

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 01ST DECEMBER 2023**

The SEAC met on 01st December 2023 at 10:30 AM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under the Chairmanship of Sri Shashi Paul. The following members were present in the meeting.

1. Sri Shashi Paul	-	Chairman
2. Dr. K. Murugesan	-	Member Secretary
3. Dr. Rabi Narayan Patra	-	Member(through VC)
4. Dr. Chittaranjan Panda	-	Member
5. Prof. (Dr.) H.B. Sahu	-	Member (through VC)
6. Prof. (Dr.) Abanti Sahoo	-	Member (through VC)
7. Er. Fakir Mohan Panigrahi	-	Member (through VC)
8. Prof. (Dr.) B.K. Satpathy	-	Member (through VC)
9. Er. Kumuda Ranjan Acharya	-	Member
10. Shri Jayant Kumar Das	-	Member(through VC)
11. Dr. Ashok Kumar Sahu	-	Member
12. Dr. K. C. S Panigrahi	-	Member (through VC)

Draft proceedings of the meeting was finalized by the members through e-mail and final proceedings of the meeting was confirmed by the members through e-mail. The agenda-wise proceedings and recommendations of the committee are detailed below.

ITEM NO. 01

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S SHRI RADHA KRISHNA ISPAT PVT LTD FOR EXPANSION OF PRODUCTION CAPACITY OF MS BILLETS/INGOTS FROM 24000 TPA TO 52000 TPA BY REPLACEMENT OF EXISTING INDUCTION FURNACE (5 TON/HEAT + 3 TON/HEAT) WITH 2 X 8 TON/HEAT INDUCTION FURNACES OVER AN AREA 3.04 ACRES AT PLOT NO. 19/1019, GOIBHANGA, P.O.-KALUNGA, DISTRICT- SUNDARGARH OF SRI ARIHANT JAIN- TOR

1. The proposal was considered by the committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. This proposal is for Terms of Reference of M/s Shri Radha Krishna Ispat Pvt Ltd., for Expansion of Production Capacity of MS Billets/Ingots from 24000 TPA to 52000 TPA by replacement of existing induction Furnace (5 Ton/Heat + 3 Ton/Heat) with 2 X 8 Ton/Heat Induction Furnace over an area 3.04 acres at Plot No. 19/1019, Goibhanga, P.O.-Kalunga, District- Sundargarh of Sri Arihant Jain.
3. **Category:** This is an existing project and is categorized under Category 'B' under Schedule item 3(a)- Metallurgical Industries (ferrous and non-ferrous), of Gazette Notification dated 14th September, 2006 and its subsequent amendments.

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J Nayak
Environmental Scientist, SEAC

4. M/s Shri Radha Krishna Private Limited is an existing industrial unit producing Pencil Ingots through Induction Furnaces of capacity 5 Ton/Heat & 3 Ton/Heat.
5. **Location and connectivity:** The proposed project is of area 3.04 Acres (1.23 Ha) located at Plot No. 19/1019, Goibhanga P.O.-Kalunga, District- Sundargarh, Odisha. The project is bounded by Latitude 22°19'45.84"N and Longitude 84°44'39.18"E. The nearest Railway Station is Kalunga Railway Station which is located at about 1.2 km in SW direction and Rourkela Airport is at a distance of approx.7.0 km in ENE direction from the project site. Nearest habitation is Village – Bijabahal - 0.3 km, NW. Nearest National Highway is NH-143, 4.0 Km in East Direction and nearest State Highway is SH-10 – 1.0 Km, North. Nearest Water Bodies are Longmohan Nadi is at 0.1km W and Sankh River is at 2.3km N. Nearest Protected forest is Kacharu PF at 12.3km and nearest Reserve forest is Sagor RF at 4.4km from the project site.
6. The renewal of last consent was granted by State Pollution Control Board, Odisha vide No. 2502/RO-CTO-0403 dated 10.02.2021. Consent Order no 131/SPCB/RKL (APC & WPC) which is valid up to 31.03.2026.

7. Details of Existing and Proposed Plant

S. No.	Particulars	Existing	Proposed expansion	Total
i)	Induction Furnace	5 Ton +3 Ton/heat	2X8 Ton/heat (By replacing existing furnaces)	2X8 Ton/heat
ii)	Production capacity (MS Ingots/ Billets Production)	24,000 TPA	28000 TPA	52000 TPA
iii)	CCM	---	2 Strand, 4/7 m radius	2 Strand, 4/7 m radius
iv)	Fixed capital investment	11.15 Cr.	4.85 Cr.	16.00 Cr.
v)	Electrical power requirement	2.9 MW	2.6 MW	5.5 MW
vi)	Land area	3.04 Acres (1.23 Hect.)	---	3.04 Acres (1.23 Hect.)
vii)	Manpower requirement	80	20	100

