

To

**The Director (IA),
Ministry of Environment, Forest & Climate Change,
Government of India,
3rd Floor, Vayu Vihar, Indira Paryavaran Bhawan
Jorbagh Road, Aliganj
New Delhi – 110 003**

Sub.: Application for the grant of Environmental Clearance (EC) from MoEF&CC, New Delhi for 30.0 MTPA iron ore production from Guali Iron Ore Mine (Area:358.258 Ha as per DGPS/365.026 Ha as per RoR) of M/s. OMC Ltd located in Keonjhar District, Odisha.

Ref.: ADS by MoEF&CC on dt. 31.10.2022

Sir,

The information sought by MoEF&CC, Govt. of India, vide ADS dt. 31.10.2022 is detailed hereunder:

Sl. No.	Information Sought	Compliance Status
i.	The Project Proponent has not submitted the compliance of the NEERI conditions for the first 20 points and the reply given for the remaining points are not in proper format.	Compliance of the NEERI conditions is enclosed herewith as Annexure-I
ii.	Forest clearance documents not readable	The legible copies of Forest clearance are enclosed herewith as Annexure-II.
iii.	Wildlife conservation plan was approved on 17.01.2009 for 10 years. Please provide proof of submission of latest Wildlife Conservation Plan to State Department.	As per the guidelines of State Forest Department, Govt. of Odisha, the Site-Specific Wildlife Conservation Plan is under preparation by DFO, Keonjhar for onward submission to PCCF(WL) & CWLW, Odisha for its approval.
iv.	Certified Production details for the year 2021-22	The copy of the Certified Production details from July 1973 till 2021-22 is enclosed herewith as Annexure-III
v.	Present status of Forest	Out of 358.258 ha of mining lease area, 332.10

Odisha Mining Corporation Ltd.
(A Gold Category State PSU)

Registered Office : OMC House, Bhubaneswar - 751001, India
Tel : 0674-2377400/2377401, Fax : 0674-2396889, 2391629, www.omcltd.in
CIN : U13100OR1956SGC000313

	Clearance	<p>ha is Forest Land. The status of Forest Clearance is as under:</p> <ul style="list-style-type: none"> • Stage-II Forest Clearance of the mine has been accorded for an area of 42.417 ha by MoEFCC (FC Division) vide letter no. 8-96/96-FC dated 14.01.2005. • Stage-II Forest Clearance for another 95.00 ha has been accorded by MoEFCC (FC Division) vide letter no. 8-96/96-FC (Pt) dated 06.09.2011. • Application for balance 194.683 ha of forest land has been made by OMC Ltd. vide proposal no. FP/OR/MIN/140713/2021, dated 12.04.2021. At present the forest diversion proposal is under scrutiny by Govt. of India.
vi.	Present status of demand notice for Rs. 29,39,18,019/- by Jt. Director of Mines Joda, Keonjhar, Odisha.	<p>The letter dt. 03.11.2022 by DDM Joda states that, the compensation amount of Rs.29,39,18,019/- as demanded towards violation of MP/CTO vide letter dt.23.10.2017 has not yet been deposited by the ex-lessee, and the Lessee has filed Revision Application before the Mines Tribunal, Govt. of India, Ministry of Mines, New Delhi vide Revision Application No.22/84/2017/RC-I and the RA vide order dated 21.12.2018 have been remanded back to the State Government to hear the matter and pass a detailed and reasoned order.</p> <p>The Government have disposed off the case vide Proceedings No.8935/SM, dt.17.09.2022 and ordered to realize the demanded amount of compensation. On the basis of abovesaid order, a demand notice was issued from the Office of the DDM office vide Letter No.4169/Mines dt.26.09.2022 for the amount of Rs.29,39,18,019/-, which is not yet paid by the ex-lessee, the copy of the letter by DDM. Joda is enclosed as Annexure – IV.</p> <p>Further it is understood that Sri Ramesh Prasad Sao, Ex-lessee of Guali Iron Ore Mines has filed Revisional Application No. 22/26/2022 RC-I on 18.10.2022 before the Revisional Authority, Mines Tribunal, New Delhi under Section 21(5) of the MMDR Act, 1957. Comments has been</p>

		submitted from the State Govt. on 31.10.2022.The case is pending.
vii	Court case status	OMC has no litigation and has not received any court notice so far in respect of Guali mines after allotment of the mine to OMC.

It is sincerely requested for consideration of EC proposal in respect of Guali Iron Ore mines at the earliest.

Encl:As above

Yours faithfully,



(Dr. Suman Krishna Sit)
General Manager (Geo)
Authorised Signatory

Suman Krishna Sit
General Manager(Geo)
Power of Attorney Holder
Odisha Mining Corporation Ltd.
Bhubaneswar

ANNEXURE-I

Compliance for the recommendation of NEERI report on "Carrying Capacity Study for Environmentally Sustainable Iron & Manganese Ore Mining activity in Keonjhar, Sundargarh & Mayurbhanj District of Odisha" for Guali Iron Ore Mine of OMC

Sl. No.	NEERI Recommendation	Compliance Status
1.	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.	Necessary environmental protection measures is being adopted and also adhere to the Sustainable Annual Production (SAP) limit indicated in regional plan prepared by the Department of Steel & Mines, Govt. of Odisha.
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.	Mining of iron ore only has been planned and manganese mining is not envisaged for Guali mine. At present, Guali is being operated at approved EC capacity of 5.7 MTPA. Enhancement of capacity from 5.7 MTPA to 30 MTPA has been planned.
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.	The mine is operating with strict compliance to monitoring of environmental quality parameters as per EC and CTE/CTO conditions, and suggested measures for control of road dust and air pollution.

