GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-1 SECTOR)

*****

Dated: 24th February 2023

Date of Zero Draft MoM sent to EAC:22.02.2023
Approval by Chairman:24.02.2023
Uploading on PARIVESH:24.02.2023

MINUTES OF THE 23rd EXPERT APPRAISAL COMMITTEE (INDUSTRY-1 SECTOR) MEETING HELD ON FEBRUARY 14-15, 2023

Venue: **Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 110003 through Video Conferencing**

Time: **10:30 AM onwards**

DAY-1: FEBRUARY 14, 2023 [TUESDAY]

(i) Opening Remarks by the Chairman, EAC

Shri. Rajive Kumar, Chairman EAC welcomed the Committee members and opened the EAC meeting for further deliberations.

Shri. Rajive Kumar also appreciated the efforts of the Ministry's Team (Industry 1 Sector) for preparation and uploading the agenda of the EAC meetings and draft record of discussion very scientifically, systematically and timely on Parivesh Portal.

(ii) Details of Proposals and Agenda by the Member Secretary

Dr. R. B. Lal, Scientist 'F' & Member Secretary, EAC (Industry-1 Sector) appraised to the Committee about the details of Agenda items to be discussed during this EAC meeting.

(iii) Confirmation of the Minutes of the 22nd Meeting of the EAC (Industry-1 Sector) held during February 14-15, 2023 at MoEF&CC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-1 Sector) members on the minutes of its **22nd Meeting of the EAC (Industry-1 Sector) held during January 30-31, 2023** conducted through Video Conferencing, and noted that there is a modifications/factual correction, in the minutes of the 22nd EAC meeting for the project/activities as follows:

Agenda No. 22.3: Greenfield Project of Primary Metallurgical Process (Ferro Alloys) for production of 35,176 TPA (maximum) Ferro Manganese/Silico Manganese/Ferro Chrome/Silico Chrome (SAF)/ Ferro Silicon) and 2 x 4.5 MTPA to make 29,700 MTPA Low Carbon Ferro Chrome (EAF) at MouzaChausal, P.S Gangajalghati, District- Bankura, West Bengal by located at Mouza- Chausal, P.S Gangajalghati, District- Bankura, West Bengal by M/s Hariaksh Industries Private Limited– Consideration of Environmental Clearance.

[Proposal No. IA/WB/IND1/410990/2022; File No. IA-J-11011/167/2019-IA-II(IND-I)]

The aforementioned proposal was considered and recommended by EAC in its 22nd meeting of the EAC for Industry-I sector held on 30-31st January, 2023. Period of baseline monitoring was incorrectly mentioned in the MoM of 22nd EAC, which may be corrected as following -

Ref in MoM	Mentioned in the MoM of 22nd EAC meeting	Proposed Modificaion / Correction
Page No. 60 Para 22.3.10 Baseline Environmental Studies	**Period:** Post Monsoon Season: 1st October 2018 to 31st December 2018	**Period:** 1st December, 2021 to 28th February, 2022

Deliberations by the EAC:

It was informed to the Committee members that a period of baseline monitoring was incorrectly mentioned in the MoM of 22nd EAC for Industry-I sector held during January 30-31, 2023 pertaining to proposal agenda no. 22.3 as referred above.

The EAC noted that the suggestions made by the Ministry may be accepted and recommended for the incorporation of the above mentioned corrections/modifications in the minutes of the meeting. Accordingly, [Para 22.3.10, Baseline Environmental Studies] stands modified in the minutes of 22nd EAC (Industry-1) meeting as detailed in table above.

Details of the proposals considered during the 22nd meeting **conducted** through **Video Conferencing**, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under:

Consideration of Environmental Clearance Proposals

Agenda No. 23.1

23.1 Proposed Production of Low Carbon Ferro Manganese(100 TPM) or Low Carbon Silico Manganese (100 TPM) or Low Carbon Ferro Chrome (100 TPM) at Plot No - 16, APIIC Growth Center, Phase - 1, Bobbili Mandalam, Vizianagaram District, Andhra Pradesh by M/s Sri Santhi Industries - Consideration of Environmental Clearance.

[Proposal No. IA/AP/IND1/412497/2023; File No. IA-J-11011/97/2021-IA-II(IND-I)]
[Consultant: Grass Roots Research & Creation India (P) Ltd.; Valid Upto: 15.02.2023]

23.1.1 Consideration of the proposal was **deferred** as the Project Proponent did not attend the meeting. The Member Secretary appraised the Committee that M/s Sri Santhi Industries vide letter dated

10.02.2023 sent through email dated 10.02.2023 informed that they will not be able to attend the meeting due to some unavoidable circumstances. Taking into consideration the communication from the PP, EAC requested the Ministry to place the proposal in the EAC meeting only after receiving further request/communication from project proponent.

Agenda No. 23.2

23.2 Installation of additional 12 MT Induction Furnace to produce 36,000 TPA MS Billets, activity covered under 3 (a) Metallurgical Industries. Existing production capacity Sponge Iron: 2 X 100 TPD – 60,000 TPA, WHRB – 2 X 3 MW, Induction Furnace 12 MT – 36,000 TPA MS Billets and Biomass Based Power Plant – 5 MW by M/s Sunil Sponge Pvt. Ltd., located at Plot No. 96, 97, Siltara Phase II Industrial Area, Village Siltara, Tehsil & District–Raipur, Chhattisgarh – Consideration of Environmental Clearance under violation category of Notification 14.03.2017 - regarding.