8. Raw material requirement:

S. No.	Raw Material	Existing Capacity (TPA)	Proposed Capacity (TPA)	Total Capacity (TPA)	Source	Mode of transport
1	Sponge Iron	19800	23100	42900	Open Market	Road
2	Pig Iron	2640	3080	5720	Open Market	Road
3	MS Scrap	2640	4775	7415	Open Market	Road
4	Alloys	1320	1540	2860	Open Market	Road

9. **Water Requirement:** The existing daily fresh water requirement is 9 m³/day and is being sourced from existing bore well and NOC has been obtained from CGWA vide 21-4/5233/OR/IND/2023. Additional 15KLD fresh water will be required for expansion proposal for which CGWA Application is under process. After expansion, total freshwater requirement will be 24 KLD. After expansion, total water demand is 38.5 KLD, out of which fresh water will be 24 KLD which will be sourced from Ground Water. 14.5 KLD water will be recycled.

S. No.	Particulars	Fresh (KLD)	Recycled (KLD)	Total Water Demand (KLD)
i)	Industrial	14	7	21
ii)	Domestic	10	-	10
iii)	Plantation	7.5*	STP treated water of 7.5 KLD will be used for greenbelt development	7.5
	Total	24	14.5	38.5

10. **Wastewater generation:**The following will be the waste water generation from the proposed project and method of disposal.

S. No	Particulars	Wastewater generation (KLD)	Management
i)	Industrial	7.0	IF: -Blow-down water from cooling systems will be utilized for the plant through closed circuit cooling system.
ii)	Domestic	8.0	Domestic sewage is being treated in STP and treated water is being used for greenbelt development.

11. **Solid waste generation and management:** The following will be the Solid waste generation from the proposed project and method of disposal.

S. No	Particulars	Existing Quantity (TPA)	Proposed Quantity (TPA)	Total Quantity after Expansion (TPA)	Management
i)	Municipal Solid Waste (Kg/day)@0.2 kg/person	3.6	1.8	5.4	It is being send to Municipal corporation
ii)	Slag	2640	3080	5720	Crushed in own Slag crushed unit after that metallic part used in house Billet Manufacturing and non metallic part reused for landfilling

S. No	Particulars	Existing Quantity (TPA)	Proposed Quantity (TPA)	Total Quantity after Expansion (TPA)	Management
iii)	Mill Scale	14.2	16.8	31	Dried and used in IF
iv)	Refractories	240	300	540	Sold to Building contractor

12. **Manpower Requirement:** The proposed project will generate direct employment 100 No's which will be employed officials, staff, skilled, semi -skilled labour & 100 Nos. indirectly employed in contract works & transport.

13. **Power Requirement:** Total power requirement for plants is 5.5 MW. Source from State Electricity Board. A DG Set capacity of 250 KVA also provided standby.

14. **Greenbelt development plan:** Approx. 0.406 Ha. of total land availability is reserved for greenbelt development plan. About 1015 Nos. (0.406 ha. x 2500 plant/ha.) Plants will be maintained. Nos. of trees already planted = 115 Nos. Nos. of Plants yet to be planted = 1015-115 = 900 Nos. Greenbelt of 33% of the area will be developed in the plant premises as per CPCB guidelines.

15. **Total Project cost:** The estimated total project cost of the proposed project is 16.00 Crores. EMP Cost incurs a capital cost of 100 lakhs and recurring cost of 29 lakhs.

S. No	Particulars	Amount (In lakhs)	
		Capital Cost	Recurring Cost/ Annum
i)	Air Pollution /Noise pollution Control System	80	15.00
ii)	Green Belt Development	10	2.00
iii)	Environment Monitoring and Management	-	8.00
iv)	Water Pollution Control System	05	2.00
v)	Occupational Health& Safety	05	2.00
	Total	100	29.00

16. **Environment Consultant:** The Environment consultant **M/s Parivesh Environmental Engineering Services, Lucknow** along with the proponent made a presentation on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Parivesh Environmental Engineering Services, Lucknow**, the SEAC prescribed the ToR as per **Annexure – A** for conducting detailed EIA study with following specific ToRs:

- i) The Project proponent shall not increase the connecting load from the state grid 20% more than the existing load.
- ii) Note on existing green area and proposed green area.
- iii) Furnish details on types of alloys, its composition obtained from suppliers, types of billets/ingots manufactures and quantity of billet production etc.

- iv) The Project proponent shall provide supporting documents like Memorandum of Understanding (MoU) with Raw material suppliers in EIA report.
- v) Detailed note on slag processing, composition of slag, facilities provided for processing along with flowchart for the same.
- vi) The Project Proponent shall clarify whether the slag will be used in land filling purpose; if so then area earmarked, how much period it can be stored and method of storage for it. If the Project Proponent is planning for slag disposal, then provide details on slag disposal process and its management.
- vii) The project proponent shall brief the Air Pollution Control measures taken and fume collection system in new induction furnaces.
- viii) The project proponent shall keep provision of solar power generation.

