



## State Level Environment Impact Assessment Authority, Jharkhand

Nursery Complex, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834 004

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Letter No.-EC/SEIAA/2023-24/2912/2023/

Ranchi, Date:

To: **M/s Kumardhubi Steels Private Limited,  
Director - Shri Sushil Singh, S/o Ranvijay Singh,  
Village – Rajpura, P.O. - Kumardhubi,  
District – Dhanbad, Jharkhand.**

Sub: Prescribing of ToR to “Expansion of existing 27000 TPA M.S. Ingot unit to 1,48,500 TPA MS Ingot / Billets by installing 3x15 T (by replacement of existing 2x4 T Furnace with 2x15 T & Addition of 1x15 T IF) along with CCM- 1x2 strand, 4/7 m radius, enhancement of slag crusher capacity from 9000 TPA to 33,000 TPA and production of 1,45,500 TPA Rolled Products (TMT Bars / Structural / etc) by installing 1x25 TPH Rolling Mill along with 1x30 TPH capacity reheating furnace (for emergency use) by M/s Kumardhubi Steels Pvt. Ltd., Village : Rajpura, P.O. : Kumardhubi, District : Dhanbad, Jharkhand” (Proposal No. : SIA/JH/IND1/440302 /2023) - regarding.

Ref: Your application no.- Nil. dated – 14.08.2023.

Sir,

It is in reference to the project “Expansion of existing 27000 TPA M.S. Ingot unit to 1,48,500 TPA MS Ingot / Billets by installing 3x15 T (by replacement of existing 2x4 T Furnace with 2x15 T & Addition of 1x15 T IF) along with CCM- 1x2 strand, 4/7 m radius, enhancement of slag crusher capacity from 9000 TPA to 33,000 TPA and production of 1,45,500 TPA Rolled Products (TMT Bars / Structural / etc) by installing 1x25 TPH Rolling Mill along with 1x30 TPH capacity reheating furnace (for emergency use) by M/s Kumardhubi Steels Pvt. Ltd., Village : Rajpura, P.O. : Kumardhubi, District : Dhanbad, Jharkhand” submitted by you for seeking Terms of Reference (ToR).

This is an expansion project which has been taken for appraisal on 19.08.2023.

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 amendments thereafter. For this purpose the Project Proponent has submitted the prescribed Form - I & PFR the proposed project falls under item 3 (a) Metallurgical Industries (Ferrous & Non Ferrous) as per EIA Notification, 2006.

M/s Kumardhubi Steels Pvt Ltd (KSPL) has made ToR Application vide proposal no. SIA/JH/IND1/440302/2023 dated 13.08.2023 along with Form – 1, copy of Pre-Feasibility Report for undertaking detailed study as per the EIA Notification, 2006 for the above mentioned project. The proposed project activity is listed as S.No. 3(a) Metallurgical Industry, under Category 'B' of the schedule of the EIA Notification, 2006.

The project M/s KSPL is located at Village: Rajpura, P.O.: Kumardhubi, District: Dhanbad, Jharkhand is for expansion of existing 27000 TPA M.S. Ingot unit to 148,500TPA MS Ingot/Billets by installing 3x15T (by replacement of existing 2x4T Furnace with 2x15T & Addition of 1x15T Furnace) along with CCM-1x2 strand, 4/7m radius, enhancement of slag crusher capacity from 9,000TPA to 33,000TPA and Production of 145,500TPA Rolled Products (TMT Bars/Structural/etc.) by installing 1x25TPH Rolling Mill along with 1x30TPH capacity reheating furnace (for emergency use).

Saleable products will be M.S. Ingot/Billets – 148,500 TPA or Rolled Products (TMT Bars/Structural/etc.) – 145,500 TPA or combination of both as per market demand, within prescribed capacity.