[Proposal No. IA/CG/IND/68723/2017; File No. 23-121/2018-IA.III(V)]
[Consultant: M/s Anacon Laboratories Pvt. Ltd.; 29.03.2023]

23.2.1 M/s. Sunil Sponge Private Limited has made an online application vide Proposal No. IA/CG/IND/68723/2017 dated 28.01.2023 along with copy of EIA/EMP report, Form 2 and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The project is regularization under Notification dated 14.03.2017 (violation case) and project activity is listed at S.No.3 (a) Metallurgical industries under category "A" of the schedule of EIA Notification 2006 and attracts general condition due to Critically Polluted areas as notified by the Central Pollution Control Board (CPCB) from time to time and appraised at the central level.

23.2.2 Name of the EIA consultant: M/s Anacon Laboratories Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0160; valid upto 29.03.2023, as on February 16, 2023].

Details submitted by Project proponent

23.2.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
12.09.2017	22nd Meeting of EAC (Violation Sector) held during 21-22nd May, 2019	Terms of references	18.07.2019	17.07.2023

23.2.4 The project M/s. Sunil Sponge Private Limited located in Plot No. 96, 97, Siltara Phase II Industrial Area, Village – Siltara, Tahsil - Raipur, District - Raipur, Chhattisgarh is for installation of additional 12 MT Induction Furnace to produce 36,000 TPA MS Billets. Existing

production capacity Sponge Iron: 2 X 100 TPD – 60,000 TPA, WHRB – 2 X 3 MW, Induction Furnace 12 MT – 36,000 TPA MS Billets and Biomass Based Power Plant – 5 MW.

23.2.5 Environmental Site Settings:

<table>
<tr><th>Sl.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>Total land – 3.023 Ha</td><td>As per ToR, total plant area is 3.023 Ha. (Plot no. 96 & 97), out of which green belt coverage is 0.392 Ha. (i.e.12.97%) and balance green belt area 0.846 Ha. (i.e. 27.99%) developed at adjoining plot 1.846 ha (Plot No. 94 & 95) which is also registered in the name company. Thus, total green belt will be within 1.238 Ha. i.e. 40.96%. Both the lease land, i.e., 3.023 ha (Plot No. 96 & 97) and 1.846 ha (Plot No. 94 & 95), are in the name of Sunil Sponge Private Ltd. under an agreement with CSIDC. (A Govt. of Chhattisgarh undertaking).</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Total 3.023 Ha land already acquired by M/s. Sunil Sponge Pvt. Ltd. The land is already diverted for industrial purpose. There is no additional land required to be acquired by the company.</td><td>Lease agreement with CSIDC. (A Govt. of Chhattisgarh undertaking). CSIDC plot issued for industrial purpose.</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project Site: Not any
Study Area:<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Sondra</td><td>1.7 km</td><td>SSW</td></tr></table>Patch of habitation adjacent to Plant premises in SE direction
No R&R is involved.</td><td>R & R - NA</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all corners of the project site.</td><td>Latitude : $21^0$22’42.29"N ;
Longitude : $81^0$38’50.78"E</td><td>-</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>Project site located at 275 m (MSL) max</td><td>The entire area is almost flat with moderate gradient</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>There is no forest land involved in the project area.</td><td>-</td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Study area:<table><tr><th>Sl.</th><th>Name of the Water Body</th><th>Distance (KM)</th><th>Direction</th></tr><tr><td>1</td><td>Kharun River</td><td>2.4</td><td>WNW</td></tr></table></td><td>-</td></tr>
</table>

Sl.	Particulars	Details				Remarks
		2	Chhokra Nala	1.4	W	
		3	Kulhan Nala	9.7	ENE	
viii.	Existence of ESZ/ESA / national park/ wildlife sanctuary/ biosphere reserve/tiger reserve/ elephant reserve etc. if any within the study area	Nil				-

23.2.6 The PP had obtained Consent to Establish from CECB on 10/09/2003 for establishment of 100 TPD X 1 Nos. Sponge Iron Kiln annual capacity 30000 TPA to produce sponge iron from Coal based DRI kiln process from Iron Ore. For this company has obtained Consent to Operate on 27/07/2005. Company had got another CTE on 07/04/2006 and Consent to Operate 06/07/2006 for second 100 TPD Kiln annual capacity 30000 TPA to produce sponge iron from Coal based DRI kiln process from Iron Ore along with 12 MT Induction Furnace to produce 36000 TPA MS Billets. The company had obtained Consent to Establish for WHRB 3 MW X 2 Nos. on 04/02/2010 and Consent to Operate granted on 20/06/2012. It is a clean technology process which does not require any fuel and is exempt from seeking EC. Consent to Establish for Biomass based 5 MW power plant obtained on 06/03/2014. The Biomass based power plant is established and Consent to Operate has obtained on 07.09.2018. The latest Clubbed Consent to Operate for the existing units was accorded by Chhattisgarh Environment Conservation Board vide CTO: No. 2317/TS/CECB/ 2020 Nava Raipur Atal Nagar, Dated: 27/06/2020 for Sponge Iron (2 x 100 TPD DRI Kiln) - 60,000 TPA, Waste Heat Recovery Based Power- Plant 06 MW, Induction Furnace (12 T) and Biomass Based Thermal Power Plant 5 MW. The validity of CTO is up to 30/06/2023.

