection Act' 1972 was recorded in the study area during field survey.
Wildlife Conservation Plan	Yes	Site-specific Wildlife Conservation Plan for 03 Schedule-I Species i.e. Elephant, Sloth Bear & Indian Python has been approved from PCCF & CWW vide letter no. 988/CWLW-FDWC-FD-0126/2021, dated 31.01.2022. Budget proposed for conservation of the same is Rs. 746.173 Lakh.

x. Green belt/plantation details:

Proposed area for green belt/ plantation and no. of saplings proposed	<p>At conceptual stage, greenbelt/plantation will be carried out on 317.215 ha area.</p> <p>Nos. of saplings at conceptual stage 793038 @ 2500/ha</p>
---	---

Budget for green plant & plantation till the end of life of mine.	Rs. 15.86 Crore
Budget for nursery	Rs. 30.82 Lakh
Details of existing plantation and its survival rate	At present, 32.17 ha area had been covered under the greenbelt/plantation with 80425 nos. of saplings Survival Rate 90%.
No. of tree cuts in the mine lease area and compensatory afforestation	NA
Particulars for Green belt/plantation	Area covered (In Ha)
7.5 m barrier & non-mineralized zone	40.611
50 m safety zone of nallah, roads, electric lines	
500 m safety zones of nearest habitation villages	-

xi. Baseline detail:

Baseline Data (Air / Water / Noise / Soil / Hydro geological study/ Traffic Study/ others)	
Period of baseline data collection	December 2023 to February 2024
Season (Summer/Pre-monsoon/Post-monsoon)	Winter Season

soon/Winter)	
Predominant Wind direction (From)	North West
Ambient Air Quality (no. of locations) and results	10
Noise level (no. of locations) and results	10
Water Quality (no. of locations) and results	Ground water: 08
	Surface water: 07
Soil Quality (no. of locations) and results	08
Hydro geological study and results	Detailed hydrogeology study has been carried out by Geo Climate Risk Solutions Pvt. Ltd. in June, 2023.

xii. Public Hearing (PH) Details:

Advertisement for PH with date (name of major national daily and one regional vernacular daily newspaper)	National Level/Local Level: "The Times of India" & "The Dharitri" on 21.04.2022
Date of PH	23.05.2022 at 10:00 AM
Venue	Open field in front of proposed Indoor Stadium, Dhubl abeda village under Koira Block in the District of Sundargarh.
Chaired by	Dr. Binod Bihari Dash, Regional Officer, SPCB Rourkela.

	Shri Shiv Shankar Toppo, Additional District Magistrate, Sundargarh
Main issues raised during PH	Employment, Drinking Water Facility, Infrastructure, Education, Pollution, Plantation, Nearby Development, Medical Facilities etc.
Budget proposed for addressing issues raised during PH over 3 years	610 lakhs

xiii. Details of CTE/CTO, Certified Compliance Report, Certified Production Details from the inception of the mine:

Particulars	Details of Letter along with date of grant and validity															
Consent to Establish	Vide letter no. 536/IND-II-CTE 6207, dated 14.01.2019															
Consent to Operate	Vide letter no. 4651/IND-I-CON-2258, Consent Order No. 2944, dated 30.03.2024 & same is valid up to 31.03.2026															
Certified Compliance Report and Inspection date	Certified Compliance Report vide file no. 101-1040/18/EPE, dated 19.09.2024. Action Taken Report for partially complied conditions has been submitted to Regional Office, MoEF&CC, Bhubaneswar on 24.09.2024. Date of Inspection: 30.08.2024															
Certified Production Details from the inception of the mine (in tabular form against the EC capacity)	<table border="1"> <thead> <tr> <th rowspan="2">Period</th> <th colspan="2">Production in Tonnes</th> </tr> <tr> <th>Iron Ore</th> <th>Mn Ore</th> </tr> </thead> <tbody> <tr> <td>2020-2021</td> <td>4476524</td> <td>496.518</td> </tr> <tr> <td>2021-2022</td> <td>5443454</td> <td>4752.28</td> </tr> <tr> <td>2022-2023</td> <td>5296717</td> <td>5191.404</td> </tr> </tbody> </table>		Period	Production in Tonnes		Iron Ore	Mn Ore	2020-2021	4476524	496.518	2021-2022	5443454	4752.28	2022-2023	5296717	5191.404
	Period	Production in Tonnes														
		Iron Ore	Mn Ore													
	2020-2021	4476524	496.518													
	2021-2022	5443454	4752.28													
2022-2023	5296717	5191.404														

	2023-2024	5627775	554.00
--	-----------	---------	--------

xiv. Rehabilitation & Resettlement (R&R):

R & R details	This is an existing mine and expansion will be carried out within existing mine premises.
---------------	---

xv. Court case details:

Court Case, No and its present status	<p>A court case is pending against the Project at Odisha High Court with order no. WP (C) 24918/2020 regarding the refund of excess stamp duty paid during the time of registration of lease deed.</p> <p>As per the judgement of Hon'ble High court of Odisha dated 09.11.2020, it mention that: "The impugned levy of differential stamp duty paid by the petitioner-company on its mining lease deeds pursuant to demands dated 26.06.2020 shall be subject to final outcome of the writ petition".</p>
Undertaking by Project Proponent w.r.t court case	Project Proponent has submitted an undertaking with regards to the court cases and it mentioned that on the case

xvi. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	PP has submitted the an undertaking by way of notarized affidavit bearing no P072261 dated 15.04.2024 stating that the proposal does not involve violation of Ministry's OM dated 30.05.2018.
Undertaking by Project Proponent in EIA/EMP report	An Undertaking has been submitted along with EIA-EMP report.

Undertaking by Consultant in EIA/EMP report	Consultant has submitted the undertaking vide letter dated 21.06.2024 for the EIA/EMP report.
Plagiarism Certificate	PP has submitted the certificate dated 21.06.2024.

xvii. Details of the Environmental Management Plan (EMP):

Activities	Capital cost (Crores)	Recurring cost (Lakhs/annum)
Air, Noise, Water, Green belt/ Plantation etc.	Rs. 33.91/- crore including Rs. 7.46 Crore for Wildlife Conservation Plan	4.52 Crore

xviii. Details of project cost and employment:

Particulars	(Rs. In Crore)
Total cost of EMP (Capital Cost of EMP + capital cost of Public Hearing)	Capital cost for EMP is Rs. 33.91 Crore including Rs. 7.46 Crore for Wildlife Conservation Plan and Budget proposed for addressing the issues raised during the Public Hearing: Capital Cost: Rs. 610 Lakh
Project Cost	Total cost of the project is Rs. 960 Crores
Employment (Nos)	Existing: 500, Additional: 452 & Total: 952

xix. The PP has submitted the additional information on 23.09.2024. The PP has submitted the

following information vide letter dated 24.09.2024 as given below:

S.No	Additional information	Reply by project proponent
1	The Project Proponent needs to submit the latest Certified Compliance Report in accordance with Ministry's OM dated 08.06.2022.	Project Proponent has submitted their reply vide letter dated 24.09.2024 and submitted the certified compliance report dated 19.09.2024. Project Proponent vide letter dated 20.09.2024 submitted the action taken report to IRO, MoEF&CC.

3.1.3. Deliberations by the committee in previous meetings

N/A

3.1.4. Deliberations by the EAC in current meetings

The instant project proposal pertains to the Narayanposhi Iron and Manganese Ore Mine, involving an enhancement in production capacity of Iron Ore (ROM) from 6 MTPA to 10 MTPA, with OB at 4.216 MTPA and a total excavation of 14.216 MTPA. The existing production capacity of Manganese Ore (ROM) is 0.036 MTPA, with OB at 0.223 MTPA and a total excavation of 0.259 MTPA. The proposal includes the installation of a Mobile Crushing & Screening Plant (400 TPH x 10 units and 250 TPH x 7 units), a CPU of 2000 TPH, a Grinding & Beneficiation Plant with a capacity of 6.0 MTPA for mineral processing, and a Slurry Pumping Station to transport Iron Ore Concentrate within the ML area of 349.254 ha by M/s JSW Steel Ltd, located at Sundargarh, Odisha.

The Project Proponent and Consultant presented the KML file, outlining the site's features to the committee members. PP informed that NH-215 and the Rajamunda–Rimuli road pass through the ML area. The Karo-Karampada Elephant Corridor is located 7.7 km north of the ML area. PP stated that no protected forests exist within a 10 km radius of the project area, although the Kathamala Reserve Forest (RF) lies within the ML area, with several other RFs, including Mendhamaruni, Karo, Tortha, and Siddharnath, located within a 1-9 km range. PP explained that the lease was acquired after successfully bidding on 24.06.2020, with the mine lease executed and registered in favor of M/s JSW Steel Limited on 26.06.2020 and 27.06.2020, respectively. The lease is valid until 26.06.2070. PP also confirmed that the existing EC from the previous lessee was transferred to M/s JSW Steel Ltd under the provisions of

S.O. 2817(E) dated 13.07.2021 (auto transfer under Section 8B), with an acknowledgment of registration on the PARIVESH portal regarding the transfer of the EC.

PP further stated that the Karo River flows adjacent to the ML area in the northwest direction and, in certain sections, overlaps with the ML area. Additionally, the Orahari Nallah runs adjacent to the ML area in the northwest, while the Kashira Nallah and Narayanposhi Nallah traverse through the ML area. In response, the EAC directed the Project Proponent to submit a detailed protection plan for the river and the nallahs, outlining measures to prevent any potential adverse impacts on these water bodies due to mining activities.

The EAC enquired about the current blasting practices within the ML area and the measures implemented to safeguard vehicles travelling on the adjacent road/highway. PP stated that they employ controlled blasting techniques. However, the EAC recommended that PP engage a reputable national institute to conduct comprehensive blasting and vibration studies to measure fly rock distances and air overpressure. Additionally, the EAC advised PP to submit a detailed mitigation plan to ensure the safe and uninterrupted passage of vehicles during blasting operations.

During the presentation, the EAC noted that the PP proposed a water requirement of 568 m³/hr for mining operations and an additional 13,272 m³/day for beneficiation and slurry pumping, with 2,082 m³/day sourced from groundwater and 11,550 m³/day from surface water, specifically the Baitarni River. The EAC expressed concern that the proposed water requirement is excessive and may adversely impact local water availability.

The EAC further inquired about the rationale for constructing a 302 km pipeline instead of adopting ore transportation methods recommended by NEERI. In response, PP explained that, currently, dumpers are being used for transporting ore from the mine to the processing area, waste to the dump area, and processed ore to the stacking yard. Initially, iron ore will be sent to JSW plants and other end users via road, rail, or sea routes. Post-commissioning of the Grinding & Beneficiation Plant, ore will be processed and transported using a slurry pipeline, road, railway, or pipe conveyor.

The EAC took note of PP's explanation and directed the PP to submit a detailed action plan for ore transportation in alignment with NEERI's recommendations, specifically for the interim period until the slurry pipeline is operational. Additionally, the EAC advised the PP to revise its water requirement, considering current local consumption patterns and potential future needs, to ensure sustainable resource use.

Further, the EAC noted the presence of dense vegetation and plantation along stretches of National Highway-215 and the Rajamunda-Rimuli Road. The committee advised the PP to undertake plantation

activities along the vacant stretches of these roads to enhance green cover and minimize environmental impact.

Additionally, the EAC observed that some mining activities appeared to have been undertaken near the common boundary on the northern side of the ML area. In response, the PP clarified that no mining activities had been conducted at the boundary of the ML area. The EAC advised the PP to submit a certificate from the State Directorate of Mines and Geology (DMG) confirming that no mining activities were undertaken in the specified area.

Regarding the existing forest land within the ML area, the EAC inquired about the status of the Forest Clearance (FC) Stage-II. The PP responded that out of a total of 347.008 ha (as per DGPS), 257.451 ha is forest land. The PP further clarified that the erstwhile lessee had obtained FC Stage-II for 238.201 ha, and the PP has applied for Stage-I FC for the remaining 19.256 ha of forest land.

The EAC advised the PP to submit a copy of the Stage-I FC approval, along with the transfer of FC in its name. Additionally, the EAC requested the PP to provide the status of Scheduled Tribe (ST) land within the ML area.

The EAC further directed the PP to submit an action plan for the protection of schools located near the ML area, ensuring that the operations do not affect the safety or well-being of the students and staff. Additionally, the EAC advised the PP to incorporate and expand its fleet of electric vehicles for use in transportation within the project area, in line with sustainability goals and to reduce environmental impact.