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4.	Considering the existing environmental quality, EC capacity, production rate, iron ore resources 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.	OMC is following State Govt. guidelines in this regard.
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.	Monitoring of environmental quality parameters as per EC and CTE/CTO conditions w.r.t. air, noise, water (surface & ground water) and soil quality is being carried out regularly by Visiontek Consultancy Services Pvt Ltd. a NABL accredited laboratory. The relevant parameters of air (6-location), noise (3-location), surface water (5-location), ground water (5-location) and soil (1 location) are being analysed. This year, there is proposal for analysis of soil sample at 4 locations
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.	~200m concrete road to Block-B has already been constructed. Further, there is proposal for 700 m concrete road for Block-A, the work is in process. (Block-A entry-345m, Block-A exit-355,). Green belt has been developed on 11.324 ha area. Gap plantation with ~9150 saplings have been carried out by OMC since Jan. 2021. Further, green belt is being developed and maintained along the roads.

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.

Code	EC	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
SOTM 4	<1 MTPA	100 % by 10/17 Ton Trucks or above options

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.

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.

However, the State Govt. of Odisha shall ensure dust free roads in mining areas wherever the road transportation of mineral is involved. The road

As per approved EC capacity; SOTM-1 is applicable for transportation of Iron ore.

During expansion, the mineral transportation will be as per SOTM-1, i.e. 70% (21.0 MTPA) iron ore will be evacuated through slurry pipeline and remaining 30% (9.0 MTPA) by trucks through National Highway 520 to the railway siding / buyers units.

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	<p>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. 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>	
8.	<p>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. Period: 1 Year</p>	<p>Currently there is no dedicated parking plaza inside the ML area due to paucity of space within mine lease. An area of 12.32Ac. along the side of NH-520 in village Rengalbeda is being developed as parking plaza.</p>
9.	<p>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>	<p>In line with the recommendation of NEERI, the State Govt. with PWD/NHAI has already taken steps and four lanning of NH-215 (new NH-520) is in progress.</p>
10.	<p>Regular vacuum cleaning of all mineral carrying roads aiming at "Zero Dust Re- suspension" may be considered. Responsibility: PWD / NHAI / Mine</p>	<p>Currently there is one road sweeping machine at Guali.</p>

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	Lease Holders; Time Period: 3 months for existing roads.																																
11.	Expansion of existing and new mines should be considered after conducting recent EIA study as per the 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>Mine lease ML executed in favour of OMC on 12.01.2021 as per LoI dtd. 11.01.2021 issued by Department of Steel & Mines, Govt. of Odisha.</p> <p>Mining Plan for 30 MTPA has been approved by Indian Bureau of Mines (IBM) vide letter No.MP/A/38-ORI/BHU/2020-21/2916 dated 19.03.2021</p> <p>Terms of Reference (ToR) application for the proposed expansion of Guali Iron Ore mining project from 5.7 MTPA to 30.0 MTPA was approved by MoEFCC vide letter no. IA-J-11015/31/2021-IA.II (M) dated 04.08.2021. EIA-EMP studies for expansion of mine has been prepared by MECON Ltd. a NABET accredited EIA Consultant as per EIA Notification, 2006 & subsequent amendment.</p>																															
12.	<p>Mine-wise Allocation of Annual Production: 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 as suggested in Table, so that demand for iron ore can be anticipated, and actual production/dispatch does not exceed the suggested annual production.</p> <table border="1" data-bbox="302 1182 1189 1426"> <thead> <tr> <th rowspan="3">Mine Lease</th> <th rowspan="3">EC Capacity (MTPA)</th> <th colspan="5">Suggested Annual Production (MT)</th> </tr> <tr> <th>2016-17</th> <th>2017-18</th> <th>2018-19</th> <th>2019-20</th> <th>2020-21</th> </tr> <tr> <th>Yr 1</th> <th>Yr 2</th> <th>Yr 3</th> <th>Yr 4</th> <th>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> </tbody> </table>	Mine Lease	EC Capacity (MTPA)	Suggested Annual Production (MT)					2016-17	2017-18	2018-19	2019-20	2020-21	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Mine 1	X1						Mine 2	X2						OMC will abide by the allowable suggested production / dispatch quantity of Department of Steel & Mines, Govt. of Odisha.
Mine Lease	EC Capacity (MTPA)			Suggested Annual Production (MT)																													
				2016-17	2017-18	2018-19	2019-20	2020-21																									
		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5																											
Mine 1	X1																																
Mine 2	X2																																

	Mine 3	X3						
	Mine n	Xn						
	Total	160 + dX	105	129	153	177	201	
	<u>Next year allocation = Average of EC Capacity and Last year production</u>							
13.	<p>Expansion of Existing Mines having Validity up to 2020: In view of implementation of MMDR Act 2015, wherein many non-captive mines are expected to be closed by March 2020, total iron ore production scenario has been. It is expected that the non- captive mines having validity till 2020 shall try to maximize their production (limited to EC capacity) in the remaining period. Further, depending upon availability of iron ore resources, these mines may also seek expansion of EC capacity. It may be noted here that total EC capacity of existing 25 working mines having validity upto 2020 is about 85 MTPA, whereas actual production from these mines has been only 44.677 MT (52.6%) during 2015-16 and 57.07 MT (67.1%) during 2016-17. Also, it is expected that these mines would not even be able to achieve ore production as per existing EC capacity till March 2020. <u>Therefore, these existing mines should go for production to the fullest extent to meet the requisite demand from the State. However, where EC limit is exhausted, application for expansion may be considered.</u> 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 about one year time. <u>Under such circumstances, it is suggested that further applications for grant of TOR or grant of EC for expansion of production capacity of the mine should be considered for those existing mines, which have exhausted their capacity subject to consideration of all environmental aspects.</u> Responsibility: Department of Steel & Mines and MoEF&CC, New Delhi.</p>							Noted.
14.	Sustained Iron Ore Production beyond 2020: Considering the implementation of MMDR Act 2015, total production of iron ore in Odisha							Noted.