23.2.7 Implementation status of the existing CTE/CTO

Sl. No.	Description	Production Capacity with Configuration	CTE/CTO	Clubbed CTO
1	Sponge Iron Kiln to produce sponge iron from Coal based DRI kiln process from Iron Ore	30000 TPA (100 TPD X 1 No.)	CTE 10/09/2003 CTO 27/07/2005	• Sponge Iron (2 x 100 TPD DRI Kiln) - 60,000 TPA • Waste Heat Recovery Based Power Plant 06 MW • Induction Furnace (12 T) • Biomass Based Thermal Power Plant 05 MW
2	• Sponge Iron Kiln to produce sponge iron from Coal based DRI kiln process from Iron Ore • 12 MT Furnace produce Induction to 3600 TPA MS Billets	30000 TPA (100 TPD X 1 No.) 36000 TPA (12 MT x 1 No.)	CTE on 07/04/2006 CTO on 06/07/2006	

Sl. No.	Description	Production Capacity with Configuration	CTE/CTO	Clubbed CTO
3	WHRB	3 MW X 2 Nos.	CTE 04/02/2010 CTO 20/06/2012	CTO: No. 2317/TS/CECB/ 2020 Nava Raipur Atal Nagar, Dated: 27/06/2020 valid up to 30/06/2023)
4	Biomass based power plant	5 MW	CTE on 06/03/2014 CTO 07.09.2018	

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

S. No.	Plant Equipment/ Facility	Existing Facilities as per CTO		Proposed Units		Final (Existing + Proposed)		Remarks
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	
1.	Induction Furnace	(12 MT X 1 No. furnace)	36000 TPA	(12 MT X 1 No. furnace)	36000 TPA	(12 MT X 2 Nos. furnace)	72000 TPA	*Additional 1 No. x 12 MT Induction furnace is installed but not operated till date for want of EC
2.	Sponge Iron Kiln	(2 X 100 TPD)	60000 TPA	-	-	(2 X 100 TPD)	60000 TPA	No Change
3.	WHRB Based Power Plant	3 MW X 2 Nos.	6 MW	-	-	3 MW X 2 Nos.	6 MW	No Change
4.	Biomass Based Power Plant	-	5 MW	-	-	-	5 MW	No Change
5.	Fly Ash Brick plant						25377 TPA	Implemented at adjoining plot

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

Sl.	Raw Material	Quantity required per annum (TPA)	Source	Distance from site (Kms)	Mode of transportation
1.	Sponge Iron	67000	Own production	0	-
2.	MS/CI Scrap	148000	From open market	100	By road through covered trucks
3.	Ferro Alloys	750	From open market	100	By road through covered trucks

Sl.	Raw Material	Quantity required per annum (TPA)	Source	Distance from site (Kms)	Mode of transportation
4.	Ramming Mass and Refractory lining	100	From open market	100	By road through covered trucks
5.	Iron ore	39360	Odisha iron ore mine and NMDC	300	By road through covered trucks
6.	Pallet	59040	Local Steel Plants	100	By road through covered trucks
7.	Coal	75895	SECL coal mines/ Coal India	300	By road through covered trucks
8.	Limestone/ dolomite	2118	Open market	100	By road through covered trucks
9.	Refractory material	107	Open market	100	By road through covered trucks
10.	Husk	40480	Locally available Rice Husk		Truck / Road Transportation
11.	Dolochar	13520	Own production	-	Internally Road Transportation (Use of Dolochar is proposed for captive consumption)
12.	Fly Ash, etc.	16548	Generated through Biomass based	-	-
13.	Gypsum and Cement	1629	Open market	100	
14.	Granulated Slag	7200	Generated through Induction furnace	-	-

23.2.10 The total water requirement will be 756 KLD which will be source from Chhattisgarh Ispat Bhumi Limited and the permission for the same has been obtained from Chhattisgarh Ispat Bhumi Limited Siltara Raipur (C.G) vide letter No. CIBL/2020-21/98 dated 26.10.2020.

23.2.11 Total Power requirement 7800 KVA (7.8 MW). Existing WHRB (6 MW) and biomass power generation capacity is 5 MW. Sanction for Grid Power is for 2800 KVA (2.8 MW) already in place. In addition to this, 2500 kVA DG sets kept as backup for ancillary activities.

23.2.12 Baseline Environmental Studies:

Period	Winter season (December 2019 – February 2020)
AAQ parameters at 8 Locations (min.and max)	• PM_{10} = 69 – 110.7 µg/m^3 • $PM_{2.5}$ = 16.1 – 43.1 µg/m^3 • SO_2 = 11.3 – 27.1 µg/m^3 • NO_2 = 12.2 – 31.2 µg/m^3 • CO = 0.277 - 0.428 mg/m^3 • Ozone = 10.3 – 21.9 µg/m^3 • NH_3 = 10.2 – 20.4 µg/m^3
Incremental GLC level	• PM_{10} = 0.54 µg/m^3 (Level at 1.7 km SSW and S Direction)

<table>
<tr><td></td><td>

$PM_{2.5}$ = 0.32 µg/m^3 (Level at 1.7 km SSW and S Direction)
SO_2 = 1.45 µg/m^3 (Level at 1.3 km SSW and S Direction)
NOx = 1.25 µg/m^3 (Level at 1.5 km SSW and S Direction)
CO (DG Set) = 2.38 µg/m^3 (1.0 km in SW direction)
CO Due to Traffic Movement CO is 3.21 µg/m^3

</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>

pH: 7.23-7.80,
Total Hardness: 268.73 - 705.05 mg/l,
Fluoride: 0.24 - 0.64 mg/l,
TDS: 503 - 977 mg/l,
Nitrate: 20.12 - 37.42 mg/l
Sulphate: 18.13 – 47.63 mg/l

</td></tr>
<tr><td>Surface water quality at 8 locations</td><td>pH: 7.12-7.82; DO: 6-6.4 mg/l; BOD: 3.64 – 14.40 mg/l and COD : 8.24 – 40.15 mg/; TDS: 395 - 481mg/l; Total Hardness: 170.26 - 197.19 mg/l.</td></tr>
<tr><td>Noise levels Leq. (Day and Night)</td><td>Noise levels at every station were within CECB standards.
Residential Area – 51.7 to 54.5 dBA for day time and 44.3 to 41.4 dBA for night time.
Commercial Area – 57.8 to 54.6 dBA for day time and 46.3 to 42.7 dBA for night time.
Silence Zone – 47.4 dBA to 49.6 dBA for day time and 35.8 dBA to 38.9 dBA for night time.
Industrial area – 68.3 to 62.1 dBA for day time and 59.7 to 50.3 dBA for night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>

