



Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), Orissa)

To,

The Managing Director
 Tata Steel Mining Limited
 Regd. Office: Plot No-N3/24, IRC Village, Nayapalli, Bhubaneswar,
 Odisha. -751015

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/OR/MIN/78946/2020 dated 20 Jul 2022. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|---|
| 1. EC Identification No. | EC23B001OR155576 |
| 2. File No. | 78946/93-MINB1/07-2022 |
| 3. Project Type | New |
| 4. Category | B1 |
| 5. Project/Activity including Schedule No. | 1(a) Mining of minerals |
| 6. Name of Project | Saruabil Chromite Block (ML Area: 246.858 Ha) with a production of 1.0 MTPA Chromite Ore (ROM) with maximum excavation of 6.48 Million Cum per Annum through Opencast Mining at villages Saruabil, Kamarda, & Tailangi under Sukinda Tehsil, Jajpur District of Odisha State. |
| 7. Name of Company/Organization | Tata Steel Mining Limited |
| 8. Location of Project | Orissa |
| 9. TOR Date | 29 Dec 2020 |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 06/06/2023

(e-signed)
Dr. K. Murugesan, IFS
 Member Secretary
 SEIAA - (Orissa)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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statutory body constituted by Ministry of Environment, Forest & Climate Change under Environment
(Protection) Act, 1986)

SEIAA File No. 78946/93-MINB1/07-2022

Subject: Proposal for Mining of Chromite Ore from Saruabil Chromite Block (ML Area: 246.858 Ha) with a production of 1.0 MTPA Chromite Ore (ROM) with maximum excavation of 6.48 Million Cum per Annum through Opencast Mining located at villages- Saruabil, Kamarda, & Tailangi, Tahasil- Sukinda, District -Jajpur by M/s Tata Steel Mining Ltd-**Environmental Clearance reg.**

Sir,

This has reference to your online proposal No. SIA/OR/MIN/78946/2020 dated 20.07.2022, submitted to SEIAA, Odisha for grant of Environmental Clearance(EC) for Mining of Chromite Ore from Saruabil Chromite Block (ML Area: 246.858 Ha) with a production of 1.0 MTPA Chromite Ore (ROM) with maximum excavation of 6.48 Million Cum per Annum through Opencast Mining located at villages- Saruabil, Kamarda, & Tailangi, Tahasil- Sukinda, District - Jajpur by M/s Tata Steel Mining Ltd. filed by Sri.Pankaj Kumar, MD in terms of the provisions of the Environment Impact Assessment(EIA) Notification, 2006 under the Environment (Protection) Act,1986 and subsequent amendments thereto.

2. Proposal in Brief:

Proposal No.	SIA/OR/MIN/78946/2020
Date of Application	20.07.2022
File No.	78946/93-MINB1/07-2022
Project Type	Fresh EC
Category	B1
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for grant of EC for Mining of Chromite Ore from Saruabil Chromite Block (ML Area: 246.858 Ha) with a production of 1.0 MTPA Chromite Ore (ROM) with maximum excavation of 6.48 Million Cum per Annum through Opencast Mining located at villages- Saruabil, Kamarda, & Tailangi, Tahasil- Sukinda, District -Jajpur by M/s Tata Steel Mining Ltd.
Name of the company/Organization	Applicant: M/s Tata Steel Mining Ltd.; Sri Pankaj Kumar, MD
Location of Project	at villages- Saruabil, Kamarda, & Tailangi, Tahasil- Sukinda, District -Jajpur
ToR Date	29.12.2020