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	<p>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 MT during 2019-20. Then there will be substantial drop in total production (to the tune of 73 MT during 2020-21 onwards) due to closure of mines, which are valid up to 2020. Therefore, in order to maintain operation/sustained growth of downstream industries, iron ore mining in the region needs to be continued at a sustainable rate. The State Govt. through Department of Steel and Mines should initiate appropriate action to ensure continued availability of iron ore from the region, as per suggested sustainable annual production</p>	
<p>15.</p>	<p>Reserves Estimation – Mining Plan and Exploration: Appropriate actions (geo-technical investigation for qualitative and quantitative resource estimation & other preparations for auction of mines), may be 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 ground water 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. 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>	<p>Noted.</p>
<p>16.</p>	<p>Depending upon availability of extractable iron ore resources within a mine, mining below the ground water table may be permitted after</p>	<p>Ground water table in the lease area is at 515-525 m, AMSL and ultimate pit limit is 446 m, AMSL. Ground water will be</p>

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	<p>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, <u>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.</u> 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>	<p>intersected as the ultimate pit limit shall be 446 m AMSL.</p> <p>The quarry discharge will be used for industrial purpose within mine lease. A hydrogeological study has been carried out by M/s Hydrominviron Consultancy Pvt. Ltd., Jaipur. An application (vide no. letter no. 1796/OMC/F&E/2022 dated 02.02.2022) has been made for obtaining necessary permission for working below ground water and for pumping of ground water.</p>
<p>17.</p>	<p>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>	<p>R&D studies towards utilization of low-grade iron ore will be done through research/academic institutes like IMMT, Bhubaneswar or any other institution of national repute.</p>
<p>18.</p>	<p>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 upto public railway siding needs to be created. The total length of the conveyor belt system/ rail network to be developed</p>	<p>Noted.</p>

	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). <u>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.</u>	
19.	State Govt. of Odisha shall make all efforts to ensure <u>exhausting all the iron & manganese ore resources in the existing working mines and from disturbed mining leases/zones in Joda and Koira region.</u> The criteria suggested shall be applicable while suggesting appropriate lease area and sustainable mining rate. Responsibility: Dept. of Steel & Mines, Govt. of Odisha	Noted.
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. <u>Therefore, new mine leases having more than 50 ha area should be encouraged, as far as possible.</u> This will ensure inter-generational resource availability to some extent. Responsibility: Dept. of Steel & Mines, Govt. of Odisha	Noted. Reclamation and rehabilitation plans shall be implemented as prescribed in the approved mining plan and EMP to sustain the ecology for scientific and sustainable mining.
21.	Mining Operations/Process Related: (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 <u>dust extractors or equipped with water injection system.</u> (ii) After commencement of mining operation, <u>a study should be conducted to assess and quantify emission load generation (in terms of air pollution,</u>	(i) Mining & Process technology details are given in chapter-2 of the EIA/EMP report. Machineries of right capacity, fuel efficient which generates minimal dust/air, noise pollution, waste-water/solid wastes have been planned and the same shall be implemented from the date of commencement of mining operation. (ii) A study will be conducted within one year from the

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<p><u>noise, waste water and solid waste) from each of the mining activity (including transportation) on annual basis.</u> 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) <u>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.</u> 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>expansion of mining operation 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 and accordingly efforts will be made to further eliminate/ minimize generation of air pollution/dust, noise, wastewater, solid waste generation in successive years through use of better technology.</p> <p>(iii) Inspection and maintenance of all the machineries/ equipment/ transport vehicles will be done as per manufacturer's instructions/ recommended time schedule and record shall be maintained.</p> <p>(iv) Digital processing of the entire lease area for the monitoring of land use pattern has been prepared by ORSAC, Dept. Of Science & Technology, Govt. of Odisha. The copy of the same has been submitted to the Ministry vide letter No. 16465/OMC/F&E/2021 dt. 02.11.2021. The same shall be done once in 3 years for monitoring the land use pattern and the mining activity.</p>
<p>22. Air Environment Related: (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. <u>Minimum four ambient air quality monitoring stations should be established in the core zone for SPM, PM10, PM2.5,</u></p>	<p>(i) Fugitive dust emissions from all the sources will be controlled regularly on daily basis through the mitigation measures suggested in EMP (Clause 4.4.2) from the date of commencement of mining operation. Possibility of water fogging system will be explored and adopted; wherever feasible, to minimize water consumption.</p> <p>(ii) Ambient air quality monitoring is being done by agency recognized by MoEF&CC, Govt. of India regularly. Additionally, Online CAAQMS System (3 nos.) have been</p>