Traffic study has been conducted at NH-200 which is approximately 2.2 km in SE from project site.
The raw material will be transported through road by covered trucks.
Transportation of raw material, fuel & finished product will be done 100% by road.
Existing PCU is 16746 PCU/day on NH 200 and existing level of service (LOS) is:

<table>
<tr><th>ROAD</th><th>V (VOLUME IN PCU/DAY)</th><th>C (CAPACITY IN PCU/DAY)</th><th>MODIFIED V/C RATIO</th><th>LOS</th></tr>
<tr><td>NH 200</td><td>16746</td><td>40000</td><td>0.41865</td><td>C</td></tr>
</table>

PCU load after proposed project will be 16746 (Existing) + 178 (Additional) PCU/day and level of service (LOS) will be:

<table>
<tr><th>ROAD</th><th>V (VOLUME IN PCU/DAY)</th><th>C (CAPACITY IN PCU/DAY)</th><th>MODIFIED V/C RATIO</th><th>LOS</th></tr>
<tr><td>NH 200</td><td>16924</td><td>40000</td><td>0.4231</td><td>C</td></tr>
</table>
** Note: Capacity as per **IRC: 64-1990** Guideline for capacity for roads.*

Conclusion: The LoS value from the proposed expansion is found to project be “Good” for highway which was earlier also “good”. So the load o total 57 truck or dumper trips/day will add insignificant
</td></tr>
</table>

	contribution on the carrying capacity of the concern roads. Hence it is concluded that it is not likely to have any significant adverse effect.
Flora and fauna	No Rare, Endangered, Endemic, or Threatened species observed within the study area.

23.2.13 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

Name of Solid Waste generated	**Qty (TPA)**	**Proposed Disposal Plan**
Char/ Dolochar	15800	Will be consume in own power plant.
Bottom and Flue Dust Ash	12180	Used in Brick making or Sold to Cement Plants for Iron Oxide supplementation.
Kiln Accretion and Refractory waste	480	Given to refractory recycling units.
End Cutting and mill scale	1951	End cutting will be used in own induction furnaces
Slag	8533	Slag will be sold to metal recovery units and thereby used in brick manufacturing unit
Refractory Waste	50	Given to refractory recycling units & also reused in own Induction furnace
Fly Ash generation from Rice Husk	7084	Used in Brick making.
Fly Ash generation from Dolochar	9464	Used in Brick making.

Hazardous Waste:

Type of Haz. Waste	**H. W. Category**	**Quantity**	**Disposal**
Waste Oil/Used Oil	5.1(as per HWM Sch. I)	3 KL/annum	Partly used for lubrication and will be stored in covered HDPE Drums & will be given to CECB approved vendors/authorized recycler

23.2.14 Public Consultation:

Details of advertisement given	The Times of India (English Newspaper) Dated 08.06.2021 Navbharat (Hindi Newspaper) Dated 08.06.2021
Date of public consultation	08.07.2021
Venue	CSIDC Bhavan Industrial Area Phase- II, Village – Siltara, District-Raipur District- Raipur (CG).
Presiding Officer	Additional District Magistrate, Raipur
Major issues raised	• Concern about employment to local, plantation along transportation route. • Concern about CSR activities, street lights, road, health camp, security of local • Concern about Industrial Training Institute, school development, school facilities and bus facilities to students • Concern about environmental pollution

Action plan as per MoEF&CC O.M. dated 30/09/2020:

Sr. No.	Particulars	Physical Status	Target of Implementation of Action Plan (Timeline)		Rs. (in lakhs)
			I Year	II Year	
1.	Adoption of village which includes activities of Solar Street Light Facilities 20 Nos. of street light Siltara and nearby villages	14 Nos. along Siltara to Munrethi road 08 Nos. along Siltara to Dhaneli road	Siltara & Munrethi We will started from **Timeline:** 1st Mar. 2023	Siltara & Dhaneli Road **Timeline:** 1st Oct. 2023	3.5
2.	Provision of running water facility in Siltara Primary School Toilet.	Provision of RCC Tank Pipeline upto toilet Repairing of Toilet	Siltara Primary School **Timeline:** 15th Mar. 2023	-	1.6
3.	Repairing of broken wall and Floor of Primary School, Vill- Dharsiwa	Size Approx. 100 Sq. ft.	-	Primary School, Vill- Dharsiwa **Timeline:** 1st Oct. 2023	3.0
4.	Plantation in and along the periphery of School 1. Gov. Primary School, Vill – Tanda 2. Gov. uchchatar Madhyamik shala, Vill- Tivraiya 3. Dau Poshan lal Uttar Madhyamik shala, Vill- parastarai	30 sapling (25 Nos. inside and 5 Nos. outside plantation) in each school Cost of Each Plant is Rs. 1000 (which includes Sapling cost - Rs.250/- (minimum Height 2 M) + Rs. 40/- Pit formation + Rs. 60 FYM + Rs. 50/- Bamboo and Sand Material + 600/- Tree Guard) = 30 x 3 x 1000 Rs. 45000	Village – Tanda & **Timeline:** Village – Tivraiya 15th Mar. 2023	Village – Parastarai **Timeline:** 15th Dec. 2023	0.9
				Total =	**9.0**

23.2.15 The capital cost of the proposed project is Rs. 180.9 Lakhs and the capital cost for environmental protection measures is proposed as Rs. 64 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 20 Lakhs. The employment generation from the proposed expansion project is 170. The details of cost for environmental protection measures is as follows:

Sr. No.	Activities	Cost (Rs. in Lakhs)	
		Capital	Recurring
1.	Air Pollution Control Measures Bag filters (additional installation), dust extraction systems, online monitor(additional installation), Movable Vacuum Cleaning System, Carbon Emission Studies, etc.	20	4
2.	Water and Wastewater (Sewage + Industrial) Management and Rain Water Harvesting	20	2
3.	Solid waste Management	3	1
4.	Noise Reduction Systems	2	1
5.	Occupational Health & Safety (Provision of PPE, Medical Examination)	5	1
6.	Greenbelt Development (Plantation and maintenance)	5	3
7.	Environmental Monitoring Program	-	8
8.	EMP for Socio-economic development (Capex) (Addressal of Public Consultation concerns)	9	-
	Total	**64**	**20**

Action Plan as per Comprehensive Environmental Pollution Index

Compliance status of conditions stipulated in mechanism for environmental management of critically and severely polluted areas and consideration of activities/ projects in such area in compliance to hon'ble NGT order dated 19/8/2019 (published on dtd. 23.08.2019) in the matter of O.A. No 1038/2018:

Env.	Mitigation Measures	Present Status	Compliance of conditions wrt NGT order dated 19/8/2019 (published on 23.08.2019) under OM 31st Oct. 2019
Air			
I.	Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants.	ESP and Bag filter is being already installed at process unit. The existing limit of emission as per consent is 50mg/Nm^3	The existing limit of emission as per valid consent is 50 mg/Nm^3 which will be further reduced to 30 mg/Nm^3 after expansion. We undertake that, conditions stipulated in CTE & CTO will be complied and emissions will be kept well within prescribed norms. Additional Budgetary provision for APCD is made Capex Rs. 20 Lakhs and Recurring Rs. 4 Lakhs
II.	CEMS may be installed in all large/medium red category industries (air polluting) and connected to SPCB and CPCB server.	**Online Continuous Emission Monitoring System – CEMS is already installed at DRI Kiln with WHRB and Biomass based power plant and it is being connected to CECB server.**	**CEMS will be installed at balance induction furnace within 60 days. Industry will submit CEMS stack as well as ambient air quality monitoring reports accordingly. Compliance reports will be submitted to regulatory authorities.** **Additional Budget for APCD** **Capital Rs. 20 Lakhs and Recurring Rs. 4 Lakhs**
III.	Effective fugitive emission control measures should be	Presently water sprinkling periodically	• Periodic maintenance of APCD and other equipment's.

Env.	Mitigation Measures	Present Status	Compliance of conditions wrt NGT order dated 19/8/2019 (published on 23.08.2019) under OM 31st Oct. 2019
	imposed in the process, transportation, packing etc.	carried out within plant premises. Green belt coverage is 0.392 Ha. (i.e.12.97%) Total trees 1000 nos. developed within plant premises.	• Covered stock yard will be provided for raw material storage. • Generated ash (Fuel biomass, rice husk) from power plant will be utilized for in house brick manufacturing unit. • Continuous water sprinkling system on approach roads. • All internal roads will be black topped. • Transportation of material will be carried out through covered trucks only. • The fugitive dust emission at generation & transfer points will be controlled by the use of dust extraction system installed at source. • As per ToR, total plant area is 3.023 Ha. (Plot no. 96 & 97), out of which green belt coverage is 0.392 Ha. (i.e.12.97%) and balance green belt area 0.846 Ha. (i.e. 27.99%) developed at adjoining plot which is also registered in the name company, 1.846 ha (Plot No. 94 & 95). Thus, total green belt will be within 1.238 Ha. i.e. 40.96%. Both the lease land, i.e., 3.023 ha (Plot No. 96 & 97) and 1.846 ha (Plot No. 94 & 95), are in the name of Sunil Sponge Private Ltd. under an agreement with CSIDC. (A Govt. of Chhattisgarh undertaking). As of date, 1000 trees have been planted within the plant premises, with an additional 2095 planned. Thus, the total plantation will be 3095 nos. • **The existing green belt includes 1000 nos. of plant whereas 2095 additional plantation will be completed by July'2023 end. Thus total plantation will be 3095 Nos. Survival rate of these plants above 90 % will be maintained.** Additional Budget Capital Rs. 20 Lakhs and Recurring Rs. 4 Lakhs
IV.	Transportation of materials by rail/ conveyor belt, wherever feasible.	The raw material required for the project is sponge iron, MS/CI scrap and Ferro Alloys are readily available within 100 KM radius and will be transported by road through covered trucks. Mundrethi to Siltara Road which is adjacent	• Restriction on use of vehicles more than 15 years old in the industry premises. • Regular checking of vehicular emission including PUC • Good traffic management will be maintained. 57 Trips per day required • Regular cleaning and water sprinkling of approach road will be carried out. • Plantation along both side of approach road.