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3. **Project Details:** The highlights of the proposal as ascertained from the application as submitted by PP and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.
- (i) This is a proposal of M/s M/s. Tata Steel Mining Limited for EC of Mining of Chromite Ore from Saruabil Chromite Block (ML Area: 246.858 Ha) with a production of 1.0 MTPA Chromite Ore (ROM) with maximum excavation of 6.48 Million Cum per Annum through Opencast Mining located at villages Saruabil, Kamarda, & Tailangi, Tahasil- Sukinda, District -Jajpur filed by Sri Pankaj Kumar, MD.
 - (ii) The PP has submitted that earlier, M/s Misrilall Mining Pvt. Ltd. has operated Saruabil Chromite Block from 15.05.1954 till 31.03.2020. Odisha Government had issued the Letter of Intent (LOI) for Chromite ore mining in Saruabil Chromite Block to Tata Steel Mining Limited (formerly known as M/s T S Alloys Limited) over an area of 246.858 Ha for a period of 50 years vide letter no. 223/SM dated 6th January 2020. In terms of section 8B(2) of MMDR Act, 1957 read with rule 9A(4) of MCR, 2016, the bidder is deemed to have acquired all valid rights, approvals, clearances, licenses and the like vested with the previous lessee for a period of two years from the date of execution of the lease deed or till the date of getting fresh approvals, clearances, licenses, permits and the like whichever is earlier vide letter no. 4174/SM dated 29th May 2020. Lease deed for the Saruabil Chromite Block was executed on 26th June 2020.
 - (iii) The Terms of Reference (ToR) for undertaking detailed EIA studies was granted by MoEF & CC, GoI vide F.No-J11015/65/2020-IA.II(M) dated 29.12.2020.
 - (iv) Public Hearing: Public Hearing was conducted on 22.12.2021 at 11.00AM at Saruabil Football Ground, Saruabil in the District of Jajpur for the project. The major issues raised during public hearing were on environment, education, health, road safety, plantation, employment, etc. The PP has committed to comply the issues raised during public hearing.
 - (v) The proponent has applied to SEIAA, Odisha for EC as category B as per MoEF&CC Notification No. S.O. 1886(E) Dated 20th April, 2022.
 - (vi) Location and Connectivity: The Saruabil Chromite Block is spread over an area of 246.858 Ha and it falls in Survey of India Topo Sheet Open Series Map No. F45N16 (73G/16) with co-ordinates Latitude: N 21°02'42.64" to 21°03'49.65" and Longitude: E 85°48'35.38" to 85°49'49.92". Saruabil Chromite Block is situated in Jajpur district. Tomka Mangalpur State Highway passes through the lease area. The nearest National highway, NH – 200, is situated about 10.5 Km aerial distance from the proposed area and the Chromite block is at about 23 Km Road distance from Daitari Railway Station and 136 km distance from Biju Patnaik airport, Bhubaneswar.
 - (vii) The PP has submitted that the previous Environment Clearance for the project was granted in the name of M/s Mishrilall Mines Pvt. Ltd. for production of 0.35 MTPA Chromite Ore with expansion of Chromite Ore beneficiation plant from 20 TPH to 30 TPH by MoEF vide letter no. J-11015/72/2010-IA. II(M), dated 20.07.2018. However, COB plant has been dismantled by previous lessee.
 - (viii) Mining Plan has been approved by IBM, Bhubaneswar on dated 18.05.2018. Mining Plan of TSML was approved on 10.11.2020.
 - (ix) Mining Lease Details: The project involves a mining lease area of 246.858 Ha, comprising of 241.77 Ha Forest land and 5.088 ha non-forest land. Forest clearance (FC) has been

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accorded in favour of the previous lessee over an area of 224.63 Ha by MoEF & CC vide letter no. 8-100/95-FC dated 16.01.1997. After a joint verification conducted by the authorities, 17.14 ha of non-forest land has been recorded as forest land as per Sabik settlement on or before 25.10.1980. The application for remaining forest land i.e. 17.14Ha is yet to be accorded and proposal is under process. The lessee has paid NPV for the entire forest land of area 241.77 ha.