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	<p>SO₂, NO_x 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. <u>Out of four stations, one should be online monitoring station in the mines having more than 3 MTPA EC Capacity.</u> (iii) <u>Monitoring in buffer zone should be carried out by SPCB or through NABET accredited agency.</u> In addition, air quality parameters (SPM, PM₁₀, PM_{2.5}, SO₂, NO_x 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. Further, 11 continuous air quality monitoring systems 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 in transportation of mineral. (v) <u>The vehicles shall be covered with a tarpaulin and should not be overloaded. Further, possibility of 3 using closed container trucks should be explored for direct to destination movement of iron ore.</u> 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>installed and data is transmitted to OSPCB server. (iii) Vehicular emission monitoring is being done regularly by Visionteck Consultancy Services Pvt Ltd. (iv) Regular maintenance of vehicles as well as heavy machinery used in mining operations and in transportation of mineral will be done and records will be maintained for the same on regular basis.</p>
23.	<p>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.</p>	<p>(i) Blasting is being done in day time during 1.00 PM to 2.00 PM as per requirement. Controlled blasting with proper spacing, burden and stemming is being / will be maintained. Mitigation measures as suggested in EMP (Clause 4.5.3.3 & 4.5.3.4) w.r.t. blasting techniques and controlling fly rocks. (ii) Mitigation measures as suggested in EMP (Clause 4.5.3.5)</p>

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	<p>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 atleast once in month, and mapped for any significant changes due to successive mining operations. Responsibility: Individual Mine Lease Holders.</p>	<p>will be followed and the records will also be maintained. (iii) Noise level monitoring is being done by agency recognized by MoEF&CC, Govt. of India. (iv) Ground vibration study at sensitive zone has been undertaken by CIMFR Dhanbad and all the suggestion will be implemented.</p>
<p>24.</p>	<p><u>Water/Wastewater Related</u> : (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 water course 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 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</p>	<p>(i) Ground water table will be encountered as the ultimate pit limit shall be 446 m AMSL and ground water table is at 515 to 525 level. (ii) Monitoring of flow rate of springs, Topadihi nala, Sona Nadi, Karo Nadi etc. and monitoring of water quality of nallas is being / will be carried out on monthly basis by agency recognized by MoEF&CC, Govt. of India. (iii) Piezometer along with water level recorder has been installed at three (3) (two numbers inside ML area & one outside the ML area) numbers of ground water monitoring wells. (iv) Ground water quality monitoring is being done by agency recognised by MoEF&CC, Govt. of India. (v) Suitable rainwater harvesting & water conservation measures will be adopted within and in periphery of mines premises. (vi) As such there will be no generation of waste water from the mines. However, in order to prevent siltation, storm water will be collected through garland drains and discharged to the natural streams after being routed</p>

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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 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

through settling pits to settle out suspended solids.

- (vii) Oil and grease trap will be installed before discharge of workshop effluents.
- (viii) Sewage treatment plant will be installed for the employees/colony.
- (ix) Same as point (vi)
- (x) Over burden dumps will be protected by providing geo-textile matting followed by vetiver plantation when becomes inactive and in line with the prescriptions in approved mining plan/scheme by IBM.
- (xi) Existing 4 numbers check dams (one outside the ML in Topadihi Nalha, 3 Numbers inside ML) have been constructed across seasonal / perennial nallas flowing through the mine lease areas and the same shall be de-silted periodically.
- (xii) Provisions for utilization of collected water within the mine will be made for water sprinkling on hauls roads, green belt development.
- (xiii) Zero waste-water discharge shall be achieved by adopting maximum recycle and reuse of water within the mine premises and water balance diagram will be prepared accordingly on monthly basis.

	<p>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>	
25.	<p>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 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 for watering the mine area, roads, green belt development etc. The drains should be regularly de-silted, particularly after monsoon and should be</p>	<p>(i) The top soil will be stored in an earmarked place and will be utilized for green belt development within mines premises.</p> <p>(ii) No grazing land will be used.</p> <p>(iii) Low grade ore will be blended with higher grade. Dumps will be progressively reclaimed. Proper records will be maintained regarding species, their growth and area coverage during rehabilitation of OB dump.</p> <p>(iv) Catch drains and siltation ponds of appropriate size will be constructed to arrest silt and sediment flows from mine operation, soil, OB and mineral dumps.</p> <p>(v) OB will be kept in dumps and also utilised for road maintenance. No OB dumps outside the mine lease area is envisaged under the present proposal. The dump area should be afforested. Monitoring and management of rehabilitated areas should continue till the vegetation is established and becomes self-generating.</p> <p>(vi) Hazardous waste such as, waste oil, lubricants, resin, and coal tar etc. will be disposed-off as per provisions of Hazardous Waste Management Rules, 2016, as amended from time to time.</p>

	<p>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>	
26.	<p>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 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</p>	<p>(i) OMC will abide by the directions of State Wildlife & Forest department, in this regard, if any.</p> <p>(ii) As per the location map duly authenticated by DFO Keonjhar, Odisha Karo-Karampada Elephant corridor is 3.2 km (NW) from Guali lease boundary.</p> <p>(iii) Site specific wildlife conservation plan (SSWLCP) has been approved by PCCF (WL) for implementation within the core and buffer zone of the ML area. Management measures as suggested in SSWLCP for the core zone is being implemented by OMC and the cost towards implementation of the measures as specified in SSWLCP to be executed by the DFO of Rs. 277.00 lakh has been deposited to the State Forest & Wildlife Department.</p> <p>(iv) Details of afforestation and species details has been indicated in clause 4.6.3 of the EIA/EMP report. Plantation</p>