In view of the above, the Committee **deferred** the proposal and asked to submit the following requisite information:

1. The Project Proponent (PP) needs to submit a protection plan for villages and schools located within or adjacent to the ML area.
2. PP is required to submit a comprehensive protection plan for the rivers and nallahs flowing within or adjacent to the ML area.
3. PP must engage a reputed national institute to conduct blasting/vibration studies, including fly rock distance studies.
4. PP is required to submit an action plan for the transportation of ore, in line with the NEERI recommendations.
5. PP needs to revise its proposed water requirements, taking into account current local consumption and future requirements.
6. PP is required to submit an action plan to reduce diesel consumption, increase renewable energy use, and adopt other measures to reduce environmental impact.

7. PP needs to obtain a certificate from the Department of Mines and Geology (DMG) confirming that no mineral is present in the ML area.
8. PP must submit a copy of the Stage-I Forest Clearance (FC) for 19.256 ha of forest land, along with the transect survey report.
9. PP is required to submit the status of Scheduled Tribe (ST) land within the ML area, detailing any specific details.

3.1.5. Recommendation of EAC

Deferred for ADS

3.2. Agenda Item No 2:

3.2.1. Details of the proposal

Gandhamardan Iron Ore Mining Project by ODISHA MINING CORPORATION LIMITED located at KENDUJ HAR, ODISHA			
Proposal For		Fresh EC	
Proposal No	File No	Submission Date	Activity (Schedule Item)
IA/OR/MIN/481548/2024	IA-J-11015/33/2024-IA-II(NCM)	29/06/2024	Mining of minerals (1(a))

3.2.2. Project Salient Features

The instant proposal is for amalgamation of Gandhamardan Block-A Iron Ore block (0.35 MTPA) with ML area of 618.576 ha and Gandhamardan Block-B Iron Ore block (9.12 MTPA) with ML area 1590.8673 ha as a single and composite Mining Lease to be named as Gandhamardan Iron Ore Mining Lease with the total ML area of 2209.4433 ha without change in total production capacity of 9.47 MTPA by M/s Odisha Mining Corporation Ltd for already issued EC dated 16.01.2009 & 03.02.2009 located at Keonjhar District, Odisha.

The Project proponent has requested the Ministry for Amalgamation of two contiguous mining leases Gandhamardan Block-A Iron Ore & Gandhamardan Block-B Iron Ore for Odisha Mining Corporation Ltd (OMC). The PP has submitted the existing, proposed ML area and production capacity as mentioned below:

Existing Mining	Existing Min	Proposed Amalgama	Remarks

December 26, 2024

To

Shri Bhupender Yadav

Hon'ble Minister of Environment, Forest and Climate Change

Government of India

New Delhi.

Email id: mefcc@gov.in, ps2mefcc@gov.in

Subject: Gross violations of EIA 2006 and E.P.Act 1986 by JSW Steel limited by constructing ore central processing unit of 2000TPH, Grinding & Beneficiation plant 6.0MTPA Mineral Processing & Slurry piping station within mining lease of Naryanposhi iron & manganese ore mine (ML area 347.008ha (as per DGPS)/ 349.254ha (As per RoR) without recommendations of Expert Appraisal Committee and grant of prior environmental clearance.

Ref: 1. JSW Proposal No. IA/OR/MIN/482860/2024 and file No. J-11015/62/2020-IA.II(M)

2. Our letter dated 07.11.2024.

3. Our letter dated 25.11.2024

Dear Sir / Madam,

Referring to the subject matter, the proposal of JSW Steel Ltd regarding the Narayanposhi Iron & Manganese Ore Mine, Koira, is scheduled for the upcoming Expert Appraisal Committee (EAC) meeting on 27.12.2024. Through our letters dated 07.11.2024 and 25.11.2024, we apprised your office of the gross violations of the Environment Protection Act, 1986, and EIA Notification, 2006, committed by JSW Steel Ltd. These violations include completing construction of a 2000 TPH Central Processing Unit and a 6.0 MTPA Beneficiation Plant within the mining lease area prior to obtaining EAC recommendations and the mandatory Environmental Clearance (EC).

To date, no visible action has been initiated to address this issue. This lack of enforcement undermines the regulatory framework and poses significant environmental risks to the region. It is concerning that the EAC meeting on **29.10.2024** failed to recognize these violations.

We are resubmitting the following key violations, which require your urgent attention:

Here, we are resubmitting the following violations of E.P. Act by JSW Steel Ltd at the said mine which needs your urgent attention:

1. **Unauthorized construction:** JSW Steel Ltd completed construction of a 2000 TPH Central Processing Unit and a 6.0 MTPA Beneficiation Plant within the mining lease area before obtaining EAC recommendations or the mandatory EC. This constitutes gross violations of the EIA Notification, 2006, and the Environment Protection Act, 1986. Satellite images from 2023 and November 2024 clearly show these facilities constructed without prior environmental clearance or Consent to Establish.



Construction of 6MTPA iron ore beneficiation plant by JSW at Narayanposhi mine in **2023**.



Construction of 6MTPA iron ore beneficiation plant by JSW at Narayanposhi mine in **2024**.

The enlarged view of the beneficiation plant is shown below



Aerial view of 6.0MTPA iron ore beneficiation plant by JSW Steel Ltd at Narayanoshi mine **2024**.

2. **Serious environmental hazard:** As the mine area is undulating hills with altitudes varying from 545m to 640m above MSL, general slope of the area is towards north and National Highway NH215 and Rajamudna-Rimuli road pass through the ML area through the mining lease area. The operation of the said illegal high-capacity beneficiation plant will generate huge quantity tailings whose improper management may lead to slippage to NH-215.
3. Karo river flows adjacent to the ML area in the northwest direction, and in certain sections, overlaps with the ML area. Additionally, the Orahari Nallah runs adjacent to the ML area in the northwest, while the Kashira Nallah and Narayanposhi Nallah traverse through the ML area.
4. **Public Hearing Non-compliance:** Public consultations in affected villages were reportedly not conducted as per mandatory requirements. Public hearing in villages of Harishchandrapur, Koira, Kashira, Kusmdihi, and Kathamala RF for construction 2000TPH Central Processing unit and Grinding & 6.0MTPA Beneficiation plant has not been conducted. It is again violation E.P Act. and EIA 2006
5. **Misrepresentation of Facts:** As can be inferred from the last EAC meeting the proximity of protected reserves, rivers, and critical water bodies to the mining lease area was not transparently disclosed by the project proponent.
6. **Excessive water withdrawal:** The huge water drawl of 11,550cum/day from Baitarani River will severely affect may adversely impact local water availability and when the said river is already stressed due to large-scale mining and only major river in the said mining zone for local inhabitants.
7. As per vested order issued post auction of the said mine, EC for 6.0 MTPA iron ore production and 2.0 MTPA Beneficiation plant issued to erstwhile lessee AMTC was vested to JSW Steel Ltd. The new lessee JSW Ltd, soon after execution of ML, applied to MOEF&CC, GoI for expansion of iron ore production to 10MTPA (ROM) of iron ore, 0.036 million TPA of manganese ore (ROM) along with screening, crushing and 6.0 MTPA beneficiation plant in the lease area, and the Expert appraisal committee has approved the TOR in its 31.12.2020. The project proponent had again applied for

amendment of TOR and proposal was considered in the 45th EAC (Non-Coal Mining) meeting held during 24th, 25th and 27th January, 2022. **The EAC meeting had noted that project proponent JSW Ltd had not carried out the public hearing.**

8. Instead of complying the approved TOR, preparation of EIA and EMP and public hearing as directed in aforesaid EAC meeting, JSW Steel Ltd started construction of 6MTPA iron ore beneficiation plant in 2023 and more than 90% of the project has been completed in 2024. These activities are gross violation of E.P. Act.

Given the potentially catastrophic consequences of this situation and violations of E.P Act, 1986 already occurred by construction of 2000 TPH Central Processing Unit and a 6.0 MTPA Beneficiation Plant within the mining lease area prior to obtaining EAC recommendations and the mandatory EC, we request your good office for the followings:

1. Immediate suspension of mining operations and suspend the Environmental Clearance for the Narayanposhi mine as gross violations of Environment Protection Act 1986 and EIA 2006 already occurred by constructing facilities before recommendations of EAC.
2. A high level investigation team may be send to Narayanposhi mines to know the ground position, examining under what circumstances this project was completed without adhering to necessary public consultations, environmental safeguards, and regulatory approvals.
3. Investigation of designed specifications of all the procured machinery for the said 6.0MTPA beneficiation project and construction of 30mtpa slurry pipeline

This situation demands swift and comprehensive action to address environmental risks, ensure compliance with laws, and uphold the rights and safety of affected communities. It is critical to conduct a site visit to verify the claims and take corrective measures. We trust that your office will act swiftly to address this grave environmental issue and protect the well-being of local communities and the integrity of national infrastructure.

We look forward to your urgent response and the necessary actions being taken.

Yours sincerely,



(Santosh Kumar Mohapatra) Secretary

" Citizen Pannel on Climate Change "

Copy to:

1. The Central Bureau of Investigation, New Delhi, email id: hozdel@cbi.gov.in
2. The Director, Directorate of Enforcement of India, email id: sd.hq-enforce@gov.in
3. The Secretary to Government, MOEF&CC, GOI, email id: secy-moef@nic.in
4. Shri Tanmay Kumar, Special Secretary to Union Government, email id: tanmay.kumar-r@gov.in

5. Dr. Dinesh Misra, Chairman, Expert Appraisal Committee (Non-coal), email id: dmisra56@gmail.com
6. Shri Niranjan kumar Vasu, Member EAC, email id: vasuifs@gmail.com
7. Shri Avijit Ghosh, Member EAC, email id: avijitmining@gmail.com
8. Dr. Asha Rajvanshi, member EAC, email id: asharajvanshi@gmail.com
9. Prof. Pramod Kumar, Member EAC, email id: nita_pramod@yahoo.com
10. Shri. Bandi Ramchandra Reddy, Member EAC, email id: reddyramchandra8858@gmail.com
11. Prof. Devesh Walia, Member EAC, email id: devesh.eac@gmail.com
12. Dr. Suresh Tiwari, Member EAC , smbtiwari@gmail.com
13. Dr. K.G Asha Manjari, Member EAC, email id: kimberlite2016@gmail.com
14. Prof. Dev Dutt Sharma, Member EAC, email id: ddshpu@gmail.com
15. Mr. V. K. Soni, Member EAC, email id: vijay.soni@imd.gov.in
16. Dr. Y. G. Kale, Member EAC, email id: ygkale@ibm.gov.in
17. Shri Mohammad Niyazi, Member EAC, email id: dirsnt.dgms@gmail.com
18. Shri Rajeev Ranjan, Scientist E, Member EAC, email id: Ranjan.rajeev@nic.in



ADS Reply

Query :	ADS
Query Description :	<p>The Project Proponent has submitted that Forest Clearance over 244.327 ha and General Approval under Section 2(iii) of the FC Act, 1980, for the balance 14.864 ha were confirmed by DFO, Bonai vide letter dated 13.05.2015.</p> <p>However, PP needs also to explain how such confirmation would be applicable to the present proposal for diversion of 19.256 ha of undiverted forest land. PP needs to clarify this aspect with specific reference to the applicability of the said General Approval to the 19.256 ha area, along with supporting documents.</p>
Query Document :	
EDS Raised On :	28/08/2025
Reply :	We are hereby submitting the ADS reply for your kind appraisal.
Reply Document Name :	ADS Reply_28.08.2025
Reply Document :	ads reply_28.08.2025.pdf Preview
Replied On :	02/09/2025



Regd. Office: JSW Centre
Bandra Kurla Complex,
Bandra (East), Mumbai – 400 051
CIN : L27102MH1994PLC152925
Phone : +91 22 4286 1000
Fax : +91 22 4286 3000
Website : www.jsw.in
Date: 02.09.2025

Ref. No. JSW/S/CO/2025/401

To

The Member Secretary – EAC (Non-Coal Mining),
Ministry of Environment, Forest & Climate Change
Govt. of India, Indira Paryavaran Bhavan,
Jorbag Road, Aliganj, New Delhi – 110003

Subject: Environmental Clearance for Expansion in Narayanposhi Iron and Manganese Ore Mine [ML Area: 347.008 ha (As per DGPS)/ 349.254 ha (As per ROR)] with Iron Ore (ROM: 10 Million TPA & OB: 4.216 Million TPA), Total Excavation: 14.216 Million TPA and with Manganese Ore (ROM: 0.036 MTPA & OB: 0.223 MTPA), Total Excavation: 0.259 Million TPA along with Mobile Crushing & Screening Plant: (400 TPH x 10 Nos & 250 TPH x 07 Nos), Central Processing Unit (CPU): 2000 TPH, Grinding & Beneficiation Plant: 6.0 Million TPA for Mineral Processing & Slurry Pumping Station to transport Iron Ore Concentrate located at Villages: Harischandrapur, Koira, Kashira, Kusumdihi and Kathamala RF, Tehsil: Koira, District: Sundargarh, State: Odisha by M/s. JSW Steel Ltd. **Submission of ADS Regarding**

- Ref:**
- i. Proposal No : IA/OR/MIN/482860/2024
 - ii. MoEFCC File No : J-11015/62/2020-IA.II(M)
 - iii. Proposal was recommended by the EAC vide minutes of 38th EAC-NCM meeting held on 27.12.2024 and in Minutes of 46th EAC-NCM held on 25.06.2025
 - iv. ADS Raised on 30.07.2025 & reply submitted on 24.08.2025
 - v. ADS Raised on 28.08.2025

Respected Sir,

With reference to the aforesaid subject & above cited matter; we would like to apprise your good self that the above-mentioned proposal was considered and recommended for Environment Clearance in 38th & 46th EAC Meeting respectively.