- (x) The PP has submitted that Consent to Establish has been obtained vide OSPCB letter no. 17116/IND-11-NOC-5663 dated 29.11.2016 for chrome ore production of 0.35 MTPA along with installation of chrome ore beneficiation plant of capacity 30 TPH. Again, Consent to Operate has been obtained vide OSPCB letter no. 14292/IND-I-CON-220 dated 03.12.2018 for Chrome ore (ROM) production of 0.35 MTPA and COB plant throughput capacity of 30 TPH which is valid up to 31.03.2020 has been vested by the State. Further, company has obtained fresh Consent to Operate vide OSPCB letter no. 4051/IND-I-CON-220 dated 16.03.2022 valid up to 31.03.2023.
- (xi) Surface right from District Collector, Jajpur over 242.581 Ha has been obtained.
- (xii) Ground water with drawl permission has been obtained from CGWA, (GoI) on dated 16.07.2019.
- (xiii) Deep hole blasting & use of HEMM has been obtained from DGMS, (GoI) dated 19.03.2019. Additionally, Tata Steel Mining Limited has obtained fresh approval from DGMS regarding Deep Hole Blasting and use of HEMM on dated 28.05.2021.
- (xiv) Method of Mining - The current project involves mining of Chrome Ore (Chromite) through a Fully Mechanized Opencast mining method with HEMM and deep hole blasting. The proposed production capacity is 1.0 Million Tonnes Per Annum of Chromite Ore (ROM) with total excavation of 6.48 Million Cubic Meters per Annum. The bench height will be about 6 m with width of 10 m. Bench slope has been designed at 70°. Maximum Overall Pit Slope angle 30°. Study of further slope steepening has been initiated under the guidance of CIMFR, Dhanbad. For Drilling and blasting - 150 mm diameter holes are drilled with depth of 6 to 8 m in ore body. Holes will be charged with SME with booster. Powder factor of 7 MT/kg in Ore. For Transportation - Dumpers (44 nos of 35 tonne capacity) are being used to transport the ore from quarry to stack yard.
- (xv) Production Details for the plan period (2020-21 to 2024-25)

Ore & OB Excavation during the plan period (2020-21 to 2024-25)				
Year/ Pit No.	Total ROM Production (MT)	Total ROM Production (CuM)	OB/Waste Volume from Development of Pits (CuM)	Total Excavation (CuM)
1 st year (2020-21)/ B & C	150000	44200	1,195,000	12,39,200
2 nd year(2021-22)/ B & C	400000	117800	1,491,000	16,08,800
3 rd year (2022-23)/ B & C	450000	132500	2,007,000	21,39,500
4th year (2023-24)/ B & C	700000	206100	3,639,000	38,45,100
5th year (2024-25)/ B & C	900000	264900	5,571,000	58,35,900
5th year (2024-25)/ D	100000	29400	619,000	6,48,400

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Sub Total (5 th Year)	1000000	294300	6,190,000	64,84,300
Total	2700000	794900	14,522,000	1,53,16,900

- (xvi) Power Requirement: The fully mechanized mining will be done in a three shift of 8 hours each. The use of electricity will be for lighting/illumination/pumping purposes in mining operations and will be obtained from CESU/ Tata Power/ Any other. The electricity/DG power will be provided at the office, camp, and mines. Power requirement of ~1000 KVA would be met from local grid maintained by Central Electricity Utility Services (CESU)/ Tata Power/ Any other.
- (xvii) Water Requirement: Total water requirement has been estimated to be 330 KLD. There are 2 borewells located inside the mine lease area. As the mine workings has intersected the groundwater table, seepage of groundwater is expected. Dewatering of mine will be undertaken and the water will be utilized for various purposes. Water requirement and usage has been detailed in table.

Activities	Daily Water Requirement, KLD	Effluent Generation, KLD	Losses, KLD	Treatment	Source of water
Drinking & Domestic Use, Canteen	40.00	32.00	8.00	Septic tank/ Soak Pit	Ground water from Borewell
Dust suppression	250.00	0.00	250.00	--	Mine pit water
Plantation & Gardening	100.00	0.00	100.00	--	Mine pit water
Workshop, Wheel wash & Vehicle wash	10.00	8.00	2.00	Treatment in Oil & Grease trap, recycled for wheel wash & dust suppression	Mine pit water
ETP wash water	20.00	0.00	20.00	--	Mine Pit water
Total	420.00	40.00	380.00		

- (xviii) Baseline study was conducted during October'2020 to December, 2020. The observations for Ambient air quality monitoring carried out in 8 different sampling locations during the study period are the concentration of PM₁₀ range from 29 to 64.1 µg/m³, PM_{2.5} range from 17 to 38.5 µg/m³, SO₂ range from <4 to 8.1 µg/m³, NO_x range from <9 to 13.6 µg/m³.