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<p>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/scrubs 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</p>	<p>scheme has been prepared considering suggested measures like selection of local and mixed species, plantation of fruit bearing trees to attract fauna etc. to enhance the biodiversity of the region.</p> <ul style="list-style-type: none"> (v) Monitoring of green belt development shall be done till it becomes self-sustaining. Parameters like (<i>area under vegetation/plantation, type of plantation, type of tree species /grass species/scrubs etc., distance between the plants and survival rate</i>) shall be recorded. (vi) Green belt development will be carried out by in vacant places within mines premises, both sides of haul road, safety zone area and will be monitored periodically. (vii) Vetiver plantation for dump stabilization shall be adopted. (viii) OMC will extend full co-operation and assistance to the State Forest Department in this regard, if required. (ix) OMC will extend full co-operation and assistance to the State Forest Department in this regard, if required. (x) OMC will extend full co-operation and assistance to the State Forest Department in this regard, if required.
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	<p>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>	
27.	<p>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 "<i>Samagra Vikas</i>" of these blocks well as other blocks of the district. While planning for different schemes in the region, the activities should be</p>	<p>(i) Public consultation shall be done on regular basis to assess the need of basic amenities and infrastructure requirement of the local people. Outcome of the consultation shall be used for formulation of activities under CSR scheme.</p> <p>(ii) R&R is envisaged under the present proposal. Mining in private lands within Guali ML will be undertaken in due adherence to the provisions of Rule 52 & Rule 53 of Mineral Concession Rules, 2016.</p> <p>(iii) OMC's CSR activities shall be aligned with the guidelines/initiative of GoI. OMC will extend full co-operation and assistance to the District administration for their planning towards "<i>Samagra Vikas</i>" and prioritized as per Pradhan Mantri Khanij Kshetra Kalyan Yojna (PMKKKY).</p>

	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.	
28.	Road Transport Related: (i) <u>All the mine lease holders should follow the suggested ore transport mode (SOTM), based on its EC capacity within next 5 years.</u> (ii) <u>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.</u> (iii) <u>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.</u> Responsibility: Individual Mine Lease Holders and Dept. of Steel & Mines.	Compliance same as point (7) and (6).
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 record should be maintained including	<p>(i) PPEs with adequate training on OHS is being / will be provided to the personnel working in dusty areas and the records will also be maintained.</p> <p>(ii) Occupational health surveillance program is being /will be undertaken periodically and the records will also be maintained for any changes due to exposure to dust, and corrective measures shall be taken immediately, if needed.</p> <p>(iii) Periodic monitoring (on 6 monthly basis) for exposure to respirable minerals dust on the workers is being / will be done. A full-time qualified doctor is engaged for the purpose. Occupational health centre has been established near the mine site.</p>

	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)									
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.	Environmental sustainability report will be prepared by OMC on annual basis and submitted to SPCB, Odisha.								
31.	<p>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 Soil Quality in each region (Joda, Koira and Baripada/Rairangpur)</td> <td></td> <td></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 Soil Quality in each region (Joda, Koira and Baripada/Rairangpur)			<p>Point-wise compliance proposal is mentioned below against each point:-</p> <p>(i) OMC will abide by the directions of SPCB in this regard, if any. Three (3) online CAAQMS System have been installed.</p> <p>(ii) OMC will abide by the directions of State Wildlife & Forest department, in this regard, if any.</p> <p>(iii) OMC will abide by the directions of District Administration in this regard, if any.</p> <p>(iv) OMC will abide by the directions of OSPCB in this regard, if any.</p> <p>(v) OMC will abide by the directions of Department of Steel and Mines in this regard, if any.</p> <p>(vi) ~200m concrete road to Block-B has already been constructed. Further, there is proposal for 700 m concrete</p>
Sr. No.	Study Component/ Action Plan	Responsibility	Monitoring and Reporting Time Frame (Approx.)							
1.	Environmental Quality Monitoring with respect to Air, Water, Noise and Soil Quality in each region (Joda, Koira and Baripada/Rairangpur)									

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	<p>as per specified frequency shall be done by a third party (preferably Govt.) and/or laboratory approved/ recognized by NABET/ CPCB/ SPCB/ MoEF&CC.</p> <p>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>road for Block-A, the work is in process. (Block-A entry- 345m, Block-A exit- 355,).</p>
	<p><u>Installation of online ambient air quality monitor for PM₁₀, PM_{2.5}, SO_x and NO_x within the mine having more than 3 MTPA EC Capacity</u></p>			<p>(vii) OMC will abide by the directions of Department of Steel and Mines in this regard, if any.</p>
	<p>Installation of online ambient air quality monitor for PM₁₀, PM_{2.5}, SO_x and NO_x in the Joda and Koira Region (total 11 locations.</p>			<p>(viii) Digital processing of the entire lease area for the monitoring of land use pattern has been prepared by ORSAC, Dept. Of Science & Technology, Govt. of Odisha. The copy of the same has been submitted to the Ministry vide letter No. 16465/OMC/F&E/2021 dt. 02.11.2021. The same shall be done once in 3 years for monitoring the land use pattern and the mining activity.</p>
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>			<p>(ix) R&D studies towards utilization of low-grade iron ore will be done through research/academic institutes like IMMT, Bhubaneswar or any other institution of national repute.</p>
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>			
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</p>			