After recommendation of the proposal, Additional Details were sought on 30.07.2025 and Reply was submitted on 24.08.2025.

Again, Additional Details were sought on 28.08.2025 and in compliance of the same, we are submitting the reply for your kind consideration.



Regd. Office: JSW Centre
 Bandra Kurla Complex,
 Bandra (East), Mumbai – 400 051
 CIN : L27102MH1994PLC152925
 Phone : +91 22 4286 1000
 Fax : +91 22 4286 3000
 Website : www.jsw.in

<p>ADS Point</p>	<p>The project proponent has submitted that Forest Clearance over 244.327 ha. And General approval under Section 2(iii) of the FC Act, 1980, for the balance 14.864 ha were confirmed by DFO, Bonai vide letter dated 13.05.2015.</p> <p>However, PP needs also to explain how such confirmation would be applicable to the present proposal for diversion of 19.256 ha of un-diverted forest land. PP needs to clarify this aspect with specific reference to the applicability of the said General approval for the 19.256 ha area, along with supporting documents.</p>
<p>Reply</p>	<ul style="list-style-type: none"> ➤ In view of the amendment of MMDR Act 1957 in 2015 and insertion of section 8A making provision for extension of existing mining lease upto 31st March 2020 or of 50 Years (whichever is later), MoEF&CC has examined the matter and clarified vide guideline No.- F. No 11- 599/2014-FC, Dt- 1st April 2015 (Annexure-1) point 3 (i) therein that in case of mining leases having forest land in part or in full, approval of central govt under section-2(iii) of the FC Act, for the entire forest land located within a mining lease shall be obtained before execution of mining lease in accordance with MMDR 1957. ➤ In continuation with the above requirement of approval of central govt under section-2(iii) of the FC Act for the entire forest land located within a mining lease, provision for general approval is made at point no 3 (v), upon realization of NPV over the entire forest land, in case of existing leases having approval under section 2 of the FC act for part of the forest land has been obtained. This enabled the coverage of entire forest area within the mining lease for execution of lease in accordance with MMDR 1957 In case of Narayanposhi Mining Lease the fact of applicability of general approval and its coverage over entire area is confirmed by the Govt. of Odisha Vide letter of DFO Bonai addressed to the Collector Sundergarh dated- 13.05.2015 (Annexure-2) confirming realization of NPV over the entire forest area. Accordingly, supplementary lease deed was executed between the erstwhile lessee (M/s AMTC) and Govt of Odisha 17.12.2015. ➤ Further, during the Mining lease auction process in accordance with sec 8A of MMDR Act 2015 by Govt. of Odisha, JSW declared as the preferred bidder in 2020 for Narayanposhi Iron and Manganese ore block and all the statutory clearance available with ex- lessee got vested with JSW as per provisions of MMDR Amendment Act 2015. ➤ In view of the amendment in MMDR Act, MoEF&CC issued the guideline dated 31st March 2020 (Annexure-3) to facilitate the vesting and further process of lease execution upon payment of lumpsum advance NPV @ 7.5 lakh/Ha for the entire area. With reference to this, Govt of Odisha

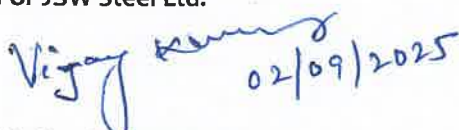
· **Regd. Office:** JSW Centre
Bandra Kurla Complex,
Bandra (East), Mumbai – 400 051
CIN : L27102MH1994PLC152925
Phone : +91 22 4286 1000
Fax : +91 22 4286 3000
Website : www.jsw.in

undertook the DGPS survey involving officials from revenue, Mining and Forest & Environment Departments under the technical assistance of ORSAC (Orissa Space Application Centre) and confirmed the extent of forest land as 257.451 Ha (**Annexure-4**) (as per DGPS measurement) within the mining lease. Accordingly, on demand from Govt. of Odisha for NPV over the entire area, payment of 19.31 Cr was made by JSW. This payment of NPV is in addition to the NPV paid for the entire area earlier during 2010.

- Based on the above, after payment of advance lumpsum NPV of 19.31 Crore (**Annexure-5**) covering the entire area of forest land falling within the mining lease and the applicability covered the entire lease for assignment as per the condition under sec-2 of FC Act and lease deed between JSW and Govt of Odisha was executed.
- For obtaining diversion under section-2(ii) for use of remaining forest land for non-forestry purpose, based on the DGPS survey and geo referencing, Forest Department - Govt. of Odisha further has clarified that out of total forest area of 257.451 Ha (as per DGPS) within the mining lease, diverted area under section 2(ii) is 238.201 ha (Earlier 244.327) and for 19.256Ha (earlier 14.864 Ha) fresh application for diversion under section 2(ii) is to be processed.
- However, NPV for the entire forest area has already been paid initially in the year 2010 and later in the year 2020 i.e., twice before execution of mining lease. **MoEF&CC vide its guideline even numbered, dated- 31.5.2023 (Annexure-6) at para no-1 has also clarified that as per the provisions of said guidelines given under para 7.3(iv) of the Hand book of Forest (conservation) Act 1980, General Approval subject to certain condition prescribed therein, has been granted to the state under section 2(iii) of the Forest (conservation) Act,1980 in respect of existing mining leases.** This inter-alia irrespective of the extent, covers the forest area already approved under section-2 of FC act and the balance area in entirety. The mining activity shall be restricted in the forest land which diverted under section 2 (II) and working in the balance area of 19.256 Ha shall be taken up only after obtaining the necessary approval from MoEF&CC.
- JSW has applied for Diversion of 19.256 Ha of forest land for non-forest purpose and has been recommended by State Govt. to MoEF&CC.

We therefore request your kind consideration for grant of Environmental Clearance.

Thanking you & with regards,
For JSW Steel Ltd.


02/09/2025

(Authorized Signatory)

F. No. 11-599/2014-FC
Government of India
Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)

Indira Paryavaran Bhawan
Aliganj, Jorbagh Road
New Delhi - 110 003
Dated: 1st April, 2015

To

The Principal Secretary (Forests)
All State / Union Territory Governments

Sub: Guidelines for diversion of forest land for non-forest purposes under the Forest (Conservation) Act 1980- Submission of proposals to obtain approval for diversion of entire forest land located within a mining lease.

Sir,

I am directed to refer to this Ministry's letter No. 11-362/2012-FC dated 1st February, 2013 on the above-mentioned subject, wherein this Ministry informed *inter-alia* that in case of mines where approval under the Forest (Conservation) Act, 1980 (FC Act) for diversion of only a part of forest land located within the mining leases has been obtained, after two years from the issue of the said letter mining will be allowed only if the user agency either obtains approval under the FC Act for the entire forest land located within the mining lease or surrenders such forest land for which approval under the FC Act has not been obtained and execute a revised mining lease for the reduced lease area.

2. This Ministry received representations wherein it has *inter-alia* been stated that it is practically not possible to obtain approval under the FC Act for diversion of the entire forest land in two years as the whole process takes more than two years. This Ministry was requested to issue the revised guidelines to prevent disruption in the ongoing mining operations.

3. This Ministry has examined the matter in consultation with the Department of Legal Affairs, Ministry of Law and Justice. After careful examination of the matter and the advice of the Department of Legal Affairs, Ministry of Law and Justice, this Ministry in supersession of the said letter No. 11-362/2012-FC dated 1st February, 2013, hereby decides as below:

- (i) Henceforth, in case of mining leases, including those of Government Authorities, having forest land in part or in full, approval of Central Government under Section-2 (iii) of the FC Act, for the entire forest land located within a mining lease shall be obtained before execution (including by way of renewal) of a mining lease in accordance with the provisions of the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act) and the Rules framed thereunder.



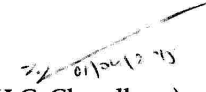
- (ii) User agencies while submitting application to obtain prior approval under Section 2 (iii) of the FC Act, if they so desire, may also seek prior approval of Central Government under Section 2 (ii) of the FC Act for use of the whole or a part of the forest land located within the mining lease for mining and allied non-forest activities. Area of forest land for which approval under Section 2 (ii) and 2 (iii) is sought shall separately be indicated in the proposals submitted by the user agencies. Where at the time of execution of the mining lease prior approval of Central Government under Section 2 (ii) to use the entire forest land falling in the mining lease for mining and allied non-forest activities is not obtained, the user agencies may submit proposal under Section 2 (ii) of the FC Act for the whole or a part of the remaining forest land falling within the mining lease, as and when such forest land is proposed to be utilised for mining and allied non-forest activities.
- (iii) Central Government after examination of a proposal and after such other enquiry as it may consider necessary, may accord approvals under Section 2 (iii) and 2 (ii) of the FC Act for assigning on lease and to utilize for mining and allied non-forest activities respectively, such areas of forest land, as it may consider expedient, or reject the same.
- (iv) Prior approval of Central Government under Section 2 (iii) of the FC Act shall be subject to payment of Net Present Value (NPV) of the forest land allowed to be assigned on mining lease. Similarly, prior approval of Central Government under Section 2 (ii) shall be subject to other usual conditions apart from realization of NPV of the forest land allowed to be utilised for mining and other allied non-forest activities.
- (v) In case of existing mining leases having forest land in part or in full, where approval under Section 2 of the FC Act for a part of the forest land has only been obtained, Central Government hereby accords general approval under Section 2 (iii) of the FC Act for the remaining area of the forest land falling within such mining leases, subject to following conditions:
- (a) State Government shall, within a period of one year from the date of issue of this letter, realize from the user agency, NPV of the entire forest land falling in the mining lease, in case NPV of such forest land has not already been realised;
 - (b) In case State Government fails to realize from the user agency, NPV of the entire forest land falling in a mining lease within a period of one year from the date of issue of this letter, this general approval in respect of such mining lease, shall be kept in abeyance, and shall be deemed to have been kept in abeyance, and all mining activities in such mining lease shall be stopped, till such time, the NPV of such forest land is realised by the State Government;
 - (c) The general approval shall be valid for a period co-terminus with the period of mining lease in accordance with the provisions of the Mines and Minerals (Development and Regulation) Act, 1957, as amended, and the Rules framed thereunder;

2/01/2017

- (d) This general approval does not, in any manner, exempt a user agency from obtaining prior approval under Section 2(ii) of the FC Act in regard to such area of forest land which is to be used for non-forest purpose;
- (e) Grant of this general approval under Section 2 (iii) does not, in any manner, create any right or equity in favour of the user agency for grant of approval under Section 2 (ii) of the FC Act and decision on proposals under Section 2 (ii) will be taken purely on the merit of each case;
- (f) This general approval will not be applicable to the forest land for which Central Government before the issue of this letter has already declined approval under Section 2 of the FC Act; and
- (g) Grant of this general approval does not in any manner, exonerate the concerned authorities in the State Government or in any other Authority, from the proceedings under Section 3A and 3B of the FC Act, liable to be initiated for violation, if any, of the FC Act committed by them by assigning such forest land on mining lease without obtaining prior approval of Central Government under Section-2 of the FC Act.
- (vi) The user agency shall be responsible for protection of the forest land located in a mining lease for which prior approval of Central Government under Section 2 (iii) of FC Act, including by way of the afore-mentioned general approval, has only been obtained. However, administrative and management control of such forest land will remain with State Forest Department or other forest land owning agencies and the forests will be managed in accordance with the approved management plan till such time it is not diverted for non-forest purpose, *i.e.*, mining and remains unbroken.