- (xix) The ground water samples were collected from 8 different sampling stations and analyzed as per IS 10500:2012 to assess the portability of the ground water. As Per the data it has been observed that the pH ranges from 5.06 to 7.78, total hardness varies from 14 to 180 mg/l, chloride ranges from 3.8 to 38 mg/l, TDS ranges from 20 to 316 mg/l in the buffer zone.

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- (xx) The surface water samples were collected from 8 different sampling stations. As Per the data it has been observed that the pH ranges from 7.21 to 7.84, DO ranges from 4.4 to 6.3 mg/l, COD ranges from 6.0 to 20 mg/l in the buffer zone.
- (xxi) The ambient noise levels were measured in 8 sampling locations. As Per the data it has been observed that Ambient noise ranges from 36.7 dBA to 60.4 dBA in the buffer zone.
- (xxii) The soil samples were collected from 12 different sampling stations. As Per the data it has been observed that pH ranges from 7.03 to 7.24, SAR ranges from 2.6 to 4.4 %, clay percent ranges from 59.8 to 73, all the metals are below detectable level in the buffer zone.
- (xxiii) Employment Potential - The project will generate 650 manpower in the mine.
- (xxiv) Total Cost of the proposed project will be Rs 179.91 crore with a recurring cost of Rs. 66.93 crores and EMP cost is Rs 26.75 crore with a recurring cost of Rs.1.79 crores. PP has allocated a budget of Rs.144.65 lakhs towards CER.
- (xxv) The project proponent along with the consultant M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar made a detailed presentation on the proposal on 03.08.2022.
- (xxvi) The PP has submitted ADS to SEAC on 17.10.2022.
4. The SEAC have appraised the proposal in its meeting dated 05.11.2022 and have recommended for grant of Environmental Clearance for the project, stipulating various conditions. The proposal was again referred back to SEAC and was again put up in the SEAC meeting held on 12.04.2023. The SEAC have reiterates its earlier recommendations in its meeting held on 05.11.2022 for grant of Environmental Clearance. The Proposal was put up in the 107th meeting of SEIAA held on 02.05.2023 & 03.05.2023 and the Authority observed & decided to seek the following:
- The Saruabil Chromite Block is an auctioned mines which has been acquired by M/s. Tata Steel Mining Ltd. and a vesting order issued vide letter no. 4174/SM dated 29.05.2020 acquiring all valid rights, approvals, clearance, license with the previous lessee for a period of 2 years from the date of execution of lease deed or till the date of forest approval or clearance/licenses.
 - As per the MoEF & CC, FC Division vide File no. F.No.11-97/2018-FC dated 08.02.2021 in Para (ii), for undertaking mining operation as per changed land use envisaged in new mining plan, the user agency needs to seek prior approval under the Forest (Conservation) Act. 1980 within the stipulated period of 2 years.
 - In the light of above guideline of MoEF&CC, the PP is required to clarify FC (Part/full) for Saruabil Chromite Block in their favour from MoEF & CC for further consideration of the proposal.
- The PP have submitted ADS to SEIAA on 25.05.2023. The PP has clarified that in compliance to the guidelines dated 08.02.2021 by MoEFCC, they have already intimated the change in land use pattern to Integrated Regional Office (IRO) of MoEFCC vide letter number TSML/MD/ 268 /2020 as per the guidelines existing then (MoEF & CC, Govt. of India Letter No. 11- 42/2017-FC, dated 29.01.2018). Forest diversion proposal for 17.14Ha vide proposal no. FP/OR/MIN/51793/2020 dated 22.10.2020 has been applied and is under process. Further, as per guidelines dated 07.07.2021, of MoEFCC, they have already applied for the transfer of the forest