	Board. Accordingly, all project proponents shall implement suitable conservation measures to augment ground water resources in the area.		
5.	The State Govt. shall ensure construction and maintenance of dust free common roads/ appropriate rail network for transport of ore from mines to the consumer end.		
6.	<u>Construction and maintenance of dust free roads from respective mine to the main road</u>		
7.	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. 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).		
8.	Assessment of land use/ land cover changes in each of the regions, with particular focus on mining areas, afforestation activities, variation in flow path of various water bodies etc. using remote sensing data		
9.	R&D Studies for utilization of low-grade iron ore		
<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 data base 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</p>			

	<p>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>	
32.	<p>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 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 Funds 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</p>	<ul style="list-style-type: none"> • OMC will extend its full support to the concerned authority towards achieving Environmentally Sustainable Mining on long term basis through concurrent economic growth in mining sector along with improvement in quality of life of the local people. • Environmental protection as well as the development of the people will be worked in a systematic manner at the block/regional level for overall benefit of the society, region, district and state. • OMC will extend support and co-operation to the Govt. authorities to utilize District Mineral Funds for various development activities/needs of the region. • OMC will extend full co-operation and assistance to all the stake holders (mine operators, industries, transporters, State & Central Govt. 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 Mining in the region.

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.



(Dr. Suman Krishna Sit)
General Manager (Geo)
Authorised Signatory

Suman Krishna Sit
General Manager(Geo)
Power of Attorney Holder
Odisha Mining Corporation Ltd.
Bhubaneswar

F.No.8-96/96-FC
 Government of India
 Ministry of Environment & Forests
 (F.C. Division)

Paryavaran Bhawan, C.G.O. Complex,
 Lodi Road, New Delhi-110003.
 Dated: 14th January 2005

To

The Principal Secretary (Forests),
 Government of Orissa,
 Bhubaneswar.

Sub: Diversion of 42.417 ha. of already broken up forest land for renewal of Guali Iron Ore Mines in favour of M/s Shri R.P. Sao in Keonjhar Forest Division, Orissa.

Sir,

I am directed to refer to your letter No. 10F (Cons)-111/96.22495/F&E dated: 4-10-1996 on the above mentioned subject, seeking prior approval of the Central Govt. in accordance with Section-2 of Forest (Conservation) Act, 1980 and to say that the proposal has been examined by the Advisory Committee constituted by the Central Government under Section 3 of the aforesaid Act.

After careful consideration of the proposal of the State Government and on the basis of the recommendations of the above mentioned Advisory Committee, the Central Government hereby conveys its approval under Section 2 of Forest (Conservation) Act, 1980 for diversion of 42.417 ha. of already broken up forest land for renewal of Guali Iron Ore Mines in favour of M/s Shri R.P. Sao in Keonjhar Forest Division, Orissa, subject to fulfilment of following conditions:-

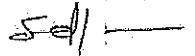
1. Legal status of forest land shall remain unchanged.
2. Penal compensatory afforestation shall be raised and maintained over degraded forest land double in extent of the diverted forest area ($2 \times 42.417 = 84.834$ ha.) by the State Forest Department.
3. Safety zone shall be regenerated and protected and plantations shall be raised and maintained over degraded forest lands elsewhere, over an area one and half times of the extent of the safety zone, by the State Forest Department, at the project cost.
4. The State Government shall deposit the above-mentioned funds including the funds collected for Net Present Value of diverted forest land, in form of Fixed Deposits in the name of concerned DFO/ Nodal Officer of the State, till such time the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) intimates the Head of Accounts for deposition of funds.
5. Demarcation of the area will be done in the ground in project cost. 4 feet high RCC pillars. The pillars shall indicate serial numbers, forward and back bearings and distance between adjacent pillars.

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6. Electric fencing raised by the User Agency around mining trenches shall be maintained by them throughout the life of mine.
7. Trees shall be felled only when it becomes necessary and under strict supervision of State Forest Department.
8. The user agency shall protect the top soil at the project cost.
9. Concurrent Reclamation plan shall be executed by the user agency from the very first year and an annual report shall be sent to the Nodal Officer and the Regional CCF, Bhubaneswar. If it is found from the Annual report that the annual programme mentioned in Concurrent Reclamation Plan is not being adhered to by the user agency, the mining activities shall remain suspended till such time the annual programme is completed for that year.
10. No labour camps shall be established on the forest land.
11. Sufficient firewood shall be provided by the User Agency to the labourers at the project cost after purchase from the State Forest Department/Forest Development Corporation.
12. Mining shall be done as per the approved mining plan.
13. The User Agency shall ensure that there is no damage to the available wildlife.
14. The forest land shall not be used for any purpose other than that specified in the proposal.
15. The lease period shall be co-terminus with the current lease granted under MMRD Act, 1957.
16. Any other condition that the State Government or the Chief Conservator of Forests (Central), Regional Office, Bhubaneswar may impose from time to time in the interest of conservation, protection and development of forests shall also be applicable.

Yours faithfully,



(ANURAG BAJPAI)

Asstt. Inspector General of Forests

Copy to:

1. The Principal Chief Conservator of Forests, Government of Orissa, Bhubaneswar.
2. The Chief Conservator of Forests (Central), Regional Office (EZ), Bhubaneswar.
3. The Nodal Officer, Forest Department, Government of Orissa, Bhubaneswar.
4. RO (Hqs), New Delhi.
5. User Agency.
6. Monitoring Cell of FC Division.
7. Guard file.