Env.	Mitigation Measures	Present Status	Compliance of conditions wrt NGT order dated 19/8/2019 (published on 23.08.2019) under OM 31st Oct. 2019
		to site NE, NH-200 is 2.2 km in SE & NH – 6 Km in S. Bulk Material like Iron Ore; Coal carried out through Rail upto nearest railway siding at Mandhar or Raipur and thereby transported through covered truck by road up to the plant.	• All trucks moving between road to the plant site for transporting raw materials, solid waste & product shall be fully covered. • Use of BS – VI trucks will be preferred post regularisation.
V.	Encourage use of cleaner fuels (pet coke/ furnace oil/ LSHS may be avoided).	In existing plant, coal is utilized in Sponge Iron Plant and Rice Husk is utilized in Biomass based power plant. HSD used in DG set for emergency power supply.	• This being capacity expansion project of electric based Induction furnace (12 MT x 1) having capacity 36000 TPA. The total capacity of after expansion will be 72,000 TPA. • No coal required for this process • No coal based Reheating furnace activities is involved in project
VI.	Best Available Technology may be used. For example; usage of EAF/ SAF/ IF in place of Cupola furnace. Usage of Supercritical technology in place of sub-critical technology.	Coal based DRI Kiln technology is used for Sponge iron plant and Rice Husk is used in Biomass based power plant Induction furnaces for production of Billets.	• No cupola furnace is involved in the project. • Electric based induction furnace will be used for production of billets. Total capacity 72000 TPA (Total capacity after expansion). • Induction furnace is widely accepted for manufacturing of billets.
VII.	Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, Wherever feasible.	Green belt coverage is 0.392 Ha. (i.e.12.97%) Total trees 1000 nos. developed within plant premises.	• Total area of the plant is 7.47 Acres (3.023 Ha), out of which 1.21 Ha i.e. 40% instead of existing 33% green belt will be developed. • As per ToR, total plant area is 3.023 Ha. (Plot no. 96 & 97), out of which green belt coverage is 0.392 Ha. (i.e.12.97%) and balance green belt area 0.846 Ha. (i.e. 27.99%) developed at adjoining plot which is also registered in the name company, 1.846 ha (Plot No. 94 & 95). Thus, total green belt will be within 1.238 Ha. i.e. 40.96%. Both the lease land, i.e., 3.023 ha (Plot No. 96 & 97) and 1.846 ha (Plot No. 94 & 95), are in the name of Sunil Sponge Private Ltd. under an agreement with CSIDC. (A Govt. of Chhattisgarh undertaking). As of date, 1000 trees have been planted within the plant

Env.	Mitigation Measures	Present Status	Compliance of conditions wrt NGT order dated 19/8/2019 (published on 23.08.2019) under OM 31st Oct. 2019
			premises, with an additional 2095 planned. Thus, the total plantation will be 3095 nos. • Existing plant species observed at project site is Neem, Maharukh, Peltophorum, Bel, Neem, Cassia, Mango, etc • **The existing green belt includes 1000 nos. of plant whereas 2095 additional plantation will be completed by July'2023 end. Thus total plantation will be 3095 Nos. Survival rate of these plants above 90 % will be maintained.** **Budget:** Capital Rs. 5 Lakhs and Recurring Rs. 3 Lakhs
VIII.	Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.	--	Plantation under CER activities will be carried out in and around the peripheral Schools within study area - 1. Gov. Primary School, Vill – Tanda 2. Gov. uchchatar Madhyamik shala, Vill- Tivraiya 3. Dau Poshan lal Uttar Madhyamik shala, Vill- parastarai Village Tanda and Parastarai Budget Rs. 90,000/- Total budget of Rs. 9.0 Lakhs will be implemented towards Social And Infrastructure Development (CER) within a year.
IX.	Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to be widened, shall be prescribed as a condition.	--	The transportation of material is being carried out through Mundrethi to Siltara Road which is adjacent to site in NE direction. This road is connected to NH-200 is 2.2 km in SE & NH – 6 Km in S. 57 nos. (144 Trips) trucks per day are being/will be required to transport the total materials by road considering capacity of each truck is 21 Tons. As per traffic Impact assessment study results, observed that in both scenarios (with and without considering the trucks used for raw material and finished products transportation, the level of service (LOS) on NH-200 will be "C (0.4 to 0.6)" i.e Good in performance as per IRC:64-1990 standard.
Water			
I.	Reuse/recycle of treated wastewater, wherever feasible.	Implementation of ETP to treat Industrial Wastewater under planning. Domestic Wastewater – is being treated in septic tank followed by soak pit	**Industrial wastewater Treatment:** The existing total water requirement is 756 KLD. In order to reduce daily consumption of fresh water. Specific ETP (Cap. 150 KLD) treatment system will be provided. Thus, the treated trade effluent will be 135 KLD. Out of which 15 KLD used in brick manufacturing and dust suppression within the plant

Env.	Mitigation Measures	Present Status	Compliance of conditions wrt NGT order dated 19/8/2019 (published on 23.08.2019) under OM 31st Oct. 2019
			and remaining 120 KLD water will be recycled in process. **Domestic Wastewater Treatment:** About **6.5 KLD** treated domestic water through STP (Cap. 10 KLD) will be used in green belt development. Thus ZLD will be maintained. Proposed ETP – 150 KLD Proposed STP – 10 KLD Budget : Capital Cost Rs. 20 Lakhs and recurring Cost Rs. 2 Lakhs
II.	Continuous monitoring of effluent quality /quantity in large and medium Red Category Industries (water polluting).	At present not installed	Continuous effluent monitoring system will be installed as per CPCB guidelines after expansion. Budget : Capital Cost Rs. 20 Lakhs and recurring Cost Rs. 2 Lakhs
III.	A detailed water harvesting plan may be submitted by the project proponent	At present rain water are collected and used in process	• No ground water utilization in process. • Total quantum of Run-off available at Project site is 13,293.28 Cum/ Year. • To conserve water through groundwater recharge through rainwater harvesting structures will be carried out within plant premises. • 2 artificial recharge structures will be constructed in the project area for augmentation of ground water resources. • To enhance effectiveness of recharge we are suggesting Recharge pit with bore well structure. The details are as under: **Size of Recharge Pit Size:** 2m Length x 2.5m Width x 1.5 m depth **Structure:** Recharge pit Method with injection bore well **Cost:** **Construction Cost** 1,20,000/- Rs. (Approx.) **Maintenance Cost:** 20,000/- (Approx.)
IV.	Zero liquid discharge wherever techno - economically feasible.	-	**Industrial wastewater Treatment:** The existing total water requirement is 756 KLD. In order to reduced daily consumption of fresh water. Specific ETP (Cap. 150 KLD) treatment system will be provided. Thus, the treated trade effluent will be 135 KLD. Out of which 15 KLD will be used for brick manufacturing and dust suppression and remaining 120 KLD water will be recycle in process. Thus ZLD will be maintained.