ITEM NO. 02

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. FEDDERS ELECTRIC & ENGINEERING LIMITED FOR INSTALLATION OF 1.5MTPA IRON ORE BENEFICIATION PLANT OVER AN AREA 24.635 ACRES (9.969 HA) LOCATED AT VILLAGE- SANINDIPUR, KOIDA, DIST.- SUNDARGARH OF SRI DINESH SHARMA - TOR

1. The proposal was considered by the committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. This proposal is for Terms of Reference of M/s. Fedders Electric & Engineering Limited for installation of 1.5MTPA Iron Ore Beneficiation Plant over an area 24.635 acres (9.969 Ha.) located at village- Sanindipur, Koida, Dist.- Sundargarh of Sri Dinesh Sharma.
3. **Category:** The proposed project is categorized under Category 'B' under Schedule item 2(b) - Mineral beneficiation as per EIA Notification dated 14th September, 2006 and its subsequent amendments.
4. **Location and connectivity:** The proposed project is located in village Sanindipur, under Koida Tehsil of Sundargarh district and is featured in Toposheet No. F45N1, F45N5, F45N8 bounded by Latitude: 21°55'16.05"N to 21°55'4.67"N and Longitude: 85°18'6.61"E to 85°18'4.12"E. Nearest National Highway is NH-520, within 6 Km(aerial) and nearest Railway station is Barsuan Railway station – 30 km (W),nearest Airport is Veer Surendra Sai Airport, Jharsuguda at 180 K.M.Nearest Water Bodies are Suna Nadi is at 0.7km W and Karo River is at 7.9km N. Nearest Reserve forest is Mendhamaruni RF at 1.2km. Nearest habitation is Sanindipur village - 0.4km South of the project site..
5. **Raw material required:**

Sr. No.	Proposed Facility	Raw material	Quantity	Source	Distance /Mode of Transportation
i)	Beneficiation Plant (1.5MTPA)	IronOre Fines	1.5MTPA	Nearby Iron Ore Mines	By Road

6. **Water Requirement:** The source of water for the proposed green-field project will be from Suna River flowing at a distance of 0.7 km. The water requirement for the proposed green-field project is estimated as 1200 m³/day (50 m³/ hr). Water drawl permission will be taken for 1200 m³/day from competent authority.
7. **Wastewater generation and management:** The water required for domestic purpose in the project is 4.8KLD, out of which about 4KLD will be generated as domestic waste water. This 4 KLD water will be treated in the 5KLD STP & will be reused in greenbelt development & dust suppression purpose.
8. **Power Requirement:** 3.5 MW of power will be required for the proposed green-field project which will be sourced from Nearest Grid. Permission will be taken from competent authority. There will be installation of 1 no. DG set of capacity 500 KVA for power backup during power failure.
9. **Solid waste generation:** Tailings of quantity about 0.45MTPA will be generated as solid waste. These will be collected in Tailing storage area of 2.021 Acre & disposed to low lying area available in the locality.
10. **Greenbelt development:** The total project area is 24.635 Acres (9.969 Ha.) out of which green belt will be developed on about 8.576 Acre (3.47 Ha) area. The proposed greenbelt is 33.027% of total project area. Number of species to be planted = $3.47/2500 = 8675$. Local species (viz. Neem, Saal, Mohula, Peepal, Mango, etc.) will be preferred for plantation in consultation with forest department.
11. **Manpower Requirement:** There will be requirement of total 73 numbers of manpower. The manpower will be hired from local people.

ROLE/DESIGNATIONS	NUMBERS
Manager	01
Staff / Supervisor	12
Skilled Labours	36
Unskilled Labours	24
TOTAL =	73

12. **Project cost:** The estimated cost of the project is 98 Crores and EMP cost bearing Capital cost- Rs. 672 Lakhs(6.72Cr.) and Recurring cost- Rs.134.4 Lakhs (1.34 Cr.)

Table: EMP Cost

S. No	Unit	Detail	Capital Cost (Rs. In Lakhs)	Total Recurring Cost(Rs. in Lakhs)
i)	Air Management	Air pollution control Measures	100	20
ii)	Wastewater Management	Surface runoff treatment plant, STP and maintenance	150	40
iii)	Noise Management	Maintenance of instruments	80	20

S. No	Unit	Detail	Capital Cost (Rs. In Lakhs)	Total Recurring Cost(Rs. in Lakhs)
iv)	Solid & Hazardous Waste Management	Proper collection, Safe Handling, Storage within premises and disposal of waste to recyclers, etc as applicable	87	20
v)	Fire & Safety	Fire Extinguishers, Fire hydrant system	90	10
vi)	Env. Monitoring	CAAMS, Weather Station & Third Party	80	10
vii)	Green Belt Development	Plantation	40	9.4
viii)	Occupational Health	Medical Health checkup, PPE, first aid	45	5
Total			672	134.4

13. **Environment Consultant:** The Environment consultant **M/s Visiontek Consultancy Services Private Limited, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Visiontek Consultancy Services Private Limited, Bhubaneswar**, the SEAC prescribed the ToR as per **Annexure – B** for conducting detailed EIA study with following specific ToRs:

- i) The Project proponent shall revise the layout for location of raw material storage yard as the materials may get airborne and housing colony of M/s Rungta Mines is located at 100 metres away from the project site. Provide the justification for the necessary changes.
- ii) Chemical analysis report of Iron content present in raw material samples.
- iii) Note on Tailing management (storage plan, quantity to be sold) its process and disposal.
- iv) The PP proposes to draw 1200 KLD from Suna River. As the said river is small, it might not be feasible to draw the water required for the project. Hence, PP shall apply for the permission from the concerned department (CGWA/ Water Resource Department) and check if it's feasible to avail the required water for the project.
- v) The Project proponent shall provide supporting documents like Memorandum of Understanding (MoU) with Raw material suppliers.
- vi) Traffic Study Report as traffic load to be increased due to the establishment of proposed project.
- vii) Material balance with the process flow sheet for Iron ore processing should be supported by tests carried out by reputed Lab/Institute.
- viii) Details of Chemical & Mineralogical analysis of the ROM feed, Products & Tailings should be submitted.
- ix) Submit the detailed layout of the parking plaza.
- x) Chemical composition of the tailings along with percentage of recovery.

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Jayak
Environmental Scientist, SEAC

xi) The groundwater quality should be assessed for leachate control from the raw material stockyard.

xii) Details of tailing storage & handling processes to be followed and its management.

xiii) The project proponent shall keep provision of solar power generation.

ITEM NO. 03

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S HIGH GRADE MINERAL PRIVATE LIMITED (HGMP) FOR IRON ORE BENEFICIATION PLANT OF CAPACITY 9,60,000 TPA OVER AN AREA OF 6.97 ACRE LOCATED VILLAGE DUBUNA, BARBIL, DIST- KEONJHAR OF SRI GANESH KUMAR SHARMA – TOR

1. The proposal was considered by the committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. This proposal is for Terms of Reference of M/s. High Grade Mineral Private Limited (HGMP) for Iron Ore Beneficiation plant of capacity 9,60,000 TPA over an area of 6.97 Acre located Village Dubuna, Barbil, Dist- Keonjhar of Sri Ganesh Kumar Sharma.
3. **Category:** This project falls under Category "B" under 2(b): Mineral Beneficiation as per EIA Notification dated 14th Sept, 2006 and its amendments.
4. **Location and connectivity:** M/s High Grade Mineral Pvt. Ltd. has planned to set up an Iron Ore Beneficiation Plant of capacity 960000 TPA at village-Dubuna, Tehsil- Barbil, Dist- Keonjhar, Odisha. The geographical co-ordinates of the proposed site is Latitude: 21°51'02.9" N Longitude: 85°24'17.3" E. The project falls under Survey of India bearing Topo sheet no. 73G/5. The Plant site is connected to Joda-Bamebari-Palasponga road by a haul road and this road connected to NH-520 at a distance of 25 km. Nearest Railway siding is Nayagarh Railway siding at 5 km in East direction, nearest Airport is Bijupatnaik International Airport (264 km), District Headquarter: Keonjhar – 39km, nearest port is Paradeep port about 280 km from the project site. The nearest water bodies are Baitarani River – 4 km (E), Handibhanga Waterfall – 4 km (W), Kaijoda Waterfall –9 km (SW), Jagadala Reservoir – 8 km (SE), Balipada Nala – 4.5 km (E), SunaNala – 8 km (W), Jalpa Nadi- 2 km (E).
5. **Kisam of land-** 6.97 Acre belongs to High Grade Mineral Private Limited, however during the verification of records, it was found that Hal ROR no. 82/95, 82/96 & 5 belongs to Jungle Kissam, which is under subjudice at the court of Additional Commissioner (Consolidation & settlement), Keonjhar vide letter No. 495 /Court dated 17.11.2023.
6. **Material Balance:**

Material	Fe (%)	Yield (%)	Annual Qty(MT)
Raw Ore	54.5	100	9,60,000
Jig Beneficiated Coarse Ore (+) 4 mm to (-) 18mm	62	45.7	4,38,720
Jig Discard (+) 4 mm to (-) 18mm	40	11.8	1,13,280

Concentrated of fines beneficiation circuit (-) 75 microns	62	13.72	1,31,712
Tailings from fines circuit (-) 75 microns	45	28.78	2,76,288