This issues with approval of the Hon'ble Minister of State (Independent Charge) for Environment, Forest and Climate Change.

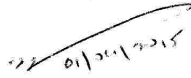
Yours faithfully,


(H.C. Chaudhary)
Director

Copy to:-

1. Prime Minister's Office (*Kind attn.:* Shri Santosh D. Vaidya, Director).
2. Secretary, Ministry of Mines, Government of India.
3. Secretary, Ministry of Coal, Government of India.
4. Secretary, Ministry of Steel, Government of India.
5. Principal Chief Conservator of Forests, all States/UTs.
6. Nodal Officer, the Forest (Conservation) Act, 1980, all States/UTs.
7. All Regional Offices, Ministry of Environment, Forest and Climate Change (MoEFCC).
8. Joint Secretary, In-charge, Impact Assessment Division, MoEF.

9. PS to the Hon'ble Minister of State (Independent Charge) for Environment, Forest and Climate Change.
10. Chairman, State Environment Impact Assessment Authority, all States/UTs.
11. Member-Secretary, State Environment Impact Assessment Authority, all States/UTs.
12. All Directors/ Assistant Inspector General of Forests in Forest Conservation Division, MoEFCC.
13. All Advisors/ Directors/ Dy. Directors in the Impact Assessment Division, MoEFCC.
14. Director, Regional Office (Headquarters), MoEFCC. .
15. Sr. Director (Technical), NIC, MoEFCC with a request to place a copy of this letter on website of this Ministry.
16. Sr. PPS to the Secretary, Ministry of Environment, Forest and Climate Change.
17. Sr. PPS to Director General of Forests and Special Secretary, Ministry of Environment, Forest and Climate Change.
18. Sr. PPS to Addl. Director General of Forests (Forest Conservation), Ministry of Environment, Forest and Climate Change.
19. PS to Inspector General of Forests (Forest Conservation), Ministry of Environment, Forest and Climate Change.
20. Guard File.


(H.C. Chaudhary)
Director

By E-mail**OFFICE OF THE DIVISIONAL FOREST OFFICER: BONAI DIVISION.**Phone / Fax – 06626-244434: E-mail At-
dfobonai@rediffmail.comNo. 3436 / 6F-(Mg.) Dt: 13.5.2015

To

The Collector,
Sundargarh.

Sub:-

Extension of validity period of 13 nos. of mining leases in
Sundargarh District.

Ref:-

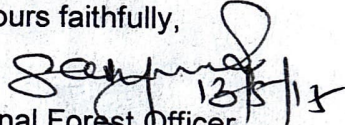
1. Your Letter No.194/Mining dt.30.4.2015 addressed to the DDM,
Koira / Rourkela, and copy endorsed to this office in the next memo.
2. This Office Letter No.3269 dt.1.5.2015
3. Revised information sent by E-mail on 5.5.2015.

Sir,

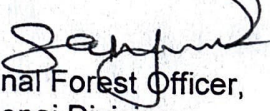
In continuation to this office Letter No.3269 dt.1.5.2015, this is to inform you that the revised information regarding availability of forest clearance in respect of 10 nos. of Mining Leases which was sent to you by E-mail on 5.5.2015 are hereby authenticated, and sent herewith for favour of kind information and necessary action.

Encl :- As above

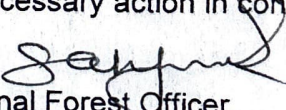
Yours faithfully,


 Divisional Forest Officer,
 Bonai Division.
Memo No. 3437 / 6F-Dt: 13.5.2015

Copy forwarded to the Addl. Principal Chief Conservator of Forests, Forest Diversion & Nodal Officer, F.C. Act' O/O the P.C.C.F., Odisha, Bhubaneswar for favour of kind information and necessary action in continuation to this office Memo No.3270 dt.1.5.2015.


 Divisional Forest Officer,
 Bonai Division.
Memo No. 3438 / 6F-Dt: 13.5.2015

Copy forwarded to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action in continuation to this office Memo No.3271 dt.1.5.2015.


 Divisional Forest Officer,
 Bonai Division.
Memo No. 3439 / 6F-Dt: 13.5.2015


Copy forwarded to the Deputy Director of Mines, Koira Circle for information and necessary action with reference to Letter No.194 dt.30.4.2015 of the Collector, Sundargarh and in continuation to this office Memo No.3272 dt.1.5.2015.


 Divisional Forest Officer,
 Bonai Division.

REVISED INFORMATION IN RESPECT OF 10 NOS. OF MINES COMING UNDER BONAI DIVISION IN CONTINUATION TO THIS OFFICE LETTER NO.3269 DT.1.5.2015 WITH REFERENCE TO MEMO NO.195 DT.30.4.2015 OF THE COLLECTOR, SUNDARGARH (5.5.2015)

Sl. No. as assigned in Letter No.3199 dt.20.4.15 of Director of Mines, Odisha	Name of the lease / lessee	Original Lease period	Total forest area (in Ha.)	Non-forest land	Total lease area	F.C. clearance (Stage-II) granted in Ha.	Balance forest area requiring F.C. clearance (in ha.)	Whether balance forest area, if any, is covered by General Approval issued vide Letter No.11-599/2014-FC dt.1.4.15 of the MoEF	Whether the forest clearance is valid in terms of Guideline issued vide Letter No.11-51/2015-FC dt.1.4.2015 of the MoEF	Realisation of NPV		Remarks
										Demanded	Realised	
1	2	3	4	5	6	7	8	9	10	11	12	13
16	Tehrai Iron and Mn. Mines of M/s B.I.Co. Ltd.	1.1.1942 to 31.12.1971	87.714	28.858	116.572	87.714, Fully diverted	-	General Approval not required	FC clearance deemed to have been extended	79212300	79212300	20.798 ha. forest land proposed for surrender during 3rd RML.
17	Nadidih Iron & Mn. Mines of M/s B.I.Co. (P) Ltd., Barbil	11.12.1947 to 10.12.1967	67.637	6.218	73.855	67.637, Fully diverted	-	General Approval not required	FC clearance deemed to have been extended	49375010	49375010	-
18	Orahuri Mn. Mines of M/s OMM Ltd.	1939 to 31.12.59	32.759	18.717	51.476	Forest Clearance not yet granted	32.759	Covered by the General approval.	No F.C. clearance obtained	23914070	23914070	The diversion proposal has been forwarded to the MoEF vide Letter No.274/F&E dt.5.1.2015 of the F&E Deptt.
19	Patmunda Mn. Mines of M/s OMM (P) Ltd.	1939 to 31.12.59	612.351	194.97	807.316	250.567	361.784	The balance forest area is covered by the General approval.	Part FC clearance over 250.567 ha. is deemed to have been extended	314965070	314965070	Diversion proposal not yet submitted for the balance area of 361.784 ha.
20	Bhanjikusum Mn. Mines of M/s OMM Ltd.	1939 to 31.12.59	-	8.134	8.134	-	-	No forest land.				F.C. clearance not required
21	Kalmang Mn. Mines of M/s Rungta Mines Ltd.	1.1.1939 to 31.12.1968	85.567	27.808	113.375	85.567, Fully diverted	-	General Approval not required	FC clearance deemed to have been extended	105355480	105355480	-

Sl. No. as assigned Letter No. 199 dt. 20.4.2015 of Director of Mines, Odisha	Name of the lease / lessee	Original Lease period	Total forest area (in Ha.)	Non-forest land	Total lease area	F.C. clearance (Stage-II) granted in Ha.	Balance forest area requiring F.C. clearance (in ha.)	Whether balance forest area, if any, is covered by General Approval issued vide Letter No. 11-599/2014-FC dt. 1.4.15 of the MoEF	Whether the forest clearance is valid in terms of Guideline issued vide Letter No. 11-51/2015-FC dt. 1.4.2015 of the MoEF	Realisation of NPV		Remarks
										Demanded	Realised	
1	2	3	4	5	6	7	8	9	10	11	12	13
22	Kanther-Koira Mn. Mines of M/s Rungta Mines Ltd.	1.1.1939 to 31.12.1959	35.839	37.814	73.653	35.839, Fully diverted	-	General Approval not required	FC clearance deemed to have been extended	23769970	23769970	-
23	Nadidhi Iron & Mn. Mines of M/s Feegrade & Co. (P) Ltd., Barbil	31.10.1944 to 30.10.1964	89.870	31.535	121.405	84.427	-	General Approval not required	FC clearance deemed to have been extended	66391280	66391280	The balance forest area - 5.443 ha. (surrender area)
24	Mahusukha Mn. Mine of M/s AMTC Ltd.	3.2.1945 to 2.2.1965	340.332	59.506	399.838	227.00	113.332	The balance forest area is covered by the General approval.	Part FC clearance over 227.00 ha. deemed to have been extended	248442360	248442360	Diversion proposal not yet submitted for the balance area
25	Narayanposhi Iron and Mn. Mines of M/s AMTC (P) Ltd.	3.2.1945 to 2.2.1965	259.191	90.072	349.263	244.327	-	Balance forest area of 14.864 ha. is covered by the General approval.	FC clearance deemed to have been extended	183940850	183940850	-


 Divisional Forest Officer,
 Bonal Division.

Government of India
Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)

Indira Paryavaran Bhawan,
Aliganj, Jorbagh Road,
New Delhi-110003

Dated: **31st March, 2020**

To
The Principal Secretary (Forests),
All State/UT Governments

**Sub: Guidelines under Forest (Conservation) Act, 1980, in pursuance of the
“The Mineral Laws (Amendment) Act, 2020” – regarding.**

Sir,

The Central Government has promulgated ‘The Mineral Laws (Amendment) Act, 2020’, on 13th March, 2020, which *inter-alia* provides that successful bidder (i.e. the new lessees) of the mining leases expiring under the provisions of sub-section (5) and (6) of Section 8A of Mines and Minerals (Development & Regulation) Amendment Act, 2015, shall be deemed to have acquired all valid rights, approvals, clearances, licenses and like vested with the previous lessee for a period of two years. The said new Act also provides that it will be lawful for the new lessee to continue mining operations on the land, in which mining operations were carried out by the previous lessee, for a period of two years from the date of commencement of new lease.

Therefore, in the light of promulgation of the above said Act, the matter related to the validity of the approvals granted under Forest (Conservation) Act, 1980 (FCA-1980) was examined in the Ministry. After careful consideration of the issue with a view to align the provisions of relevant guidelines under the Forest (Conservation) Act 1980 in pursuance of the concerned provisions under ‘The Mineral Laws (Amendment) Act, 2020’, para 7.3(vi), as given under, is inserted in Chapter-7 of the Handbook of Forest (Conservation) Act, 1980:

- a. *A new lessee of the mining leases expiring under the provisions of sub-section (5) and (6) of Section 8A of Mines and Minerals (Development & Regulation) Amendment Act, 2015, shall be deemed to have acquired all valid rights, approvals, clearances, licenses and like vested with the previous lessee for a period of two years. The new lessee shall continue mining operations on the land, in which mining operations were carried out by the previous lessee, for a maximum period of two years from the date of commencement of new lease on the same terms and conditions which was stipulated in the approval under FCA-1980, obtained by the previous lessee.*
- b. *The new lessee, after obtaining Letter of Intent (LoI), shall obtain approval under the FCA-1980 following due procedure, for non-forestry use of forest land falling in such mining lease for continuing mining operation beyond two years during which it has deemed to have acquired rights to undertake mining operation. In case, approval under the FCA-1980 is not obtained within the stipulated time of two years of commencement of lease by the new lessee, the mining operation shall be stopped till such approval has been obtained.*

c. *While obtaining approval under the provisions of FCA-1980 as per clause (b) above, the new lessee shall pay the Net Present Value (NPV) for the total forest area located within the mining lease, along with any other amount due as per guidelines issued by Government of India from time to time. However, on the date of issuance of Lol, the state government shall realize a lump sum amount at the rate of Rs 7.50 lakh per ha (for the total forest area within the mining lease) from the new Lol holder. This amount shall be deposited into the account of CAMPA, which will be adjusted against actual compensatory levies payable on the forest land, at the time of approval as per clause (b) above.*

This issues with the approval of competent authority.