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- clearance for the diverted area i.e 224.63ha in name of TSML and the application is under consideration at the State Government level.
5. This proposal conforms to the item no. 1(a)-'Mining of Minerals in the schedule of EIA Notification, 2006 as amended time to time, and the major mineral extraction project falls under Category B1 as the mining lease area is more than 5ha and ≤ 250 Ha.
 6. The matter was again examined in the State Environment Impact Assessment Authority (SEIAA), Odisha in its 121st meeting held on 31.05.2023, recommendation of SEAC, submission of PP and in accordance with the EIA Notification, 2006 and further amendments thereto. The Authority perused the reply of PP with reference to ADS dated 20.05.2023 and in the light of decision taken by MoEF& CC, Govt. of India vide their letter no. 23-236/2018-IA. III (V) dated 12.07.2021 for Daitari Iron ore mines and Joda East Iron Mines vide file no. J-11015/215/2008-IA. II (M) dated 13.04.2023.
 7. Environmental Clearance (EC) is granted under the provisions of EIA Notification No. S.O. 1533 (E) dated the 14th September, 2006 of the Government of India in the erstwhile Ministry of Environment and Forests, as amended from time to time for **"Mining of Chromite Ore from Saruabil Chromite Block (ML Area: 246.858 Ha) with a production of 1.0 MTPA Chromite Ore (ROM) with maximum excavation of 6.48 Million Cum per Annum through Opencast Mining located at villages- Saruabil, Kamarda, & Tailangi, Tahasil- Sukinda, District -Jajpur by M/s Tata Steel Mining Ltd"** with the following stipulations (specific and standard), environmental conditions and safeguards.

Stipulations:

A. Specific conditions:

- (i) The proposal involves a lease area of 246.858 ha comprising of 241.77 Ha Forest land and 5.088 ha non-forest land. Forest clearance (FC) has been accorded in favour of the previous lessee over an area of 224.63 Ha by MoEF& CC on dated 16.01.1997. The application for remaining forest land i.e. 17.14Ha is yet to be accorded. The lessee has paid NPV for the entire forest land of area 241.77 ha. **This EC will be restricted to 229.718 ha (224.63Ha stage-II FC available + 5.088 Ha (non-forest land)), mining activity will be restricted to non-forest land and the area for which stage-II FC is available.**
- (ii) **The production of Chromite ore @ 1.0MTPA from the already diverted forest land (229.718 Ha), subject to the permission from the Indian Bureau of Mines(IBM), for the period of 1(One) year from the date of EC granted.**
- (iii) **The Forest Clearance(FC) clearance issued in favour of the previous lessee shall have to be transferred in the name of M/s. Tata Steel Mining Ltd. within a period of 1(One) year from the date of EC granted.**
- (iv) **Grant of CTO after One year shall be subject to transfer of FC for 224.63 Ha in the name of M/s. Tata Steel Mining Ltd. and obtaining fresh FC for 17.14 ha.**
- (v) The mine shall explore implementation of membrane-based technology for removing

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hexavalent chromium from Surface run off & mine drainage water.

- (vi) The mine shall take adequate measures to minimize the discharge of treated water to Damsala Nallah and take appropriate measures to prevent pollution of the Damsala Nallah in consultation with the SPCB.
- (vii) The project proponent shall monitor analysis of hexavalent chromium in nearby soil and water body periodically and follow mitigation measures if necessary.
- (viii) The budget of Rs. 144.65 lakhs allocated towards CER/ to be completed within 3 years from the date of start of mining operations as proposed. PP shall also comply all action plans made for public hearing concerns and make regular maintenance and record the progressive activity outcomes. Further, the PP shall also comply all activities listed in CSR activities, as proposed.
- (ix) The amount proposed under Corporate Environment Responsibility (CER) head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and details of implementation of CER activities along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, photographs & Geo-location of the infrastructures/facilities developed, etc. to the Regional Office of MoEF&CC, Bhubaneswar and SEIAA, Odisha before 1st July of every year for the activities carried out during previous year.
- (x) The amount (except occupational health) proposed under Environmental Management Plan (EMP) head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and detailed environment monitoring report along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, sampling reports, photographs & Geo-location of the infrastructures/facilities developed, details of persons engaged in Environment Management Cell etc. to the Regional Office of MoEF&CC, Bhubaneswar and SEIAA, Odisha before 1st July of every year for the activities carried out during previous year.
- (xi) The amount proposed under Occupational Health plan head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and detailed environment monitoring report along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, sampling reports, photographs & Geo-location of the infrastructures/facilities developed, details of persons engaged in Environment Management Cell etc. to the Regional Office of MoEF&CC, Bhubaneswar and SEIAA, Odisha before 1st July of every year for the activities carried out during previous year.
- (xii) The PP shall undertake the adequate plantation in peripheral zone as well as gap plantation with the seedling of 6-8ft height with at least 90% survival rate to control the dust at source and should be completed within 3 years from the date of commencement of

Signature



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mining operations. Causalities of the previous year should be replaced other than the saplings proposed to be planted every year.