7. **Water requirement:** The total water requirement for the proposed project will be 31.5 m³/hr and make up water requirement for process will be 504 KLD which will be drawn from ground water source.
8. **Wastewater details:** Water will be kept in closed circuit and recycled. The water utilized in the process will be recycled resulting in zero discharge of waste water. The tailing pond of adequate capacity will be constructed with suitable impervious lining to prevent percolation into ground water.
9. **Power Requirement details:** The total power requirement for plant operation will be about 3.5 MW. The power supply will be sourced from TPNODL. There is provision of DG set of capacity 250 KVA for power back up.
10. **Solid waste generation:** The major solid waste is the tailings & discards generated from the beneficiation process. The quantity of tailings to be 2,76,288 TPA and discards of quantity 1,13,280 TPA totalling to 3,89,568 TPA.
11. **Mitigation of solid waste produced:** From the quality of the iron ore available in the region and based on the recovery pattern of similar plants working in the area, it is expected to recover 70-75% of the feed material, as concentrate. The balance 25-30% will be disposed off in the form of tailings with filtration. It is proposed to utilize these tailings for brick manufacture, at a later stage of the project. Also, it is proposed to sell these to nearby cement plants, in the region. However, a space provision has been made in the plant layout to store the tailings in the designate tailing ponds, within the plant area. In dewatering, the water recovered is around 72%.
12. **Greenbelt Development:** A greenbelt development plan will be prepared and implemented along with the project. Total green belt area shall be 0.94 Ha. The green belt will be developed @2500 trees per hectare. Greenbelt/plantation program will be undertaken in around the project.
13. **Total Employment:** The project generates employment opportunities for 60 personnel during the construction phase. During its operation phase 48 personnel will be engaged directly and 100 personnel will have indirect employment.
14. **Project Cost:** The project cost of the proposed project is 46 Crores.
15. **Environment Consultant:** The Environment consultant **M/s. Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s. Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar**, the SEAC prescribed the ToR as per Annexure – C for conducting detailed EIA study with following specific ToRs.

- i) Permission from CGWA and Water Resource Department for usage of surface water/ground water.
- ii) Submit the Wildlife Conservation plan with distance from the nearby Reserve Forest.
- iii) Submit material balance with by-products generated from the process in a flow-chart.

- iv) Submit chemical & mineralogical analysis of the raw mineral ore, fine ore & products from a NABL accredited lab.
- v) Submit in tabular form for raw material procurement. Submit supporting documents like Memorandum of Agreement (MoU) with the Raw material suppliers atleast 4 sources, distance of these suppliers from the proposed project and transportation route to be followed to reach the plant.
- vi) Submit the detailed layout of the parking plaza.
- vii) The proponent shall provide facility for blending of raw material and raw material storage.
- viii) Chemical composition of the tailings along with percentage of recovery.
- ix) The groundwater quality should be assessed for leachate control from the raw material stockyard.
- x) Details of tailing process to be followed and its management.
- xi) Submit documents regarding land settlement and conversion of Kism of land to appropriate category for Industrial use.
- xii) Submit a detailed land use break-up.
- xiii) Complete usage of tailings should be provided in EIA.
- xiv) Material balance with the process flow sheet for Iron ore processing should be supported by tests carried out by reputed Lab/Institute.
- xv) Details of Chemical & Mineralogical analysis of the ROM feed, Products & Tailings should be submitted.
- xvi) The project proponent shall keep provision of solar power generation.

ITEM NO. 04

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. RENEWABLE ENVIROGIC PRIVATE LIMITED FOR COMMON BIOMEDICAL WASTE TREATMENT FACILITY (CBWTF) OVER AN AREA 1.520 ACRES LOCATED AT: IDCO PLOT NO. 8, IN INDUSTRIAL ESTATE CHOUDWAR, DIST- CUTTACK OF SRI DEBASIS TRIPATHY - TOR

1. The proposal was considered by the committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. This proposal is for Terms of Reference of M/s. Renewable Envirogic Private Limited for Common Biomedical Waste Treatment Facility (CBWTF) over an area 1.520 acres located At: IDCO Plot No. 8, in Industrial Estate Choudwar, Dist- Cuttack of Sri Debasis Tripathy.
3. **Category:** This project falls under Category "B" of Project activity 7 (da)- Development of Common Bio Medical Waste Treatment Facility projects as per EIA Notification dated 14th Sept, 2006 as its amendments.
4. **Location and connectivity:** The proposed project is located at Plot No. 08, Chawduar, Dist- Cuttack, State-Odisha. The geographical co-ordinates of project site are 20.541306°N and

85.870400°E. It falls under Topo sheet no.: F44T14 & F44T15. The nearest habitation is Village-Banipadai-0.50 KM-NE, Village-Gopalpur-1.5km-SE, Village-Sasanga-2.58Km-NW. The nearest highway is NH- 55 is about 2km in south direction. The nearest Railway Station is Charbatia Railway station is about 5.14 km in NE direction. The nearest Airport is BijuPatnaik Airport, Bhubaneswar is about 32 km in SE direction. The nearest water bodies are Mahanadi River - 3.77 km (S), Chattisha lake-(>200 m) (SW), SingliJhor (1.16 Km (SW). The nearest reserve forests are Charbatia RF- 3.40 km (NE,Baula RF-4.85 km (SW),Sunimuhan RF-6.75 km (SW).

5. There are no National Park/Wildlife Sanctuary/ Eco-sensitive zone located within 10 km radius of the Project Site.
6. **Baseline study conducted:** Baseline study is being conducted from Oct-2023 to Dec 2023 Locations within 10 Km study area according to the CPCB guidelines in Core zone and Buffer zone area.
7. **Water requirement:** Total Water requirement for the proposed CBWTF project is 15 KLD and daily fresh water requirement is 7.5 KLD for Domestic and Processing including Vehicle washing and Plantation purposes. The water requirement will be met through bore wells.