Yours faithfully,

Sd/-

(Sandeep Sharma)

Assistant Inspector General of Forests

Copy to:

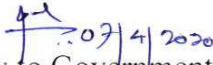
1. Secretary (Mines), Government of India
2. The Principal Chief Conservator of Forests, All State/UT Governments
3. The Nodal Officer (FCA), Office of the PCCF, All State/UIT Governments
4. The Dy Director General of Forests (Central), All Regional Offices of MoEF&CC
5. PPS to Secretary (EF&CC) GoI, PPS to DGF&SS, MoEF&CC, GoI
6. Monitoring Cell, FC Division, MoEF and CC, New Delhi
7. Guard File

Government of Odisha
Forest & Environment Department

Memo No. 6787 /F&E, Dated: 07.04.2020
No.10F (Cons) 75/2020

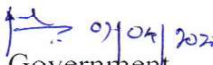
Copy of Government of India, MoEF&CC, New Delhi, Letter File No.11-97/2018-FC dtd.31.03.2020 regarding guidelines under Forest (Conservation) Act, 1980, in pursuance of the "The Mineral Laws (Amendment) Act, 2020" forwarded to the Principal Chief Conservator of Forests, Odisha and Principal Chief Conservator of Forests (WL) & CWLW, Odisha for kind information and necessary action.

As per the Para-C of the guidelines, the State Government shall have to realize a lump sum amount at the rate of Rs.7.5 lakh per hectare (for the total forest area within the mining lease) from the LoI holder towards NPV. So it is requested to kindly take immediate necessary steps for realization of the required NPV as above.


Special Secretary to Government

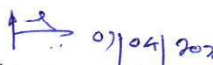
Memo No. 6788 /F&E, Dated: 07.04.2020

Copy along with copy of enclosure forwarded to Steel & Mines Department for information and necessary action.


Special Secretary to Government

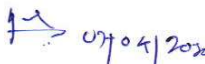
Memo No. 6789 /F&E, Dated: 07.04.2020

Copy forwarded to the Director of Mines for information and necessary action with reference to his Letter No.2730 dated 03.04.2020.


Special Secretary to Government

Memo No. 6790 /F&E, Dated: 07.04.2020

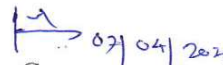
Copy along with the copy of the enclosure forwarded to the all Regional Chief Conservator of Forests for information and necessary action.


Special Secretary to government

Memo No. 6791 /F&E, Dated: 07.04.2020

Copy along with the copy of the enclosure forwarded to the all Divisional Forest Officers for information and necessary action.

The concerned DFOs are requested to immediately place Demands to the LoI holder towards NPV, as per the list of LoI holders enclosed herewith.


Special Secretary to Government

No.MXIII(d)-28/2018/ 2730 /DM.
From,

Dt. 03.04.2020

To
Deepak Mohanty, IFS(Retd.)
OSD-cum-Special Secretary to Government
and Director of Mines, Odisha
Bhubaneswar.

To
The Special Secretary to Government
Forest & Environment Department
Odisha, Bhubaneswar.

Sub: Guidelines under Forest (Conservation) Act, 1980, in pursuance of the "The Mineral Laws (Amendment) Act, 2020" – regarding.

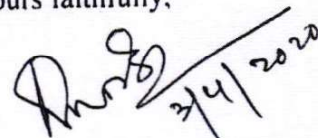
Ref: MoEF & CC letter No.F.No.11-97/2018-FC dt.31st March, 2020.

Sir,

In inviting a reference to the above mentioned guidelines issued by Ministry of Environment, Forest & Climate Change, Govt. of India dt.31st March, 2020, this is to inform that on successful completion of forward auction of the mining leases, validity of which has expired on 31st March, 2020, the letter of intent has been issued in favour of 21 preferred bidders. The list of the said mining leases along with the details of the forest area involved and the names of the preferred bidders is enclosed herewith for kind reference. It is pertinent to mention here that all the above mining lease areas were DGPS surveyed jointly by the representatives of the circle mining offices, officials of Forest & Environment Department and Revenue officials under the technical assistance of ORSAC. Accordingly the details of areas as above have been reflected in the block summaries of respective blocks published under the NIT brought out before the auction.

As per the Para-C of the guidelines referred to above, the State Government shall have to realize a lump sum amount at the rate of Rs.7.5 lakh per hectare (for the total forest area within the mining lease) from the LoI holder towards NPV. It is therefore requested to kindly take necessary steps for realization of the required NPV as above and intimate the Steel & Mines Department, on receipt of which the vesting orders will be issued as per the M.C.(Amendment) Rules, 2020.

Yours faithfully,


3/4/2020

DIRECTOR OF MINES, ODISHA.

Encl: As above.

So (Mv)
↑
3/4/20

DETAILS LIST OF LOI HOLDERS ALONGWITH ITS ADDRESSES

Sl. No.	District	Name of the Lease	Minerals	Total Area in hect	Forest Area in hecets	Non-Forest area in hecets	Name of the Loi Holder with address
1	Keonjhar	Nuagaon Iron ore Block	Iron	776.969	649.508	127.461	M/s JSW Steel Limited, JSW Centre Bandra Kurla Complex, Bandra East, Mumbai, PIN-400051, E-mail: ranjan.nayak@jsw.in
2	Sundargarh	Narayanposhi Iron & Mn ore Block	Iron & Mn	347.008	257.451	89.557	M/s JSW Steel Limited, JSW Centre Bandra Kurla Complex, Bandra East, Mumbai, PIN-400051, E-mail: ranjan.nayak@jsw.in
3	Keonjhar	Thakurani Iron ore Block	Iron	228.744	228.744	0.00	M/s Arcelor Mittal Pvt. Ltd, Office No. 126, 101 TO 104 GCP Business Centre, Memnagar, Ahmedabad-380014, E-mail: amakrishna.chinnamsetty@arcelormittal.com
4	Keonjhar	Balda Iron ore Block	Iron	343.981	310.789	33.192	M/s Serajuddin & Co., 19-A, 1st Floor, Abdul Hamid Street, Kolkatta-700069, E-mail: nihar@serajuddinmines.com
5	Sundargarh	Ganua Iron ore Block	Iron	88.516	82.79	5.726	M/s JSW Steel Limited, JSW Centre Bandra Kurla Complex, Bandra East, Mumbai, PIN-400051, E-mail: ranjan.nayak@jsw.in
6	Keonjhar	Jajang Iron ore Block	Iron	669.078	514.452	154.63	M/s JSW Steel Limited, JSW Centre Bandra Kurla Complex, Bandra East, Mumbai, PIN-400051, E-mail: ranjan.nayak@jsw.in
7	Keonjhar	Roida-II Iron ore Block	Iron	74.702	70.870	3.832	M/s Narbheram Power & Steel (P) Ltd. 11 & 13 Gundichapada Industrial Estate, Gundichapada, Dhenkanal-759013, E-mail: vivek.ojha@athagroup.in
8	Sundargarh	Mahulsukha Iron & Mn ore Block	Iron & Mn	390.317	368.043	22.274	M/s Patmaik Minerals (P) Ltd. Baneikela, Keonjhar-758038, E-mail: pmp1eaction@gmail.com
9	Sundargarh	Nadidih (BICO) Iron ore Block	Iron	74.50	68.28	6.22	M/s Sociedade De Fomento Industrial (P) Ltd., Vila Flores Da Silva Erasmo Carvalho Street, Margao-40360, E-mail: banerjee@fomento.com



By E-mail
By Regd. Post

ବନଖଣ୍ଡ ଅଧୀକାରୀଙ୍କ କାର୍ଯ୍ୟାଳୟ: ବଣାଇଁ ବନଖଣ୍ଡ I

OFFICE OF THE DIVISIONAL FOREST OFFICER: BONAI DIVISION.

Phone / Fax – 06626-244434: E-mail

At- dfobonai.od@gov.in

Memo No. 5450/6F-(Mg.)Dt: 16.06.2020

To

The Principal Chief Conservator of Forests,
Forest Diversion & Nodal Officer, F.C. Act'
O/O the P.C.C.F., Odisha, Bhubaneswar.

Sub:-

Regarding deposit of ₹ 19,30,88,250/- into "ORRISA CAMPA, A/c No. 150825844600243 on Challan dt.5.6.2020 and payment dt.10.6.2020 in favour of CORP0000371, Corporation Bank Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road New Delhi towards cost of NPV by M/s JSW Steel Ltd.

Ref:-

Letter dt.10.6.2020 of M/s JSW Steel Ltd.

With reference to above, the User Agency has intimated this office vide Letter under reference that they have deposited ₹19,30,88,250/- in favour of the ORRISA CAMPA Account No.150825844600243, Corporation Bank Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road New Delhi (IFSC No.CORP0000371) through e-portal of MoEF & CC (<http://parivesh.nic.in>) on Challan dt.5.6.2020 and payment dt.10.6.2020 towards cost of NPV and submitted payment details to this office, which are sent herewith for favour of your kind information and necessary action. The detailed statement in the prescribed proforma is **enclosed herewith**.

Encl :- As above

Memo No. 5451 /6F-Dt: 16.06.2020


Divisional Forest Officer,
Bonai Division.

Copy along with Xerox copy of the enclosures forwarded to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action.

Memo No. 5452 /6F-Dt: 16.06.2020


Divisional Forest Officer,
Bonai Division.

Copy along with Xerox copy of the enclosures forwarded to the Collector, Sundargarh for favour of kind information and necessary action.

Copy to "CAMPA" file


Divisional Forest Officer,
Bonai Division.

DETAILS OF FUNDS RECEIVED FROM USER AGENCIES UNDER FOREST (CONSERVATION) ACT TRANSFERRED TO CAMPA FUND THROUGH RTGS / ONLINE								
Sl. No	Name of the Project with GOI approval order No. & date	Bank Draft No. & date (Photo copy of Bank Draft also to be attached)/ Payment made through RTGS by the User Agency	NPV	CA	Regional WL Mngt. Plan	Other	Total	Remark
1	2	3	4	5	6	7	8	9
1.	Narayanposhi Iron & Manganese Block over 257.451 ha. of forest land of M/s JSW Steel Ltd, Mumbai	Through e-portal in A/c No. 150825844600243 on Challan dated 5.6.2020 and payment dated 10.6.2020 in favour of CORP0000371, Corporation Bank Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road New Delhi from UTR No. SBINR52020061000090731	19,30,88,250	-	-	-	19,30,88,250	-

Divisional Forest Officer,
Bonai Division.

(13)

Government of India
Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)

Indira Paryavaran Bhawan,
Aliganj, Jor Bag Road,
New Delhi - 110003.

Dated: 31st May, 2023

To

The Addl. Chief Secretaries/Principal Secretaries (Forests),
All States/ Union Territory Administrations.

Sub: Clarification on the guidelines given under para 7.3(iv) of the Handbook of Forest (Conservation) Act, 1980 – reg.

Sir,

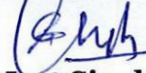
I am directed to refer to above mentioned subject and to inform that as per the provisions of said guidelines given under para 7.3(iv) of the Handbook of Forest (Conservation) Act, 1980, General Approval, subject to certain conditions prescribed therein, has been granted to the States under section 2 (iii) of the Forest (Conservation) Act, 1980 in respect of existing mining leases having forest land in part of full and where approval under the Forest (Conservation) Act, 1980 has been obtained only for part of the forest land involved in the mining lease.

Said GA was granted to ensure uninterrupted mining operations in the already approved lease area of the user agency and to enable the State/UT Governments to assign the forest land on lease under section 2 (iii) of the FC Act, 1980 for which approval under section 2 (ii) of the FC Act, 1980 has not been obtained by the user agency. Mining in area approved under section 2(ii) can only be undertaken after obtaining the approval of the Central Government under section 2 (ii) of the Forest (Conservation) Act, 1980.

In view of the above, it is to clarify that in respect of existing mining leases having forest land in part or full and where the State Governments have considered the grant of GA as per the provisions of the para 7.3(iv) of the Handbook of Forest (Conservation) Act, 1980, the existing mining operations will be restricted to the forest land already approved under section 2(ii) of the FC Act, 1980. In existing leases where approval under the FC Act, 1980 is available only for part of forest land, the non-availability of approval under the section 2 (ii) of the Act in respect of remaining forest land will not be a deterrent to undertake mining in the already approved area provided the user agency has complied all conditions, as stipulated under para 7.3(iv) of the Handbook of Forest (Conservation) Act, 1980.

This issue with the approval of Competent Authority.