- (xiii) The proponent shall comply all the specific conditions as recommended by CSIR-NEERI in time bound manner as submitted in EIA/EMP report(as per ToR Conditions) & as applicable for the project.

B. Standard Conditions -

I. Statutory compliance:

- (i) 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.
- (ii) 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.
- (iii) 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.
- (iv) 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.
- (v) This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, as applicable to the project.
- (vi) 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.
- (vii) 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.
- (viii) 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.
- (ix) The Project Proponent shall follow the mitigation measures provided in MoEF&CC'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".

by



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- (x) 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 groundwater for the project.
 - (xi) 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.
 - (xii) State Pollution Control Board shall be responsible for display of this EC letter at its Regional Office, District Industries Centre and Collector's office/ Tahasildar's Office for 30 days.
 - (xiii) 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 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 MoEF&CC Regional Office for compliance and record.
 - (xiv) The Project Proponent shall inform the MoEF&CC/SEIAA, Odisha 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.
- (I) Air quality monitoring and preservation**
- (i) The Project Proponent shall monitor critical parameters, relevant for mining operations, of air pollution viz. PM₁₀, PM_{2.5}, 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.
 - (ii) 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 PM_{2.5} 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 MoEF&CC/ Central Pollution Control Board.
- (II) Water quality monitoring and preservation**
- (i) 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 SEIAA, Odisha is in place before such mining operations. The permission for intersection of ground water

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- table shall essentially be based on detailed hydro-geological study of the area.
- (ii) 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 Integrated Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- (iii) 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 Integrated Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- (iv) 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-a-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 SEIAA, Odisha. 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 be sent regularly to the Integrated Regional Office, Bhubaneswar of MoEF & CC, GoI, SEIAA, Odisha, 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.
- (v) 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 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.

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- (vi) The project proponent shall construct retaining wall and settling pond within the lease area. Further, check dams shall be constructed at strategic locations in which rain water passes in rainy season. Finally, the excess supernatant after sedimentation shall be allowed to spill away through stone pitch structure to the nearby valley.
 - (vii) De-silting of agricultural lands in buffer zone and beyond including nearby Nalas/rivers perennially periodically and perpetually caused due to wash up of minerals/OB/dumps shall be done as per SOP submitted. Retaining wall shall be constructed to ensure that no silt after wash up is escaped from the core / buffer zone of the mines.
 - (viii) 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 Integrated Regional Office, MoEF & CC as a part of compliance in the six monthly compliance report.
 - (ix) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated in an ETP as proposed so as to conform to the notified standards prescribed from time to time, as applicable. 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.
 - (x) 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.
- (III) Noise and vibration monitoring and prevention**
- (i) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
 - (ii) 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.
 - (iii) The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The worker 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.
- (IV) Mining Plan**
- (i) 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

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& dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of competent authority 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.

- (ii) 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.
- (iii) 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-a-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 concerned Integrated Regional Office, Bhubaneswar of MoEF & CC, GoI.

(V) Land reclamation

- (i) 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.
- (ii) 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.
- (iii) The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
- (iv) 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.
- (v) 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, Govt. of India, Bhubaneswar as well as SEIAA, Odisha.

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- (vi) Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and topsoil / OB / waste dumps to prevent runoff 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.
 - (vii) 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.
 - (viii) 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.
 - (ix) The mining lease holders shall, after ceasing mining operations, undertake re-grassing 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.
- (VI) Transportation**
- (i) No Transportation of the minerals shall be allowed in case of roads passing through 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.
 - (ii) The Main haulage road within the mine lease should be provided with a permanent water 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

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- shall take necessary measures to avoid generation of fugitive dust emissions.
- (iii) Traffic management shall be done as per recommendation of Traffic Management Study Report.
 - (iv) The Project Proponent shall provide parking plaza for the heavy vehicles within the lease area as per recommendation of NEERI, if applicable to the project
- (VII) Green Belt**
- (i) 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.
 - (ii) 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.
 - (iii) 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.
 - (iv) 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 and implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.
- (VIII) Human health issues, Public hearing & CER**
- (i) 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 taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.
 - (ii) A commitment in form of an undertaking for periodical occupational health checkup of

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the employee and the local people shall be done through an occupational health expert as per the detailed action plan submitted with the proposal within 6 months from the date of issue of Environmental Clearance.