Sr. No.	Details	Consumption (KLD)
i)	Process requirement (Incineration, Cleaning of storage area, Autoclave, Shredder)	7.5
ii)	Domestic Requirement	2.0
iii)	Plantation and Greenbelt, Vehicle Washing & Floor washing	5
	Total	14.5

8. **Wastewater details:** Waste water generated from the treatment of biomedical waste during incineration, autoclaving, washing of floors, vehicle wash platform, etc. will be treated in the Effluent Treatment Plant (capacity 10 KLD). The treated water would be recycled in the plant to reduce the amount of water used.
9. **Power requirement:** Total power requirement for the proposed project would be 100 KW at 11 KV lines which will be sourced from State Electricity Board. Additionally, 1 no. of DG set of 125.0 KVA is proposed for the project.
10. **Rainwater harvesting details:** A rainwater harvesting system will be also be set up at the plant to ensure better water management.
11. **Solid waste generation:**

Type of Waste Generated	Quantity
Ash	100 - 150 kg/day
Other Residues	10 - 20 kg/day

12. **Mitigation of solid waste produced:** ash from incinerator and other residue materials generated from the process are collected in bags, temporarily stored in storage shed and finally disposed in secured landfill.

13. **Greenbelt development:** Green belt will be developed over 33 % of the total land will be the greenbelt area i.e. 0.503 acres.
14. **Total Employment:** During the operational phase 30 persons (Direct + Indirect) & during construction phase local people will be hired.
15. **Project cost:** The estimated project cost is ₹400 Lakh i.e. ₹ 4 Crore.
16. **Environment Consultant:** The Environment consultant **M/s.Visiontek Consultancy Services Pvt. Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.

Considering the information furnished and the presentation made by the consultant **M/s Visiontek Consultancy Services Pvt. Ltd, Bhubaneswar** along with the project proponent, the SEAC decided to take the decision on the proposal after receipt of the following from the proponent:

A. The proponent may be asked to submit the following for further processing of EC application:

- i) The proposed site is located within 75 K.M. from another existing CBWTF. As per CPCB guidelines, this proposed CBWTF does not meet the siting criteria. The PP has to clarify as to why this proposal shall not be rejected due to non-confirming to the siting criteria. A detailed write up in this regard shall be submitted.
- ii) Land documents and kism of land.

B. If decided to issue ToRs, following specific ToRs may be prescribed while issue of Terms of References.

- i) Permission from Aviation Research Centre, Charbatia, Cuttack for stack height and all other statutory clearances shall be obtained.
- ii) Detailed write up on the handling of bio medical waste (segregation, process followed and disposal of waste).
- iii) Submit a detailed layout of the proposed project showing all process, materials storage, and handling units.
- iv) Precautionary measures to be undertaken to prevent contamination of soil and water from the raw material storage area due to leaching.
- v) Brief write up on surface run off management with drainage map.
- vi) Submit the water balance break-up and where the cooling water is to be used.
- vii) Submit the coverage area details as it is Notified Industrial Area.
- viii) SOP for Biomedical waste management for workers involved in segregation and waste handling.
- ix) Regarding disposal of the incinerator ash submit supporting documents like MoU with private agencies.
- x) The ETP should have provision to take care of wastewater being contaminated with biomedical wastes.


MEMBER SECRETARY, SEAC

TERMS OF REFERENCE (ToR) FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT FOR M/S SHRI RADHA KRISHNA ISPAT PVT LTD FOR EXPANSION OF PRODUCTION CAPACITY OF MS BILLETS/INGOTS FROM 24000 TPA TO 52000 TPA BY REPLACEMENT OF EXISTING INDUCTION FURNACE (5 TON/HEAT + 3 TON/HEAT) WITH 2 X 8 TON/HEAT INDUCTION FURNACES OVER AN AREA 3.04 ACRES AT PLOT NO. 19/1019, GOIBHANGA, P.O.-KALUNGA, DISTRICT- SUNDARGARH OF SRI ARIHANT JAIN- TOR.

STANDARD TERMS OF REFERENCE (TOR):

1. Executive Summary.

2. Introduction

- i. Details of the EIA Consultant including NABET accreditation.
- ii. Information about the project proponent.
- iii. Importance and benefits of the project.

3. Project Description

- i. Cost of project and time of completion.
- ii. Products with capacities for the proposed project.
- iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other chemicals and materials required with quantities and storage capacities
- vi. Details of Emission, effluents, hazardous waste generation and their management.
- vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided.
- ix. Hazard identification and details of proposed safety systems.
- x. Expansion/modernization proposals:
 - a) Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including

J. Nayak
Environmental Scientist, SEAC

Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing existing operation of the project from SPCB shall be attached with the EIA-EMP report.