Env.	Mitigation Measures	Present Status	Compliance of conditions wrt NGT order dated 19/8/2019 (published on 23.08.2019) under OM 31st Oct. 2019
V.	In case, domestic waste water generation is more than 10 KLD, the industry may install STP.	Domestic Wastewater – is being treated in septic tank followed by soak pit	**Domestic Wastewater Treatment:** • Although, the domestic wastewater generation is below 10 KLD. However, portable STP having capacity of 10 KLD will be implemented. • About **6.5 KLD** treated domestic water through STP (Cap. 10 KLD) will be used in green belt development. It is proposed to install 10 KLD STP based on MBBR technology.
Land			
I.	Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever, feasible for new projects.	Green belt coverage is 0.392 Ha. (i.e.12.97%) Total trees 1000 nos. developed within plant premises.	• Total area of the plant is 7.47 Acres (3.023 Ha), out of which 1.21 Ha i.e. 40% instead of existing 33% green belt will be developed. • As per ToR, total plant area is 3.023 Ha. (Plot no. 96 & 97), out of which green belt coverage is 0.392 Ha. (i.e.12.97%) and balance green belt area 0.846 Ha. (i.e. 27.99%) developed at adjoining plot which is also registered in the name company, 1.846 ha (Plot No. 94 & 95). Thus, total green belt will be within 1.238 Ha. i.e. 40.96%. Both the lease land, i.e., 3.023 ha (Plot No. 96 & 97) and 1.846 ha (Plot No. 94 & 95), are in the name of Sunil Sponge Private Ltd. under an agreement with CSIDC. (A Govt. of Chhattisgarh undertaking). As of date, 1000 trees have been planted within the plant premises, with an additional 2095 planned. Thus, the total plantation will be 3095 nos. • Existing plant species observed at project site is Neem, Maharukh, Peltophorum, Bel, Neem, Cassia, Mango, etc **Budget:** Capital Rs. 5 Lakhs and Recurring Rs. 3 Lakhs
II.	Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.	-	Plantation under CER activities will be carried out in and along the periphery of following School 1. Gov. Primary School, Vill – Tanda 2. Gov. uchchatar Madhyamik shala, Vill- Tivraiya 3. Dau Poshan lal Uttar Madhyamik shala, Vill- parastarai Village Tanda and Parastarai **Budget Rs. 90,000/-**
III.	Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated	• Generated Char/ Dolochar from existing DRI kiln sending outside the CFBC plant.	• Generated Char/ Dolochar from existing DRI kiln instead of sending outside CFBC power plant, it is proposed to dispose through captive consumption in biomass based power plant. • Bottom and Flue Dust Ash used in Brick making manufacturing unit.

Env.	Mitigation Measures	Present Status	Compliance of conditions wrt NGT order dated 19/8/2019 (published on 23.08.2019) under OM 31st Oct. 2019
	locations approved by SPCBs/ PCCs.	• Bottom and Flue Dust Ash used in Brick making or Sold to Cement Plants • Kiln Accretion and Refractory waste given to refractory recycling units. • End Cutting and mill scale will be used in own induction furnaces • Slag will be sold to metal recovery units and thereby used in brick manufacturing unit • Generated Ash is given to brick unit	• Kiln Accretion and Refractory waste given to refractory recycling units. • End Cutting and mill scale will be used in own induction furnaces • Slag will be sold to metal recovery units and thereby used in brick manufacturing unit
IV.	More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in co-processing.	No hazardous waste generation is being carried out except generation of Waste Oil/Used Oil 3 KL/annum **Management:** Partly used for lubrication and will be stored in covered HDPE Drums & will be given to CECB approved vendors/authorized recycler.	No additional Haz. Waste generation due to expansion of Induction furnace capacity
Other Conditions (Additional)			
I.	Monitoring of compliance of EC conditions may be submitted with 3rd party audit every year.	-	Monitoring of compliance of EC conditions will be carried out through MoEFCC - NABL accredited environmental labs and report will be submitted to CECB and RO - MoEFCC, Nagpur/Raipur.
II.	The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times	-	Complied. As per O.M. dated 01/05/2018 issued by MoEFCC, New Delhi. M/s. SSPL have to spend 1 % of proposed expansion cost of Rs. 180.90 lakhs as CER expenses. However, based on Public hearing outcomes, CER budget of Rs. 9 Lakhs will be spent, which is more

Env.	Mitigation Measures	Present Status	Compliance of conditions wrt NGT order dated 19/8/2019 (published on 23.08.2019) under OM 31st Oct. 2019
	for CPA in case of Environmental Clearance.		than 2 times the slabs given in the OM dated 01.05.2018.

23.2.16 As per ToR, total plant area is 3.023 Ha. (Plot no. 96 & 97), out of which green belt coverage is 0.392 Ha. (i.e.12.97%) and balance green belt area 0.846 Ha. (i.e. 27.99%) developed at adjoining plot which is also registered in the name company, 1.846 ha (Plot No. 94 & 95). Thus, total green belt will be within 1.238 Ha. i.e. 40.96%. Both the lease land, i.e., 3.023 ha (Plot No. 96 & 97) and 1.846 ha (Plot No. 94 & 95), are in the name of Sunil Sponge Private Ltd. under an agreement with CSIDC. (A Govt. of Chhattisgarh undertaking). As of date, 1000 trees have been planted within the plant premises, with an additional 2095 planned. Thus, the total plantation will be 3095 nos. Existing plant species observed at project site is Moha, Neem, Maharukh, Peltophorum, Bel, Neem, Cassia, Mango, etc.