**Environmental settings of the site:**

Sl.No.	Particulars	Details			Remarks													
1.	Total Land	2.02 Ha			Land Use: Industrial Land													
2.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Total area – 2.02 Ha (4.99 acres)  [Acquired Land: 2.02 Ha]   Additional 0.55 Ha. (1.36 acres) land for plantation			Additional land 1.36 acres to be acquired for plantation													
3.	Existence of habitation & involvement of R&R, if any	<b>Project Site:</b> Nil  <b>Study Area:</b> <table><tr><th>Nearest Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Egarkunr village</td><td>0.05km</td><td>South</td></tr><tr><td>Rajpura Village</td><td>0.13km</td><td>West</td></tr></table>			Nearest Habitation	Distance	Direction	Egarkunr village	0.05km	South	Rajpura Village	0.13km	West	R&R: Not Involved				
Nearest Habitation	Distance	Direction																
Egarkunr village	0.05km	South																
Rajpura Village	0.13km	West																
4.	Latitude and longitude of all corners of the project site	<table><tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr><tr><td>1</td><td>23° 45' 50.278" N</td><td>86° 46' 3.839" E</td></tr><tr><td>2</td><td>23° 45' 49.465" N</td><td>86° 46' 4.886" E</td></tr><tr><td>3</td><td>23° 45' 47.750" N</td><td>86° 46' 5.763" E</td></tr><tr><td>4</td><td>23° 45' 47.070" N</td><td>86° 46' 5.403" E</td></tr></table>	Point	Latitude	Longitude	1	23° 45' 50.278" N	86° 46' 3.839" E	2	23° 45' 49.465" N	86° 46' 4.886" E	3	23° 45' 47.750" N	86° 46' 5.763" E	4	23° 45' 47.070" N	86° 46' 5.403" E	
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Sl.No.	Particulars	Details			Remarks															
		5	23° 45' 47.059" N	86° 46' 3.946" E																
		6	23° 45' 45.246" N	86° 46' 3.829" E																
		7	23° 45' 43.030" N	86° 46' 2.618" E																
		8	23° 45' 44.232" N	86° 45' 59.387" E																
		9	23° 45' 45.232" N	86° 45' 57.992" E																
		10	23° 45' 48.812" N	86° 45' 59.746" E																
		11	23° 45' 50.220" N	86° 46' 1.242" E																
		12	23° 45' 49.352" N	86° 46' 2.877" E																
5.	Elevation of the project site	166 – 169 meters above mean sea level																		
6.	Involvement of Forest Land, if any	No Involvement of Forest Land																		
7.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<b>Project Site:</b> Nil <b>Study Area:</b> <table><thead><tr><th>Water-body</th><th>Distance (Km)</th><th>Direction</th></tr></thead><tbody><tr><td>Khudia River</td><td>2.79</td><td>NW</td></tr><tr><td>Barakar River</td><td>4.84</td><td>E</td></tr><tr><td>Maithon Reservoir</td><td>4.03</td><td>NE</td></tr><tr><td>Panchet Reservoir</td><td>7.80</td><td>SW</td></tr></tbody></table>			Water-body	Distance (Km)	Direction	Khudia River	2.79	NW	Barakar River	4.84	E	Maithon Reservoir	4.03	NE	Panchet Reservoir	7.80	SW	
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7.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	<b>Study area:</b> No existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/Reserve Forest/ tiger reserve/ elephant reserve etc. if any within the study area  <b>List of Protected Forest</b> <ul style="list-style-type: none"><li>➤ Puyaldih PF is at 2.71 km in NNE direction</li><li>➤ Gogna PF is at 4.43 km in NE direction</li><li>➤ Maithon PF is at 6.08 km in ENE direction</li></ul>																		

Proposed expansion shall be done within the existing plant area of 2.02 Ha (4.99 Acres). land details as below:

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**Khata no. & Plot no. of the project :**