Yours faithfully



(Charan Jeet Singh)
Scientist 'D'

Copy to:

1. The PCCF, All States/ Union Territories Administration.
2. The Regional Officer, All Integrated Regional Office of MoEF&CC
3. The Nodal Officer, O/o the PCCF, All States/ Union territories Administration.
4. Monitoring Cell of FC Division, MoEF&CC, New Delhi
5. Guard file



ADS Reply

Query :	ADS
Query Description :	The project proponent needs to submit a detailed chronology of the Forest Clearance proposal for the forest land involved in the project indicating timelines, reasons, and pendency at various stages.
Query Document :	
EDS Raised On :	22/10/2025
Reply :	We are hereby submitting the ADS reply for your kind appraisal.
Reply Document Name :	ADS Reply_22Oct25
Reply Document :	reply letter_ads_22oct25.pdf Preview
Replied On :	01/11/2025

Regd. Office: JSW Centre
Bandra Kurla Complex,
Bandra (East), Mumbai – 400 051
CIN : L27102MH1994PLC152925
Phone : +91 22 4286 1000
Fax : +91 22 4286 3000
Website : www.jsw.in

No. JSW/S/CO/25/524

Date: 01/11/2025

To

**The Member Secretary – EAC (Non-Coal Mining),
Ministry of Environment, Forest & Climate Change
Govt. of India, Indira Paryavaran Bhavan,
Jorbag Road, Aliganj, New Delhi – 110003**

Subject: Environmental Clearance for Expansion in Narayanposhi Iron and Manganese Ore Mine [ML Area: 347.008 ha (As per DGPS)/ 349.254 ha (As per ROR)] with Iron Ore (ROM: 10 Million TPA & OB: 4.216 Million TPA), Total Excavation: 14.216 Million TPA and with Manganese Ore (ROM: 0.036 MTPA & OB: 0.223 MTPA), Total Excavation: 0.259 Million TPA along with Mobile Crushing & Screening Plant: (400 TPH x 10 Nos & 250 TPH x 07 Nos), Central Processing Unit (CPU): 2000 TPH, Grinding & Beneficiation Plant: 6.0 Million TPA for Mineral Processing & Slurry Pumping Station to transport Iron Ore Concentrate located at Villages: Harischandrapur, Koira, Kashira, Kusumdihi and Kathamala RF, Tehsil: Koira, District: Sundargarh, State: Odisha by M/s. JSW Steel Ltd. **_ submission of ADS regarding.**

Ref: i. Proposal No : IA/OR/MIN/482860/2024
ii. MoEFCC File No : J-11015/62/2020-IA.II(M)
iii. 46th EAC Meeting (Non-Coal Mining Sector) held on 25.06.2025

Respected Sir,

With reference to the above-mentioned subject, we would like to apprise your good self that the said proposal is considered under Agenda Item No. 1.3 in the 46th EAC (NCM) meeting held on 25.06.2025 and recommended for EC. As per the deliberations held, additional details (ADS) were sought, in compliance of the same we are submitting ADS reply for your kind consideration.

ADS: The project proponent needs to submit a detailed chronology of the Forest Clearance proposal for the forest land involved in the project indicating timelines, reasons, and pendency at various stages.

Reply:

Pursuant to the provisions of the Mines and Minerals (Development and Regulation) Act, 1957 and the Mineral (Auction) Rules, 2015, the Government of Odisha conducted an e-auction on 01.02.2020, wherein JSW Steel Ltd. was declared the preferred bidder for the Narayanposhi Iron and Manganese Ore Block. As per Section 8A & 8B of the MMDR Act, 2015, all statutory clearances, including Forest Clearance (FC) available with the previous lessee, were vested with JSW on 30.05.2020. The same FC was formally transferred to JSW on 27.04.2022.

Based on DGPS survey and geo-referencing, the Forest Department, Government of Odisha, clarified that out of the total forest area of 257.451 ha within the lease, 238.201 ha (earlier 244.327 ha) stands diverted under Section 2(ii) of the Forest (Conservation) Act. For the remaining 19.256 ha (earlier 14.864 ha), a fresh diversion proposal under Section 2(ii) has been submitted through the PARIVESH-2 portal on 27.09.2023.

Regd. Office: JSW Centre
 Bandra Kurla Complex,
 Bandra (East), Mumbai – 400 051
 CIN : L27102MH1994PLC152925
 Phone : +91 22 4286 1000
 Fax : +91 22 4286 3000
 Website : www.jsw.in

Chronology of Forest Clearance Proposal:

S. No.	Chronology	Timeline	Reasons and pendency at various stages
1.	Allotment of CA land from Collector, Sundergarh, CA land scheme over 20.00 Ha of Non-Forest Land	14.03.2023	-Sundergarh district is a highly forested and tribal-dominated region, making the identification of CA land challenging due to the provisions of the PESA Act. -The Forest Dept of Odisha generally prefers suitable Compensatory Afforestation (CA) land within the same district
2.	Application of Diversion proposal over 19.256 ha of forest land to forest dept.	27.09.2023	-Due to DGPS survey, field work (i.e., georeferencing of village sheet, identification of known location points from ORSAC, triangularization for base point, issue of base point from ORSAC, DGPS survey refereeing base point), process of perusal of maps, authentication from various department such as Revenue, Mining & Forest Dept. -DGPS of CA land, preparation of maps & land schedule.
3.	1 st EDS raised by PSC-1 asking certain changes in maps	11.10.2023	EDS raised by PSC-1: 1. Sol Topo sheet depicting CA land, ORSAC vetted DGPS map, non-encroachment & non-encumbrance Certificate, Site Suitability Certificate etc. have not been uploaded. 2. The ORSAC vetted DGPS map of forest land to be diverted has been uploaded without signature of user Agency, DFO and Tahasildar concerned. 3. Sol Topo Sheet map of forest land to be diverted has not been uploaded. 4. Authorization letter to file the application on behalf of the project proponent has not been uploaded. 5. Status of land as on 25.10.1980 is to be uploaded. 6. The authenticated land scheduled of forest land and no-forest land involved in the project has not been uploaded. 7. The map of Safety Zone has not been uploaded. 8. The land use plan has been uploaded without any signature and in PDF file. 9. The undertaking for payment of CA, ACA, NPV, Addl. NPV, FRA certificate etc. have not been uploaded. 10. In the application form, the location details and patch details, the area of non-forest land involved has not been mentioned.
4.	Authentication of CA land	27.12.2023	Preparation of Compensatory afforestation scheme by DFO, Sundergarh. Authentication from department such as Revenue and Forest Dept.
5.	Reply of 1 st EDS by user agency	22.04.2024	Authentication of all maps from Revenue, Mining & Forest Dept. Post authentication EDS reply was submitted.
6.	The 2 nd EDS by PSC-1 was raised regarding the submission of	29.04.2024	EDS raised by PSC-1:

Regd. Office: JSW Centre
 Bandra Kurla Complex,
 Bandra (East), Mumbai – 400 051
 CIN : L27102MH1994PLC152925
 Phone : +91 22 4286 1000
 Fax : +91 22 4286 3000
 Website : www.jsw.in

	revised and authenticated maps, along with tree enumeration details for both forest and non-forest areas.		<ul style="list-style-type: none"> i. Tree enumeration both in forest and non-forest land have not been done. ii. The proposed land use area has not been reflected (shown) in the modification of mining plan. iii. The DGPS map of the proposed forest land to be diverted has not been signed by concerned Tahasildar, DFO as well as project proponent and has not uploaded at Sl. No.6 of the Application Form. iv. The User Agency has not mentioned clearly the area under diversion and safety zone Separately. v. The Collector, Sundergarh has allotted 20.00 ha of non-forest land in village Lephripara for Compensatory Afforestation in lieu of diversion of 19.256 ha but in KML of CA land has shown 19.081 ha (47.15 Ha.) vi. The site suitability certificate of CA land submitted by the DFO, Bonai Forest Division needs to be changed as the DFO, shown the proposal as change in land use pattern instead of diversion proposal. vii. The SOI toposheet map depicting the proposed forest land to be diverted has not been authenticated by the DFO. viii. The land schedule of forest and non-forest land has not been authenticated by the DFO, Bonai Forest Division.
7.	Reply of 2 nd EDS by user agency	22.11.2024	Delay in reply due to Tree enumeration in non-forest area, certification of tree enumeration from forest Dept and re-authentication of maps from various Govt Department such as Revenue, Mining & Forest Dept.
8.	PSC-1 accepted the proposal with some observation & forwarded to DFO.	29.11.2024	---
9.	Submission of observation to DFO, Bonai	20.12.2024	Observation replied by user agency.
10.	Site inspection of DFO, Bonai	23.12.2024	---
11.	DFO, Bonai processed the diversion proposal & forwarded it to RCCF, Rourkela	20.03.2025	Time taken due to additional field verification using drone survey, scrutiny & compilation of data.
12.	RCCF forwarded the proposal to PCCF	05.04.2025	---

Regd. Office: JSW Centre
Bandra Kurla Complex,
Bandra (East), Mumbai – 400 051
CIN : L27102MH1994PLC152925
Phone : +91 22 4286 1000
Fax : +91 22 4286 3000
Website : www.jsw.in

13.	In PSC-2, the proposal was recommended to State Govt.	09.04.2025	---
14.	PCCF forward the proposal to State Govt.	20.05.2025	Time taken due to scrutinizing and compilation of documents.
15.	State Govt. forwarded the proposal to MoEF&CC, New Delhi	06.06.2025	---
16.	MoEF&CC raised EDS asking suitability of CA land due to overlapping with Protected Forest boundary.	08.07.2025	Clarification from State Forest Dept. is under process.
17.	FC division of Regional Office-MoEF&CC, Bhubaneswar have carried out site inspection	31.07.2025 and 01.08.2025	---

We therefore request your kind consideration for grant of Environmental Clearance.

Thanking you and with regards

For JSW Steel Ltd.

Vijay Kumar
01/11/2025
(Authorized Signatory)



ADS Reply

Query : ADS to PP

Query Description : PP needs to submit the following :

- i. Provision of beneficiation plant in EC dated 18.06.2019. Reasons for delay in the installation of 2 MTPA beneficiation plant in the project needs to be explained with supporting documents. Current status of beneficiation plant in the project along with latest Geotagged photographs, other supporting documents, etc.
- ii. Status of beneficiation plant in the project as mentioned in the site inspection reports/CCR of Regional Office, MoEFCC, Bhubaneswar. A brief note including all communications between Project Proponent (PP) and MoEFCC and its Regional office with respect to compliance of EC conditions should also be submitted. A complete chronology of the Beneficiation plant in the project also needs to be submitted.
- iii. A detailed note about deliberations about beneficiation plant in the project in EAC meetings. All communications between PP and MoEFCC with respect to beneficiation plant should be included in the note.
- iv. A brief writeup of the proposal along with justification for proposed expansion in mining and beneficiation plant components needs to be submitted.

Query Document :

EDS Raised On : 30/11/2025

Reply : ADS Reply of Query dated 30.11.2025

Reply Document Name : ADS Reply of Query dated 30.11.2025

Reply Document : ads reply of query dated 30.11.2025.pdf [Preview](#)

Replied On : 06/01/2026



Regd. Office: JSW Centre
Bandra Kurla Complex,
Bandra (East), Mumbai – 400 051
CIN : L27102MH1994PLC152925
Phone : +91 22 4286 1000
Fax : +91 22 4286 3000
Website : www.jsw.in

Ref. No. JSW/S/CO/2026/ 07

Date: 06.01.2026

To

**The Member Secretary – EAC (Non-Coal Mining),
Ministry of Environment, Forest & Climate Change
Govt. of India, Indira Paryavaran Bhavan,
Jorbag Road, Aliganj, New Delhi – 110003**

Subject: Environmental Clearance for Expansion in Narayanposhi Iron and Manganese Ore Mine [ML Area: 347.008 ha (As per DGPS)/ 349.254 ha (As per ROR)] with Iron Ore (ROM: 10 Million TPA & OB: 4.216 Million TPA), Total Excavation: 14.216 Million TPA and with Manganese Ore (ROM: 0.036 MTPA & OB: 0.223 MTPA), Total Excavation: 0.259 Million TPA along with Mobile Crushing & Screening Plant: (400 TPH x 10 Nos & 250 TPH x 07 Nos), Central Processing Unit (CPU): 2000 TPH, Grinding & Beneficiation Plant: 6.0 Million TPA for Mineral Processing & Slurry Pumping Station to transport Iron Ore Concentrate located at Villages: Harischandrapur, Koira, Kashira, Kusumdihi and Kathamala RF, Tehsil: Koira, District: Sundargarh, State: Odisha by M/s. JSW Steel Ltd. **_ADS Reply Regarding**

Ref:

- i. Proposal No : IA/OR/MIN/482860/2024**
- ii. MOEFCC File No : J-11015/62/2020-IA.II(M)**
- iii. Proposal was recommended by the EAC vide minutes of 38th EAC-NCM meeting held on 27.12.2024 and in Minutes of 46th EAC-NCM held on 25.06.2025**

Respected Sir,

With reference to the aforesaid subject & above cited matter; we would like to apprise your good self that the above-mentioned proposal was considered and recommended for Environment Clearance in 38th & 46th EAC Meeting respectively.