(ANURAG BAJPAI)

Asstt. Inspector General of Forests

F. No. 8-96/96-FC (pt.)
Government of India
Ministry of Environment and Forests
(F.C. Division)

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi - 110 003.

Dated: 6th September, 2011

To

The Principal Secretary (Forests),
Government of Orissa,
Bhubaneswar.

Sub: Diversion of 209.54 ha of additional forest land in addition to 42.417 ha of broken up Reserve forest land already diverted earlier in Guali Iron Ore Mines in Barbil Tahasil in Keonjhar District, Orissa for Iron ore mining by Sri Ramesh Prasad Sao during 2nd Renewal of Mining Lease.

Sir,

I am directed to refer to the State Government's letter No. 10F(Cons)6/2009-4714/F&E dated 13.03.2009, on the above mentioned subject, wherein prior approval of the Central Government was sought, in accordance with Section 2 of the Forest (Conservation) Act, 1980. After careful consideration of the proposal by the Forest Advisory Committee constituted by the Central Government under Section-3 of the said Act, in-principle approval for diversion of 95.00 ha forest land in addition to 42.417 ha of broken up Revenue Forest land already diverted earlier, out of proposed (209.54 + 42.417 ha) of forest land in Guali Iron Ore Mines in Barbil Tahasil of Keonjhar District, Orissa for iron ore mining by Sri Ramesh Prasad Sao during 2nd Renewal of Mining Lease vide this Ministry's letter of even number dated 2nd January 2010 was granted, subject to fulfillment of certain conditions. The State Government has furnished compliance report in respect of the conditions stipulated in the in-principle approval and has requested the Central Government to grant final approval.

2. In this connection, I am directed to say that on the basis of the compliance report furnished by the State Government of Orissa vide their letter No. 10F(Cons)-488/2011-15216/F & E dated 18.08.2011, approval of the Central Government is hereby granted under Section-2 of the Forest (Conservation) Act, 1980 for diversion of 95.00 ha forest land in addition to 42.417 ha of broken up Revenue Forest land already diverted earlier, out of proposed (209.54 + 42.417 ha) of forest land in Guali Iron Ore Mines in Barbil Tahasil of Keonjhar District, Orissa for iron ore mining by Sri Ramesh Prasad Sao during 2nd Renewal of Mining Lease, subject to the fulfillment of the following conditions:

- (i) Legal status of forest land shall remain unchanged.
- (ii) Compensatory Afforestation shall be raised and maintained over equivalent area of non-forest land identified and provided by the State Government from the funds received from the user agency.
- (iii) The non-forest land identified to compensatory afforestation shall be notified as Reserved Forest/Protected Forest under relevant section(s) of Indian Forest Act, 1927 or the concerted State Forest Act. Nodal Officer, Forest (Conservation) Act, 1980, State Government of shall send compliance in this regard within six months.

06/09/2011

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- (iv) State Government shall realize from the user agency, Additional amount of NPV, if any, becoming due after finalization of the rates of NPV.
- (v) Wherever possible and technically feasible, the User Agency shall undertake afforestation measures in the blanks within the lease area as well as within 100 Meter radius from the lease area inside RF if density is lesser than 0.4 and maintain it till the life of the project, in consultation with the State Forest Department.
- (vi) The period of diversion under this approval shall be twenty (20) years subject to possession of valid lease by the User Agency under the MMDR Act, 1957 so that it shall be co-terminus.
- (vii) Any tree felling shall be done only when it is absolutely necessary and unavoidable.
- (viii) The User Agency will prepare a plan for protection and maintenance of remaining forest land out of additional 209.54 ha in consultation with State Forest Department to be implemented at the User Agency's cost. In this regard, a map shall be submitted showing the area diverted in the mining lease area.
- (ix) No damage to the flora and fauna of the area shall be caused.
- (x) The user agency shall start mining as per approved mining plan. The mining will continue in earlier broken area of 42.417 ha of forest land, however, due care should be ta The Compliance to the Scheduled Tribe and other traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 shall be done as per Ministry's circular dated 30.07.2009.
- (xi) The User Agency shall start mining as per approved mining plan. The mining will continue in earlier broken area of 42.417 ha of forest land, however, due care should be taken for reclaiming earlier mined areas. Reclamation Plan approved by IBM, shall be strictly implemented which shall be monitored regularly by the State Forest Department/Regional Office, Bhubaneswar. If it is found from the Annual Report that the annual programme mentioned in the Concurrent Reclamation Plan is not being adhered to by the User Agency, the mining activities shall remain suspended till such time, the annual programme is completed for that year.
- (xii) It shall be ensured that no labour camps are set up inside the forest area.
- (xiii) The mining lease area shall be demarcated on ground at the project cost, using four feet high RCC pillars, with each pillar inscribed with the serial number, forward and backward bearings and distance between two adjacent pillars.
- (xiv) The User Agency shall take up the de-silting of the village tanks within five km area from the mine lease boundary so as to mitigate the impact of siltation of such tanks whenever required.
- (xv) The forest land shall not be used for any purpose other than that specified in the proposal.
- (xvi) All the conditions recommended by the State Government like site specific wildlife management plan and comprehensive wild life management plan and any other conditions imposed shall be implemented at the User Agency's cost.
- (xvii) The user agency shall submit an annual self-monitoring report containing status of compliance to the conditions stipulated in the approval to the State Government and concerned Regional Office of the Ministry.