Khata No.	Plot No.
3	690, 697
97	695
98	691, 692, 693
203	696

The plant is operating on CTE/ CTO of Jharkhand State Pollution Control Board (JSPCB) as the project did not attract any conditions as per the EIA Notification, 2006. The existing project was accorded with Consent to Establish (CTE) vide letter no. 2822 dated 06.05.2003 from JSPCB for production of 45TPD MS Ingots. Thereafter, company enhanced its production of MS Ingots from 45TPD to 90TPD after obtaining another CTE vide memo no. LN-329 dated 07.12.2010 from JSPCB. CTE was obtained from JSPCB vide Lt. no. JSPCB/HO/RNC/CTE-8777503/2020/386 dt. 06.10.2020 for installation of Slag Crusher for capacity 9,000TPA and CTO for the same was obtained from JSPCB vide Lt. no. JSPCB/HO/RNC/CTO-13168641/2022/957 dt. 04.07.2022 and is valid till 30.06.2024. At present company is having CTO dated 12.09.2019 from JSPCB for the production of 27,000TPA MS Ingots, valid till 30.06.2024.

The unit configuration and capacity of existing and proposed project is given as below:

Sl. No	Plant Facilities	Existing Configuration		Proposed Configuration		Final Configuration	
		Unit	Capacity	Unit	Capacity	Unit	Capacity
1.	Induction Furnace	2x4T	27,000TPA MS Ingot	3x15T IF (replacement of Existing 2x4T Furnace with 2x15T & Addition of 1x15T Furnace)	148,500TPA MS Ingot/Billets	3x15T	MS Ingot/Billets 148,500 TPA
	Continuous Casting Machine	1 x 2 strand Rad - 4/7 m				1 x 2 strand Rad - 4/7 m 1x15 T LRF	
2.	Reheating Furnace (emergency use)	--	--	1x30 TPH	99,000 TPA	1x30TPH	99,000 TPA
3.	Rolling Mill (Direct Hot Charging)	--	--	1x25TPH	145,500 TPA Rolled Products (TMT Bars, Structural, etc)	1x25TPH	145,500 TPA Rolled Products (TMT Bars, Structural, etc.)

Sl. No	Plant Facilities	Existing Configuration		Proposed Configuration		Final Configuration	
		Unit	Capacity	Unit	Capacity	Unit	Capacity
4.	Slag Crusher	1x3TPH	9000 TPA Max.	Capacity enhancement of Slag Crusher to 1x10TPH	24,000 TPA Max.	1x10TPH	33,000 TPA Max.

The details of the raw material requirement for the proposed project along with its source and mode of transportation are given as below:

Sl. No	Item	Existing Requirement in TPA	Proposed Requirement in TPA	Total Requirement in TPA	Source	Distance & Mode of Transport
<b>STEEL MELTING SHOP –(MS Ingot/Billets 148,500 TPA)</b>						
1.	Sponge Iron	21,600	97,200	1,18,800	Sponge Iron & Steel Plants in Jharkhard	40 to 120 km By Road
2.	Pig Iron	8,100	36,450	44,550		
3.	Scrap	4,050	18,225	22,275		
4.	Ferro-alloys	54	243	297		
<b>Total</b>		<b>33,804</b>	<b>152,118</b>	<b>185,922</b>		
<b>ROLLING MILL –145,500TPA Rolled Products (TMT Bar, Structural, etc.)</b>						
1.	Hot MS Ingot/Billets	--	148,500	148,500	In house	--
<b>REHEATING FURNACE- 1x30TPH (emergency &amp; startup use)</b>						
1.	Coal/ Furnace Oil	--	11088 TPA/ 3300 KL	11088 TPA/ 3300 KL	Purchase from open market	Within 10kms

The existing water requirement for the plant is 30KLD. The total water requirement after the proposed expansion is 190KLD. The water is/will be sourced from ground water through bore well. Company has obtained NOC dated 01.06.2021 from Central Ground Water Authority (CGWA) for the withdrawal of 50KLD of groundwater and is valid upto 31.05.2024 and permission for additional water required will also be obtained from CGWA.

Total requirement of power for the after proposed expansion will be 22.0MVA. Existing requirement of power for the operation of existing units is 3.0MVA and requirement is met through DVC. Permission for the additional power requirement shall be obtained from DVC.

An estimated capital cost of the project is Rs. 4450.0 Lakhs. Total estimated cost after the expansion will be Rs. 4814.92 Lakhs. The employment generation from the proposed expansion will be 133 Nos.