- b) In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (Including all eco-sensitive areas and environmentally sensitive places).
- iii. Details w.r.t. option analysis for selection of site.
- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Land use break-up of total land of the project site (identified and acquired), government/ private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area.
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects).
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy.

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

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable).
- ii. Land use map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha).
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon.
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6. Environmental Status

- i. Determination of atmospheric inversion level at the project site and site-specific micro- meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking

J. N. J. J.
Environmental Scientist, SEAC

arrangement etc.

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

7. Impact and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling - in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor- cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards. vi. Measures for fugitive emission control
- vi. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- vii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- viii. Action plan for the green belt development plan in 33 % area i.e. land with not less than
- ix. 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analysed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
- iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
- iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report.

- 10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers

J Nayak
Environmental Scientist, SEAC

including truck drivers during operation phase.

11. Enterprise Social Commitment (ESC)

i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

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

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

14. **The prescribed TOR would be valid for a period of four years for submission of the EIA/EMP report.**

ANNEXURE- B

TERMS OF REFERENCE (ToR) FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT OF M/S. FEDDERS ELECTRIC & ENGINEERING LIMITED FOR INSTALLATION OF 1.5MTPA IRON ORE BENEFICIATION PLANT OVER AN AREA 24.635 ACRES(9.969 HA) LOCATED AT VILLAGE- SANINDIPUR, KOIDA, DIST.- SUNDARGARH OF SRI DINESH SHARMA - TOR

1. The alternate sites considered, the relative merits and demerits and the reasons for selecting the proposed site for the Beneficiation Plant should be indicated.
2. Details of the technology and process involved for beneficiation should be given.
3. Location of the proposed Plant w.r.t. the source of raw material and mode of transportations of the ore from mines to the beneficiation plant should be justified.
4. Treatment of run of mine (ROM) and or of the fines/waste dump should be spelt out.
5. Estimation of the fines going into the washings should be made and its management described.
6. Details of the equipment, settling pond etc. should be furnished.
7. Detailed material balance should be provided.
8. Sources of raw material and its transportation should be indicated. Steps proposed to be taken to protect the ore from getting air borne should be brought out.
9. Management and disposal of tailings and closure plan of the tailing pond, if any after the project is over, should be detailed in a quantified manner.
10. The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should also be indicated.
11. A copy of the document in support of the fact that the Proponent is the rightful lessee of the unit should be given.
12. All documents including EIA and public hearing should be compatible with one another in terms of the production levels, waste generation and its management and technology and should be in the name of the lessee.
13. All corner coordinates of the Unit, superimposed on a High Resolution Imagery/Toposheet should be provided. Such an Imagery of the proposed Unit should clearly show the land use and other ecological features of the study area (core and buffer zone).
14. Issues relating to Safety should be detailed. The proposed safeguard measures in each case should also be provided. Disaster management plan shall be prepared and included in the EIA/EMP Report.
15. The study area will comprise of 10 km zone around the Plant.

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Environmental Scientist, SEAC

16. Cumulative impact study of both Beneficiation Plant with suggested mitigation measures as per the study should be described.
17. Option to provide only silo for storage of minerals instead of open stacking to avoid fugitive dust should be explored and arrangements finalized justified.
18. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
19. Details of the land for any Over Burden Dumps outside the lease, such as extent of land area, distance from lease, its land use, R&R issues, if any, should be given.
20. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the Project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
21. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
22. A study shall be got done to ascertain the impact of the Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigative measures required, should be worked out with cost implications and submitted.
23. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
24. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

25. Proximity to Areas declared as 'Critically Polluted' shall also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB/CPCB shall be secured and furnished to the effect that the proposed activities could be considered.
26. R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects, should be discussed in the report.
27. One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the unit in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
28. Air quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
29. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
30. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be secured and copy furnished. .
31. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
32. Impact of the project on the water quality, both surface and groundwater should be assessed and necessary safeguard measures, if any required, should be provided.

Triyak
Environmental Scientist, SEAC

33. Details of any stream, seasonal or otherwise, passing through the project area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
34. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the project. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to the pollution.
35. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.
36. Details of the onsite shelter and facilities to be provided to the workers should be included in the EIA report.
37. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area should be detailed.
38. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
39. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
40. Public hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
41. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
42. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
43. A brief background of the Project, its financial position, Group Companies and legal issues etc. should be provided with past and current important litigations if any.
44. Benefits of the Project, if the project is implemented should be outlined. The benefits of the projects shall clearly indicate environmental, social, economic, employment potential, etc.