After recommendation of the proposal, Additional Details were sought and reply was submitted accordingly.

Now, an Additional Details were sought on 30.11.2025 and ask the Project Proponent to submit the answer of following points:

- 1. Provision of beneficiation plant in EC dated 18.06.2019. Reasons for delay in the installation of 2 MTPA beneficiation plant in the project needs to be explained with supporting documents. Current status of beneficiation plant in the project along with latest Geotagged photographs, other supporting documents, etc.**
- 2. Status of beneficiation plant in the project as mentioned in the site inspection reports/CCR of Regional Office, MoEFCC, Bhubaneswar. A brief note including all communications between Project Proponent (PP) and MoEFCC and its Regional office with respect to compliance of EC conditions should also be submitted. A complete chronology of the Beneficiation plant in the project also needs to be submitted.**

Regd. Office: JSW Centre
Bandra Kurla Complex,
Bandra (East), Mumbai – 400 051
CIN : L27102MH1994PLC152925
Phone : +91 22 4286 1000
Fax : +91 22 4286 3000
Website : www.jsw.in

3. A detailed note about deliberations about beneficiation plant in the project in EAC meetings. All communications between PP and MoEFCC with respect to beneficiation plant should be included in the note.
4. A brief writeup of the proposal along with justification for proposed expansion in mining and beneficiation plant components needs to be submitted.

Our submission is given below:

The Environment Clearance for Narayanposhi Iron and Manganese Ore Mine was issued by the MoEF&CC for enhancement of Iron Ore from 3.0 Million TPA to 6.0 Million TPA (ROM) and existing 0.036 Million TPA Manganese Ore and establishment of Beneficiation Plant with capacity of 2.0 Million TPA along with Crusher and Screening Plant within the mine lease area vide File No. J-11015/288/2008-IA. II (M), Dated 18.06.2019 in favor of **erstwhile lessee M/s Aryan Mining & Trading Corporation Pvt. Ltd.**

With the amendment in MMDR act the lease period expired on 31.03.2020. Therefore, **M/s. JSW Steel Ltd.** has been declared as successful bidder vide letter no. 5258/SM, dated 24.06.2020 through auction process and Environment Clearance of erstwhile lessee got vested to JSW as per the provisions of Sections 8A and 8B of the amended MMDR Act.

Upon commencement of mining operation, JSW reviewed its iron ore sourcing requirement based on the existing production capacity and future growth plan. Accordingly, proposal for seeking EC for enhancement of Production from 6.0 Million TPA to 10.0 Million TPA iron ore along with 6.0 Million TPA beneficiation plant is processed.

Beneficiation Plant of 2.0 Million TPA was envisaged by the erstwhile lessee and was not adequate for JSW; hence, its construction was not undertaken. This fact has also been confirmed by the RO-MoEFCC, Bhubaneswar through its inspection report vide File No. 101-1040/18/EPA, dated 04.04.2025.

Detailed Point-wise ADS Reply for your kind consideration is given below:

Point No. 1	Provision of beneficiation plant in EC dated 18.06.2019. Reasons for delay in the installation of 2 MTPA beneficiation plant in the project needs to be explained with supporting documents. Current status of beneficiation plant in the project along with latest Geotagged photographs, other supporting documents, etc.
Reply	The EC for Narayanposhi Iron and Manganese Ore Mine was obtained by erstwhile lessee M/s Aryan Mining & Trading Corporation Pvt. Ltd for mining of 6.0 million Tonne along with beneficiation of 2.0 million Tonne in 2019. With the amendment in MMDR act the lease period expired on 31.03.2020. JSW got the mining lease in June 2020 through auction process and EC of erstwhile lessee got vested to JSW as per the provisions of Sections 8A and 8B of the amended MMDR Act. Upon commencement of mining operation, JSW reviewed its iron ore sourcing requirement based on the existing production capacity and future growth plan. Accordingly, proposal for seeking EC for

Regd. Office: JSW Centre
 Bandra Kurla Complex,
 Bandra (East), Mumbai – 400 051
 CIN : L27102MH1994PLC152925
 Phone : +91 22 4286 1000
 Fax : +91 22 4286 3000
 Website : www.jsw.in

	<p>enhancement of Production to 10.0 million Tonne iron ore along with 6.0 million Tonne beneficiation plant is processed.</p> <p>Beneficiation plant of 2.0 million Tonne was envisaged by the erstwhile lessee and was not adequate for JSW, hence its construction was not undertaken. This fact has also been confirmed by the RO-MoEFCC, Bhubaneswar through its inspection report vide File No. 101-1040/18/EPA, dated 04.04.2025. Geotagged photographs are also attached herewith as Annexure I.</p>																		
<p>Point No. 2</p>	<p>Status of beneficiation plant in the project as mentioned in the site inspection reports/CCR of Regional Office, MoEFCC, Bhubaneswar. A brief note including all communications between Project Proponent (PP) and MoEFCC and its Regional office with respect to compliance of EC conditions should also be submitted. A complete chronology of the Beneficiation plant in the project also needs to be submitted.</p>																		
<p>Reply</p>	<p>The Regional Office, MoEFCC, Bhubaneswar submitted an inspection report (CCR) vide File No. 101-1040/18/EPE dated 19.09.2024, which mentioned the construction of the beneficiation plant based on a photograph which is actually depicted the photograph of Centralised Crushing and Screening Plant (CCSP). To clarify this, the RO-MoEFCC, Bhubaneswar conducted a subsequent site visit and confirmed that no construction of the beneficiation plant has commenced. The clarification issued by RO-MoEFCC, Bhubaneswar is reproduced verbatim: "The construction activity of the beneficiation plant is yet to be started."</p> <p>Communications between Project Proponent (PP) and MoEFCC and its Regional office with respect to compliance of EC conditions is as below:</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Description</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Site Visit by RO-MoEFCC, Bhubaneswar for Certified Compliance Report (CCR)</td> <td>30.08.2024</td> </tr> <tr> <td>2.</td> <td>Submission of monitoring report (CCR) to MoEFCC, New Delhi</td> <td>19.09.2024</td> </tr> <tr> <td>3.</td> <td>Submission of point wise action taken report to RO-MoEFCC, Bhubaneswar</td> <td>20.09.2024</td> </tr> <tr> <td>4.</td> <td>Site Visit by RO-MoEFCC, Bhubaneswar regarding status report of Beneficiation Plant</td> <td>26.03.2025</td> </tr> <tr> <td>5.</td> <td>Submission of status report to MoEFCC, New Delhi <i>Note: The report clarified that construction of beneficiation plant is not started</i></td> <td>04.04.2025</td> </tr> </tbody> </table>	S. No.	Description	Date	1.	Site Visit by RO-MoEFCC, Bhubaneswar for Certified Compliance Report (CCR)	30.08.2024	2.	Submission of monitoring report (CCR) to MoEFCC, New Delhi	19.09.2024	3.	Submission of point wise action taken report to RO-MoEFCC, Bhubaneswar	20.09.2024	4.	Site Visit by RO-MoEFCC, Bhubaneswar regarding status report of Beneficiation Plant	26.03.2025	5.	Submission of status report to MoEFCC, New Delhi <i>Note: The report clarified that construction of beneficiation plant is not started</i>	04.04.2025
S. No.	Description	Date																	
1.	Site Visit by RO-MoEFCC, Bhubaneswar for Certified Compliance Report (CCR)	30.08.2024																	
2.	Submission of monitoring report (CCR) to MoEFCC, New Delhi	19.09.2024																	
3.	Submission of point wise action taken report to RO-MoEFCC, Bhubaneswar	20.09.2024																	
4.	Site Visit by RO-MoEFCC, Bhubaneswar regarding status report of Beneficiation Plant	26.03.2025																	
5.	Submission of status report to MoEFCC, New Delhi <i>Note: The report clarified that construction of beneficiation plant is not started</i>	04.04.2025																	

Regd. Office: JSW Centre
 Bandra Kurla Complex,
 Bandra (East), Mumbai – 400 051
 CIN : L27102MH1994PLC152925
 Phone : +91 22 4286 1000
 Fax : +91 22 4286 3000
 Website : www.jsw.in

	<p>Chronology of the Beneficiation plant in the project is as below: -</p> <ul style="list-style-type: none"> ➤ EC for Narayanposhi Iron and Manganese Ore Mine was obtained by erstwhile lessee M/s Aryan Mining & Trading Corporation Pvt. Ltd for mining of 6.0 million Tonne along with beneficiation of 2.0 Mbillion Tonne in 2019. ➤ JSW reviewed its iron ore sourcing requirement based on the existing production capacity and future growth plan. Accordingly, proposal for seeking EC for enhancement capacity of 6.0 million Tonne beneficiation plant is processed. ➤ Accordingly, 2.0 MTPA Beneficiation plant is not constructed. 												
<p>Point No. 3</p>	<p>A detailed note about deliberations about beneficiation plant in the project in EAC meetings. All communications between PP and MoEFCC with respect to beneficiation plant should be included in the note.</p>												
<p>Reply</p>	<p>The proposed mining capacity of 10 MTPA is expected to produce both lump and fine fractions. Based on the geological characteristics of the deposit, approximately 6 MTPA of fines of 58–60% Fe grade will be generated. Since ore of this grade cannot be directly used for ironmaking, beneficiation becomes essential for effective resource conservation and improved ore utilization. Accordingly, a 6 MTPA beneficiation plant has been conceptualized, with an estimated power requirement of 7 MW and a water requirement of 553 m³/hr. The beneficiation process is envisaged to produce tailings in the form of dry filter cake, which will be hauled to backfilled areas, followed by progressive overburden dumping over the tailings.</p> <p>In this backdrop, the Hon’ble EAC deliberated on the need to optimize water usage through technological improvements. Accordingly, after re-engineering and incorporating advanced technological measures, the make-up water requirement has been reduced from 553 m³/hr to 539 m³/hr, resulting in a saving of 14 m³/hr.</p> <p>The Hon’ble EAC also deliberated the need to maintain the green belt around the plant and ensure the implementation of all environment control measures.</p> <p>Communications between PP and MoEFCC with respect to beneficiation plant is given below:</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Description</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>ADS asking Revision of proposed water requirement</td> <td>29.10.2024</td> </tr> <tr> <td>2.</td> <td>ADS was issued asking the status of construction of the 6.0 MTPA beneficiation plant.</td> <td>27.02.2025</td> </tr> <tr> <td>3.</td> <td>The reply of the same ADS is submitted through PARIVESH.</td> <td>02.03.2025</td> </tr> </tbody> </table>	S. No.	Description	Date	1.	ADS asking Revision of proposed water requirement	29.10.2024	2.	ADS was issued asking the status of construction of the 6.0 MTPA beneficiation plant.	27.02.2025	3.	The reply of the same ADS is submitted through PARIVESH.	02.03.2025
S. No.	Description	Date											
1.	ADS asking Revision of proposed water requirement	29.10.2024											
2.	ADS was issued asking the status of construction of the 6.0 MTPA beneficiation plant.	27.02.2025											
3.	The reply of the same ADS is submitted through PARIVESH.	02.03.2025											

Regd. Office: JSW Centre
 Bandra Kurla Complex,
 Bandra (East), Mumbai – 400 051
 CIN : L27102MH1994PLC152925
 Phone : +91 22 4286 1000
 Fax : +91 22 4286 3000
 Website : www.jsw.in

	4.	Additional details (ADS) were sought to obtain and submit a report on current status of installation of beneficiation plant in the project after site inspection by MoEFCC Regional Office, Bhubaneswar.	19.03.2025
	5.	Submission of status report to MoEFCC, New Delhi <i>Note: The report clarified that construction of beneficiation plant is not started</i>	04.04.2025
	6.	EAC (NCM)- MoEFCC has asked a clarification in the MoM of 38 th meeting of EAC(NCM) dated 09.01.2025, para no-2 of page 89/330	23.04.2025
	7.	Submission of the clarification to EAC (NCM) MoEFCC, New Delhi	23.04.2025
Point No. 4	A brief writeup of the proposal along with justification for proposed expansion in mining and beneficiation plant components needs to be submitted.		
Reply	<p>Justification for the proposed expansion:</p> <p>Aligning with the vision of the National Steel Policy to achieve a crude steel capacity of 300 million tonnes and a production of 255 million tonnes by 2030–31, JSW Steel Ltd. has planned to reach a steelmaking capacity of 43.5 MTPA by FY 2027, requiring approximately 79 MTPA of iron ore. The company also envisions achieving a 50 MTPA steel capacity by FY 2030–31, which would require around 90 MTPA of iron ore. Consequently, the demand for high-quality iron ore is expected to increase substantially. In this context, the proposed expansion of mining operations is crucial to ensure a consistent supply of iron ore for JSW Steel’s downstream operations. In 2020, four mining leases were granted to JSW, all of which are undergoing expansion, including the Narayanposhi mine, which is proposed to increase production from 6.0 MTPA to 10 MTPA.</p> <p>To utilize substantial quantities of low-grade iron ore, a 6.0 MTPA Beneficiation Plant has been proposed at Narayanposhi. With rising production and the need to process leaner-grade ore, increasing beneficiation capacity is essential to maximize yield, minimize waste, maintain consistent product quality, and ensure uninterrupted raw material supply to steel plants. The beneficiation plant will upgrade low-grade ore into high-grade concentrate, enhancing overall resource utilization. This enhanced beneficiation and controlled processing capability aligns with JSW Steel’s expansion plans, securing long-term raw material availability for achieving 50 MTPA steel capacity while ensuring uniform concentrate quality crucial for efficient blast furnace and DRI operations.</p>		

Considering all above facts, the Company has proposed 6.0 Million TPA beneficiation plant in place of 2.0 Million TPA beneficiation plant for seeking Environment Clearance and to fulfil its future growth.