This project will be installed within the existing area of 2.02 Ha (4.99 Acres). An additional Land of 1.36Acres (0.55 ha) will be acquired within 5 Km of the project boundary for development of plantation. With this total area developed as greenbelt/plantation by the company will be 2.10Acres, including the greenbelt area of 0.743 acres within the project

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site. The total plantation of 2.10 acres will be approx. 42.08% of the plant area and 33.07% of the combined project activity area of 6.35 acres (4.99 acres + 1.36 acres).

Name of the EIA consultant: M/s Vardan Environet [S.No. 37 in List of ACOs. Certificate no. NABET/EIA/2326/RA 0284, valid up to 04.05.2026].

Terms of Reference Baseline data collection period: 1<sup>st</sup> March 2023 to 31<sup>st</sup> May 2023 as below:

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
<b>A. Air</b>				
a. Meteorological parameters	Temp., Relative Humidity, Wind Speed, Wind Direction, Rainfall	1 Location	Hourly sampling for three months	Secondary data from IMD, New Delhi for the nearest IMD station
b. AAQ parameters	PM10, PM2.5, SO2, NOx, CO	8 Locations	24-hourly sampling, twice a week for 12 weeks	Monitoring Network: 1 location in nearby habitation, 2 locations in upwind, 2 location in downwind, 2 in Crosswind and 1 project Site (Covering all sensitive receptors also)
<b>B. Noise</b>	Leq (Day & Night), Lmax (Day & Night), Lmin (Day & Night)	8 Locations	24-hourly sampling, twice in a week (working and non-working day) for 3 months	Monitoring Network: 1 at the project site, 7 in the nearby villages (All the sensitive receptors covered)
<b>C. Water</b>				
a. Surface water quality parameters	pH, EC, NO3, Na, K, Fe, Al, Ca, Cl, Cr, Mg, TDS, TSS, DO, SO4, F, BOD, COD, Zn, Cu, Mn, Cd, Turbidity, Odour	8 Locations	Once in a day in each month for one season	Sampling from Barakar River, Maithon Reservoir, Khudiya Nadi and 4 from Village Ponds







Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
b. Ground water quality parameters	pH, Ca, Cl, Mg, TDS, SO <sub>4</sub> , F, NO <sub>3</sub> , Fe, Al, Zn, Cu, Mn, Cd, Pb, Hg, EC, Turbidity, Odour	8 Locations	Once in a day in each month for one season	One grab sample per location
<b><i>D. Land</i></b>				
a. Soil quality	pH, Conductivity, Soil Texture, Water Holding Capacity, Cl, Ca, Na, K, Organic matter, Mg, N, Zn, Mn, Phosphorus, Pb, Cd, Cr, Cu.	8 Locations	Once in a day in each month for one season	One sample from project site and one from Agriculture land, forest area, near water body and nearby villages.
<b><i>E. Biological</i></b>				
a. Aquatic	Species of Plants and Avifauna	10 km Radius study area	one season	Secondary data has been collected from Government offices, NGOs, published literature
b. Terrestrial	Species of Plants and Animals	10 km Radius study area	one season	Secondary data has been collected from Government offices, NGOs, published literature
<b><i>F. Socio-economic parameters</i></b>	Demographic details and Occupational details	10 km Radius study area	One Season	Secondary data from census records, statistical hard books, Topo sheets, health records and relevant official records available with Govt.

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
				agencies.

It has been informed by the project proponent that no court case, litigation or show cause is pending against the unit.