45. Besides the above, the below mentioned general points are also to be followed:-
- (a) Executive Summary of the EIA/EMP Report
 - (b) All documents to be properly referenced with index and continuous page numbering.
 - (c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - (d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the project.
 - (e) Where the documents provided are in a language other than English, an English translation should be provided.
 - (f) The Questionnaire for environmental appraisal of project as devised earlier by the Ministry shall also be filled and submitted.
 - (g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should also be followed.
 - (h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered.
 - (i) Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation. As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified Report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project by the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
46. **THE TORS PRESCRIBED SHALL BE VALID FOR A PERIOD OF THREE YEARS FOR SUBMISSION OF THE EIA-EMP REPORTS ALONG WITH PUBLIC HEARING PROCEEDINGS (WHEREVER STIPULATED) AS PER MOEF&CC, GOVT. OF INDIA O.M. NO. J-11013/41/2006-IA-II(I)(P), DATED 07.11.2014.**

ANNEXURE- C

TERMS OF REFERENCE (ToR) FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT OF M/S HIGH GRADE MINERAL PRIVATE LIMITED (HGMP) FOR IRON ORE BENEFICIATION PLANT OF CAPACITY 9,60,000 TPA OVER AN AREA OF 6.97 ACRE LOCATED VILLAGE DUBUNA, BARBIL, DIST- KEONJHAR OF SRI GANESH KUMAR SHARMA - TOR

1. The alternate sites considered, the relative merits and demerits and the reasons for selecting the proposed site for the Beneficiation Plant should be indicated.
2. Details of the technology and process involved for beneficiation should be given.
3. Location of the proposed Plant w.r.t. the source of raw material and mode of transportations of the ore from mines to the beneficiation plant should be justified.
4. Treatment of run of mine (ROM) and or of the fines/waste dump should be spelt out.
5. Estimation of the fines going into the washings should be made and its management described.
6. Details of the equipment, settling pond etc. should be furnished.
7. Detailed material balance should be provided.
8. Sources of raw material and its transportation should be indicated. Steps proposed to be taken to protect the ore from getting air borne should be brought out.
9. Management and disposal of tailings and closure plan of the tailing pond, if any after the project is over, should be detailed in a quantified manner.
10. The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should also be indicated.
11. A copy of the document in support of the fact that the Proponent is the rightful lessee of the unit should be given.
12. All documents including EIA and public hearing should be compatible with one another in terms of the production levels, waste generation and its management and technology and should be in the name of the lessee.
13. All corner coordinates of the Unit, superimposed on a High Resolution Imagery/Toposheet should be provided. Such an Imagery of the proposed Unit should clearly show the land use and other ecological features of the study area (core and buffer zone).
14. Issues relating to Safety should be detailed. The proposed safeguard measures in each case should also be provided. Disaster management plan shall be prepared and included in the EIA/EMP Report.
15. The study area will comprise of 10 km zone around the Plant.

16. Cumulative impact study of both Beneficiation Plant with suggested mitigation measures as per the study should be described.
17. Option to provide only silo for storage of minerals instead of open stacking to avoid fugitive dust should be explored and arrangements finalized justified.
18. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
19. Details of the land for any Over Burden Dumps outside the lease, such as extent of land area, distance from lease, its land use, R&R issues, if any, should be given.
20. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the Project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
21. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
22. A study shall be got done to ascertain the impact of the Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigative measures required, should be worked out with cost implications and submitted.
23. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
24. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

J. Naik
Environmental Scientist, SEAC

25. Proximity to Areas declared as 'Critically Polluted' shall also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB/CPCB shall be secured and furnished to the effect that the proposed activities could be considered.
26. R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects, should be discussed in the report.
27. One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the unit in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
28. Air quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
29. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
30. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be secured and copy furnished. .
31. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
32. Impact of the project on the water quality, both surface and groundwater should be assessed and necessary safeguard measures, if any required, should be provided.

33. Details of any stream, seasonal or otherwise, passing through the project area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
34. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the project. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to the pollution.
35. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.
36. Details of the onsite shelter and facilities to be provided to the workers should be included in the EIA report.
37. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area should be detailed.
38. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
39. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
40. Public hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
41. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
42. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
43. A brief background of the Project, its financial position, Group Companies and legal issues etc. should be provided with past and current important litigations if any.
44. Benefits of the Project, if the project is implemented should be outlined. The benefits of the projects shall clearly indicate environmental, social, economic, employment potential, etc.

45. Besides the above, the below mentioned general points are also to be followed:-
- (a) Executive Summary of the EIA/EMP Report
 - (b) All documents to be properly referenced with index and continuous page numbering.
 - (c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - (d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the project.
 - (e) Where the documents provided are in a language other than English, an English translation should be provided.
 - (f) The Questionnaire for environmental appraisal of project as devised earlier by the Ministry shall also be filled and submitted.
 - (g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should also be followed.
 - (h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered.
 - (i) Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation. As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified Report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project by the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
46. **THE TORS PRESCRIBED SHALL BE VALID FOR A PERIOD OF THREE YEARS FOR SUBMISSION OF THE EIA-EMP REPORTS ALONG WITH PUBLIC HEARING PROCEEDINGS (WHEREVER STIPULATED) AS PER MOEF&CC, GOVT. OF INDIA O.M. NO. J-11013/41/2006-IA-II(I)(P), DATED 07.11.2014.**

J Nayak
Environmental Scientist, SEAC