Regd. Office: JSW Centre
Bandra Kurla Complex,
Bandra (East), Mumbai – 400 051
CIN : L27102MH1994PLC152925
Phone : +91 22 4286 1000
Fax : +91 22 4286 3000
Website : www.jsw.in

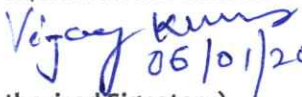
Regarding this, the ToR was issued from the MoEF&CC, New Delhi vide File No. J-11015/62/2020-IA. II(M), dated 31.12.2020 in favor of JSW Steel Ltd., Public hearing was done on 23.05.2022 and Final EIA was submitted on 22.06.2024.

The proposal was also recommended by the EAC vide minutes of 38th EAC-NCM meeting held on 27.12.2024 and in Minutes of 46th EAC-NCM held on 25.06.2025 considering capacity of 6.0 Million TPA Beneficiation Plant.

We therefore request your good self to consider our case for grant of Environmental Clearance for the said capacities at the earliest.

Thanking you & with Regards,

For M/s. JSW Steel Limited


06/01/2025
(Authorized Signatory)

Geotagged photographs of the location where beneficiation plant is proposed



December 27, 2025

To

Shri Tanmay Kumar
Secretary to Union Government,
Ministry of Environment, Forest and Climate Change
Indira Paryavaran Bhawan, Jorabagh Road,
New Delhi-110003.
Email id: secy-moef@nic.in

AND

To

Dr. Dinesh Misra Chairman,
Expert Appraisal Committee (Non-coal)
Ministry of Environment, Forest and Climate Change
New Delhi.
Email id: dmisra56@gmail.com

AND

To

The Member Secretary,
Expert Appraisal Committee (Non-Coal Mining),
Ministry of Environment, Forest and Climate Change,
Government of India, New Delhi
Email id: Ranjan.rajeev@nic.in

Subject: Urgent complaint regarding illegal construction of 6.0 MTPA Beneficiation Plant and 2000 TPH Crushing & Screening Unit by JSW Steel Ltd. at Narayanposhi Iron & Manganese Ore Mine, Odisha — gross violations of the Environment (Protection) Act, 1986 and EIA Notification, 2006

Ref:

1. JSW Proposal No. IA/OR/MIN/482860/2024 and file No. J-11015/62/2020-IA.II(M)
2. Our previous communications dated 07.11.2024, 25.11.2024, 24.12.2024, 26.12.2024, 28.12.2024, 05.04.2025, 15.04.2025, 20.04.2025 and 30.04.2025, 23.05.2025 and 10.11.2025

Dear Sir,

With reference to our earlier letters cited above, we had informed your good office about the illegal construction of 200TPH crushing and screening unit and a 6MTPA beneficiation plant by JSW Steel Ltd at its Narayanposhi mines in without environmental clearance. In testimony of the above statement we had given substantial documentary evidence, including satellite imagery and recent field photographs, clearly demonstrating that construction of a 2000 TPH Crushing and Screening Unit (CPU) and a 6.0 MTPA Beneficiation Plant is nearing completion — all without obtaining the mandatory Environmental Clearance (EC).

We are once again enclosing the latest site photographs, duly supported with latitude, longitude, and date details, which further confirm the ongoing and near-complete status of these illegal constructions. These actions constitute a gross, willful, and continuing violation of the Environment (Protection) Act, 1986 and the EIA Notification, 2006.

Furthermore, it is evident that the project proponent is now seeking an ex post facto Environmental Clearance for these already constructed facilities — an act that is unlawful and contrary to the Hon'ble Supreme Court's landmark judgment dated 16.05.2025 in W.P. (C) No. 1394/2023 and Civil Appeals No. 381–382/2025, which categorically struck down all policies and circulars permitting post-facto ECs, declaring them illegal and unconstitutional.





Factual Summary of Violations by JSW Steel Ltd at Narayanposhi mines

1. **Completion of Construction Without EC:** Satellite imagery and recent field photographs clearly show near-completion of the Crushing and Screening Unit and the 6.0 MTPA Beneficiation Plant without prior Environmental Clearance.
2. **Construction Based Solely on Consent to Establish (CTE):** Construction commenced solely on the basis of a Consent to Establish issued by the Odisha State Pollution Control Board (OSPCB) dated 04.12.2021, which explicitly makes prior EC a mandatory precondition.
3. **Inadequate and Deficient Site Visit:** The MoEF&CC site visit conducted on 26.03.2025 lacked due diligence and failed to correctly assess the extent and status of construction of the Beneficiation Plant, resulting in an inaccurate appraisal.
4. **Illegality of Ex Post Facto EC:** Any attempt to regularize the violations by seeking Environmental Clearance post-construction is squarely barred by the Hon'ble Supreme Court's judgment dated 16.05.2025 and is void ab initio.
5. **Proximity to NH-520 and Safety Risks:** The close proximity of the mine and associated facilities to National Highway-520 poses serious safety hazards, including risks of tailings or dump failure, which have not been assessed.
6. **Impacts on Critical Water Bodies:** The project's overlap with or proximity to the Karo River, Orahari Nallah, Kashira Nallah, and Narayanposhi Nallah has not been adequately studied or disclosed during appraisal.
7. **Unsustainable and Cumulative Water Withdrawal:** The Expert Appraisal Committee (EAC) has assessed water abstraction proposals in isolation, ignoring cumulative hydrological stress on the Baitarani River. JSW Steel Ltd. alone proposes to withdraw approximately 287 lakh cubic metres of water annually for its two slurry pipelines—10 MTPA at Narayanposhi and 30 MTPA at Nuagaon—both sourcing water from the already stressed Baitarani River, the only major river in the region.

8. **Absence of Public Consultation:** Affected villages, including Harishchandrapur, Koira, Kashira, Kusumdihi, and Kathamala Reserved Forest areas, have not been consulted, in violation of the mandatory public consultation requirements under the EIA Notification, 2006.
9. **Misrepresentation and Suppression of Facts:** The project proponent made incomplete and misleading disclosures regarding proximity to ecologically sensitive areas during Expert Appraisal Committee deliberations.
10. **Violation of Terms of Reference and Unauthorized Construction:** Despite the grant of Terms of Reference on 31.12.2020 requiring public hearing and submission of EIA/EMP reports prior to any construction, JSW Steel Ltd. proceeded with large-scale construction, completing over 90% of the Beneficiation Plant by 2023, in blatant disregard of statutory directions.

It is a matter of grave concern that despite repeated complaints and the availability of clear documentary evidence, effective regulatory action has not followed. There is a widespread perception that representations made by the project proponent have created an atmosphere where regulatory officials hesitate to report or act upon these serious violations.

In light of the above, we once again request the Ministry for the following actions:

1. Immediate inquiry and site inspection by a high-level team from MoEF&CC, New Delhi, at the Narayanposhi Mine.
2. Suspension of further EC consideration for this project until a full investigation of the violations is completed.
3. Referral of this matter to the MoEF&CC Violation Committee for appropriate legal action against JSW Steel Ltd.
4. Issuance of directions for demolition of the illegally constructed plant facilities, since post-facto ECs are impermissible under the Supreme Court judgment dated 16.05.2025.
5. Accountability measures against officials who allowed or ignored this unauthorized construction.

We urge your good office to take swift and decisive action to safeguard the environmental integrity of the region, uphold the rule of law, and protect the rights and livelihoods of the affected communities.

Your timely intervention will reaffirm the Government of India's commitment to environmental justice, transparency, and good governance.

Yours sincerely,


President
Odisha Janaadhikar Parishad

Bijay Parida

(President, Jana Adhikari Parisada)

Enclosure: Recent Photographs of Narayanposhi mine of JSW Steel Ltd.

Copy to:

1. The Hon'ble Chairperson, National Green Tribunal, email id: rg.ngt@nic.in, ps.chairmanngt@gmail.com, dr.ngt@nic.in
2. The Hon'ble Principal Bench of National Green Tribunal, New Delhi, email id: rg.ngt@nic.in, admn.ngt@nic.in
3. The Additional Chief Secretary, Department of Steel & Mines, Odisha, email id: dsmsec.or@nic.in, dsmsec.or@od.gov.in.
4. The Additional Chief Secretary, Department of Forest, Odisha, email id: fesec.or@od.gov.in
5. The Member Secretary, Odisha Pollution Control Board, email id: paribesh1@ospboard.org
6. Shri Pankaj Verma, Member Secretary, EAC, email id: Pankaj.verma@nic.in
7. Shri Niranjan kumar Vasu, Member EAC, email id: vasuifs@gmail.com
8. Shri Avijit Ghosh, Member EAC, email id: avijitmining@gmail.com
9. Dr. Asha Rajvanshi, member EAC, email id: asharajvanshi@gmail.com
10. Prof. Pramod Kumar, Member EAC, email id: nita_pramod@yahoo.com
11. Shri. Bandi Ramchandra Reddy, Member EAC, email id: reddyramchandra8858@gmail.com
12. Prof. Devesh Walia, Member EAC, email id: devesh.eac@gmail.com
13. Dr. Suresh Tiwari, Member EAC , smbtiwari@gmail.com
14. Dr. K.G Asha Manjari, Member EAC, email id: kimberlite2016@gmail.com
15. Prof. Dev Dutt Sharma, Member EAC, email id: ddshpu@gmail.com
16. Mr. V. K. Soni, Member EAC, email id: vjjay.soni@imd.gov.in
17. Dr. Y. G. Kale, Member EAC, email id: ygkale@ibm.gov.in
18. Shri Mohammad Niyazi, Member EAC, email id: dirtsnt.dgms@gmail.com
19. Shri Rajeev Ranjan, Scientist E, Member EAC, email id: Ranjan.rajeev@nic.in
20. Shri Krishnendu Modal, EAC member, email id: krishnendu.mondal@gov.in
21. Shri Vidyasagar Jha, EAC member, email id: Vidyasagar.jha@gov.in
22. The Central Bureau of Investigation, New Delhi, email id: hobacdel@cbi.gov.in
23. The Enforcement Directorate, New Delhi, email id: ed-del-rev@nic.in
24. The Central Vigilance Commission, New Delhi, email id: secy.cvc@nic.in

ANNEXURE-10



[Construction of 6MTPA iron ore beneficiation plant by JSW at Narayanposhi mine in 2023.]



[Construction of 6MTPA iron ore beneficiation plant by JSW at Narayanposhi mine in 2024]



The enlarged view of the beneficiation plant is shown below:-

[Aerial view of 6.0MTPA iron ore beneficiation plant by JSW Steel Ltd at Narayanoshi mine 2024]

PHOTOGRAPH DATED 26/12/2025 SHOWING THE RESPONDENT COMPANY HAS CONSTRUCTED THE PLANT PRIOR TO GRANT OF ENVIRONMENTAL CELARANCE