#### STATUTORY CLEARANCES:

1	LOI/Lease docs	:	Land lease deed (M/s Kumardhubi Steels Pvt. Ltd.)
2	CO	:	The CO, Nirsa (Dhanbad) vide letter no. 77, dated 25.01.2020 and CO. Agyarkund (Dhanbad) vide letter no. 903, dated 13.07.2023 have mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyan & Register II.
3	DFO Wild Life	:	DFO, Wildlife Hazaribag vide letter no. 237, dated 01.02.2020 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Dhanbad Forest Division vide letter no. 373, dated 18.02.2020 certified that the distance of reserved / protected forest is 2000 meters from project site.
5	No Objection Certificate (NOC)	:	<b>NOC</b> issued by JSPCB vide : i. Ref. no. : 2822, dated 06.05.2003. ii. Memo no. : LN-329, dated 07.12.2010.
6	Consent to Establish (CTE)	:	<b>CTE</b> issued by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTE-8777503/2020/386, dated 06.10.2020.
7	Consent to Operate (CTO)	:	<b>CTO</b> issued by JSPCB vide Ref. no. : i. JSPCB/HO/RNC/CTO-5657700/2019/1801, dated 12.09.2019. ii. JSPCB/HO/RNC/CTO-13168641/2022/957, dated 04.07.2022.
8	CGWA	:	No Objection Certificate (NOC) for Ground Water Abstraction vide NOC no. CGWA/NOC/IND/ORIG/2021/12409, dated 01.06.2021 (valid up to 31.05.2024)



SEAC, Jharkhand has recommended the ToRs in its 107<sup>th</sup> meeting held on 16<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup>, 19<sup>th</sup>, and 20<sup>th</sup> August, 2023 for undertaking detailed EIA / EMP study and SEIAA. Jharkhand has granted the ToRs in its 108<sup>th</sup> meeting held on 27<sup>th</sup> & 28<sup>th</sup> August, 2023. The SEAC has recommended following conditions:

**The TORs prescribed for undertaking detailed EIA study are as follows:**

**A. Standard Terms of Reference**

**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, Forest and Climate Change as per OM no. F.no. IA3-22/10/2022-IA.III [E 177258], dated 08<sup>th</sup> June, 2022 on the status of compliance of conditions stipulated in all the existing environmental clearances including 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-

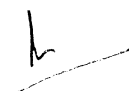
2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

#### **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. Landuse 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&F 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. Landuse 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 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.
- vii. 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.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 2500 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.

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## 8. Occupational health:

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and 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 analyzed 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 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.

**A. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR METALLURGICAL INDUSTRIES (FERROUS & NON FERROUS)**

1. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs & outputs (material and energy balance).
2. Details on blast furnace/ open hearth furnace/ basic oxygen furnace/ladle refining, casting and rolling plants etc.
3. Details on installation/activation of opacity meters with recording with proper calibration system
4. Details on toxic metals including mercury, arsenic and fluoride emissions
5. Details on stack height requirement for integrated steel
6. Details on ash disposal and management -Non-ferrous metal
7. Complete process flow diagram describing production of lead/zinc/copper/ aluminium, etc.
8. Raw materials substitution or elimination
9. Details on smelting, thermal refining, melting, slag fuming, and Waelz kiln operation
10. Details on Holding and de-gassing of molten metal from primary and secondary aluminum, materials pre-treatment, and from melting and smelting of secondary aluminium
11. Details on solvent recycling
12. Details on precious metals recovery
13. Details on composition, generation and utilization of waste/fuel gases from coke oven plant and their utilization.
14. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
15. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
16. Trace metals in waste material especially slag.
17. Plan for trace metal recovery
18. Trace metals in water.

**B. Other**

1. Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of SEIAA, Jharkhand with reasons for such changes and permission should be sought, as the TOR may also have to be altered.

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2. After preparing the draft EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.
3. The Prescribed ToRs is valid as per O.M. F. No. IA3-22/10/2022-IA.III[E177258], dated 08.06.2022. of MoEF & CC. Govt. of India.

Sd/-

Member Secretary  
State Level Environment Impact  
Assessment Authority, Jharkhand.

Memo No.-EC/SEIAA/2023-24/2912/2023/ 267

Dated: 13/09/2023

Copy to:

1. Member Secretary, Jharkhand State Pollution Control Board, Ranchi for information and necessary action.
2. Secretary, SEAC, Jharkhand, Ranchi for information and necessary action.

Member Secretary

State Level Environment Impact  
Assessment Authority, Jharkhand.

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