- (iii) 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 neighborhood 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.
- (iv) 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 (Mn) 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, Aluminium, 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 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).
- (v) 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 (FEV1),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, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.

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- (vi) The Project 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.
 - (vii) 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, creche 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.
 - (viii) The project proponent shall submit the time-bound action plan to the concerned integrated regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public hearing by the project proponent and as submitted to SEAC, in terms of the provision of the MoEF & CC Office Memorandum No-22-65/2017-IA.III dated 30th September, 2020. The action plan shall be implemented within three years of the commencement of the project.
 - (ix) 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 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. 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 IRO, Bhubaneswar, MoEF&CC, OSPCB & SEIAA, Odisha.
- (IX) Miscellaneous**
- (i) 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.
 - (ii) 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.
 - (iii) The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the concerned Integrated Regional Office (IRO), Bhubaneswar of Ministry, SEIAA, Odisha, Central Pollution Control Board and State Pollution Control Board.
 - (iv) An Environmental Management Plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. 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.
 - (v) The project proponent shall augment infrastructure on drinking water, health care and education in nearby villages as per time bound action plan submitted.

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- (vi) The project proponent shall obtain permission from DGMS under 106(2b) to carry out blasting operation within the lease area.
- (vii) It shall be mandatory for the project management to submit six (06) monthly compliance reports on post environmental monitoring in respect of the stipulated terms and conditions in this Environmental Clearance to the State Environment Impact Assessment Authority (SEIAA), Odisha, SPCB & Regional Office of the Ministry of Environment & Forest, Odisha in hard and soft copies on 1st June and 1st December of each calendar year. The proponent shall also upload the six monthly compliance report including results of monitored data, as applicable in the website of the Ministry(www.parivesh.nic.in) for monitoring of EC Conditions.
- (viii) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the Odisha State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective to the concerned Integrated Regional Office(IRO),Bhubaneswar of MoEF & CC,Gol, Central Pollution Control Board and State Pollution Control Board.
- (ix) The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- (x) 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.
- (xi) The SEIAA, Odisha may revoke or suspend the EC, if implementation of any of the above stipulated conditions is not satisfactory. The SEIAA, Odisha reserves the right to alter /modify the above conditions or stipulate any further condition in the interest of environment protection.
- (xii) 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.
- (xiii) 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.

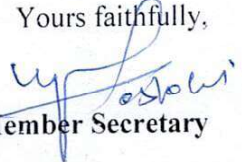
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- (xiv) Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Yours faithfully,


Member Secretary

Copy to:

1. **Joint Secretary (IA Division)**, Ministry of Environment, Forests and Climate Change Govt. of India, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi-110003 for information.
2. **Additional Chief Secretary**, Forests & Environment Dept., Government of Odisha for information.
3. **Member Secretary**, State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-8, Bhubaneswar for information.
4. **Additional Principal Conservator of Forests**, Integrated Regional Office (IRO), Ministry of Environment & Forests, A/3, Chandrasekharapur, Bhubaneswar for information.
5. **Regional Director**, CGWA, South Eastern Region, Bhujal Bhawan, Khandagiri, Bhubaneswar, Pin-751030.
6. **The Director of Mines**, Odisha, Directorate of Mines, Bhubaneswar, Pin-751001/DDM, Jajpur/DFO, Cuttack forest Division for information and necessary action.
7. **Collector & DM**, Jajpur for Information and necessary action.
8. Guard file for record/Website/Parivesh Portal.


Member Secretary

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Validity unknown

Digitally signed by Dr. K. Murugesan, IF6
Member Secretary
Date: 6/6/2023 4:49:05 PM