06/09/2011

(xviii) Any other condition that the CCF (Central), Regional Office, Bhubaneswar / State Government may impose from time to time for protection and improvement of flora and fauna in the forest area, shall also be applicable.

Yours faithfully,

[Signature]
06/09/2019

(H.C. Chaudhary)
Assistant Inspector General of Forests

*Recd
Rahul
06/09*

Copy to:

1. The PCCF, Government of Orissa, Bhubaneswar.
2. The Nodal Officer, O/o PCCF, Bhubaneswar.
3. The Chief Conservator of Forests (Central), Regional Office, Bhubaneswar.
4. The User Agency.
5. The Monitoring Cell, FC Division, MoEF, New Delhi.
6. Guard File.

[Signature]
06/09/2019

(H.C. Chaudhary)
Assistant Inspector General of Forests


Statement showing the production of Iron Ore for the period from
July 1973 to FY; 2021-22 in respect of **Guali Iron Ore Mines**

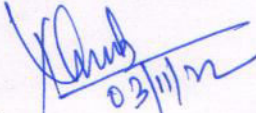
Sl. No.	Name of the Lessee	Year	Quantity (in metric tonne)
1	2	3	4
1.	R. P. Sao	July 1973 to December 1973	18847
2.		1974	16923
3.		1975	42221
4.		1976	57086
5.		1977	80634
6.		1978	45433
7.		1979	21309
8.		1980	14786
9.		1981	53850
10.		1982	47410
11.		1983	18100
12.		1984	23370
13.		1985	28000
14.		1986	25000
15.		1987	80833
16.		1988	12212
17.		1989	21755
18.		1990	22414
19.		1991	19810
20.		1992	9606
21.		1993	11661
22.		1994	8652.2
23.		1995	5555
24.		1996	24733.02
25.		1997 (up to Apr'97)	3946.6
26.		1998	0
27.		1999	0
28.		1999-2000	0
29.		2000-01	0
30.		2001-02	0
31.		2002-03	570
32.		2003-04	105000
33.		2004-05	130328
34.		2005-06	513544
35.		2006-07	2377792
36.		2007-08	5000000
37.		2008-09	4679850
38.		2009-10	5134200
39.		2010-11	4583106
40.		2011-12	2400084
41.		2012-13	1502959
42.		2013-14	117548

43.		2014-15	0
44.		2015-16	0
45.		2016-17	0
46.		2017-18	0
47.		2018-19	5531386
48.		2019-20	5699997
49.	M/s OMC Ltd.	2020-21	362400
50.		2021-22	5700000

Memo No. 4790 / Mines, dt. 03.11 / 2022

Copy to the Mines Managr, Gulai Iron Ore Mines, OMC Ltd. for information and necessary action.


Deputy Director of Mines
Joda, Dist.- Keonjhar


Deputy Director of Mines
Joda, Dist.- Keonjhar

OFFICE OF THE DEPUTY DIRECTOR MINES JODA, DIST.: KEONJHAR

No. 4791/Mines, dt. 03.11./2022

From

The Deputy Director of Mines,
Joda, Dist.: Keonjhar

To

The Mines Manager
Guali Iron Ore Mines, OMC Ltd.

Sub:

Recovery of compensation amount under Section 21(5) of M&M (D&R) Act, 1957 – Matter Regarding.

Ref:

Letter No.1604/OMC/GUALI/2022, dt.01.11.2022 of the Mines Manager, Guali Iron Ore Mines.

Sir,

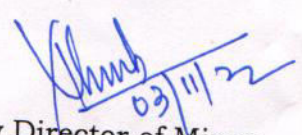
With reference to the letter on the subject cited above, I am to say, that in pursuance to the Judgment dated 2.8.2017 of the Hon'ble Supreme Court of India in the matter of W.P.(C)No.114 of 2014 Common Cause –Vs- Union of India and Others, the ex-lessee Sri R.P. Sao in respect of Guali Iron Ore Mines has been demanded compensation u/s 21(5) of MMDR Act, 1957 as detailed below for production of mineral without EC/MP/CTO and the ex-lessee has paid the demanded compensation amount towards EC violation amounting to Rs.1126,85,17,855/-.

1.	EC	Demand Notice No.4098/Mines, Dt.02.09.2017	Rs.1126,85,17,855/-
2.	MP/ CTO	Demand Notice No.5254/Mines, Dt.23.10.2017	Rs.29,39,18,019/-

The compensation amount of Rs.29,39,18,019/- as demanded towards violation of MP/ CTO vide this office letter No.5254/Mines, Dt.23.10.2017 has not yet been deposited by the ex-lessee, But the ex-lessee preferred to file Revision Application before the Mines Tribunal, Govt. of India, Ministry of Mines, New Delhi vide Revision Application No.22/84/2017/RC-1 and the R.A. vide order dated 21.12.2018 have remanded back to the State Government to hear the matter afresh and pass a detailed and reasoned order. The Government have disposed off the case vide Proceedings No.8935/SM, dt.17.09.2022 and ordered to realise the demanded amount of compensation. On the basis of above the order, a demand notice was issued from this office vide Letter No.4169/Mines, dt.26.09.2022 for the amount of Rs.29,39,18,019/-, which is not yet paid by the ex-lessee.

This is being issued for necessary compliance to MoEF & CC to obtain the EC in favour of Guali Iron Ore Mines of OMC Limited over 358.258 ha.

Yours faithfully,


03/11/22
Deputy Director of Mines,
Joda, Dist. – Keonjhar