23.2.17 **Summary of violation under EIA, 2006/ court case/ show cause/ direction related to the project:**

- M/s. Sunil Sponge Pvt. Ltd. (hereafter referred as SSPL) plant is under operation at Plot No 96-97 Siltara Phase II Industrial area, Village Siltara Tehsil and District Raipur, Chhattisgarh.
- M/s. SSPL was granted CTE for the first Sponge Iron Kiln on 10.09.2003 thereby granted CTO under water and air act on 27/07/2005 (present CTO Valid upto 30.06.2023). The company again obtained CTE and CTO for the second 100 TPD Sponge Iron Kiln of annual capacity 30000 TPA along with 12 MT IF, CTE was obtained on 07/04/2006, CTO on 06/07/2006. Both these CTE and CTO are obtained before EIA Notification 2006.

CAPACITY INSTALLED BEFORE EIA NOTIFICATION, 2006

Sl.	Description	Production Capacity with Configuration	CTE/CTO
1.	Sponge Iron Kiln to produce sponge iron from Coal based DRI kiln process from Iron Ore	30000 TPA* (100 TPD X 1 No.)	CTE 10/09/2003 CTO 27/07/2005
2.	➢ Sponge Iron Kiln to produce sponge iron from Coal based DRI kiln process from Iron Ore ➢ 12 MT Induction Furnace to produce 36000 TPA MS Billets	30000 TPA* (100 TPD X 1 No.) 36000 TPA (12 MT x 1 No.)	CTE on 07/04/2006 CTO on 06/07/2006
Note = **** The above capacity was installed based on valid CTE and CTO before EIA Notification 2006. Copies of CTO Submitted.***			

- The PP also had obtained CTE for WHRB 3 MW X 2 Nos. on 04/02/2010 and CTO granted on 20/06/2012. It is a clean technology process which does not require any fuel and is exempted from seeking EC. CTE for biomass based 5 MW power plant obtained on 06/03/2014 and CTO for the same was obtained on 07/09/2018.

CAPACITY INSTALLED AFTER EIA NOTIFICATION 2006
(NO EC REQUIRED FOR THE FOLLOWING CONFUGURATION & CAPACITY)

Sl.	Description	Production Capacity with Configuration	CTE/CTO
3.	WHRB	3 MW X 2 Nos.*	CTE 04/02/2010 CTO 20/06/2012
4.	Biomass based power plant	5 MW*	CTE on 06/03/2014 CTO 07.09.2018
Note = ***WHRB and Biomass Based Power Plant (5 MW) are exempted from EIA Notification 2006.***			

Based on above, Clubbed Consent to Operate was obtained from CECB vide letter No. 2317/TS/CECB/ 2020 Nava Raipur Atal Nagar, Dated: 27/06/2020 valid up to 30/06/2023 for following capacity:

- Sponge Iron (2 x 100 TPD DRI Kiln) - 60,000 TPA
- Waste Heat Recovery Based Power- Plant 06 MW
- Induction Furnace (12 T)
- Biomass Based Thermal Power Plant 05 MW

Remark - Thus from the above it is evident that the existing plant for following capacities is operating without any violation as per EIA Notification 2006:

Sl.	Description	Production Capacity with Configuration
1.	Sponge Iron Kiln to produce sponge iron from Coal based DRI kiln process from Iron Ore	30000 TPA (2 D X 1 No.)
2.	Sponge Iron Kiln to produce sponge iron from Coal based DRI kiln process from Iron Ore 12 MT Induction Furnace to produce 36000 TPA MS Billets	30000 TPA (100 TPD X 1 No.) 36000 TPA (12 MT x 1 No.)
3.	WHRB	3 MW X 2 Nos.
4.	Biomass based power plant	5 MW

<u>INDUCTION FURNACE UNDER VIOLATION</u>

- The PP applied to seek EC in 2015 but due to delays in preparation of EIA, the process of seeking EC was not completed.
- In the meantime, PP has installed another 12 MT induction Furnace in the year 2012 to produce another 36000 TPA Mild Steel Billets within the existing shed and plant premises by the side of existing 12 MT Induction Furnace. Due to ignorance the PP has implemented a 12 ton Induction furnace but never operated this furnace till today. This is the cause of violation and then applied to MoEFCC within window period, obtained TOR, completed PH process, complied all requirements as per prevalent EIA Notification requirements and presented the case as detailed above.
- In addition SEAC, CG letter dtd. 29/08/2017 revealed that proposed expansion of Induction Furnace capacity 36000 TPA to 72000 TPA is violation under the provision in EIA Notification, 2006, thus, the project proponent was advised to submit the application under violation case under the provision of MoEF&CC notification vide S.O. 804(E) dtd. 14/03/2017.
- Thus, the proposal was submitted to the Ministry for consideration in pursuance of the Ministry's Notification dated 14th March, 2017 due to violation of the EIA Notification, 2006 and ToR was granted by Expert Appraisal Committee (Violation Projects), MoEFCC, New Delhi. Terms of Reference (ToR) issued by Ministry of Environment and Forest & Climate Change, New Delhi vide letter no. F. no. 23-121/2018-IA.III(V) dtd. 18/07/2019.
- M/s. Sunil Sponge aims to compensate for environment damages due to installation of additional induction furnace. As per CPCB guidelines damages are calculated and budget is earmarked and remediation plan is proposed for Natural & Community resource augmentation.

DAMAGE ASSESSMENT AND REMEDIAL PLAN

Sl. No.	Causes of Pollution / Impact	Probable Impact	Remediation Plan (RP)	Actual Status	Actual damage
1.	**Environmental Attributes:** Air Pollution (Construction Phase only)				
	Air Emission from • Debris removal • Site preparation • Top soil Removal • General construction • Heavy machinery movement • D.G. Set • Construction material supply • Unloading materials like cement, sand paint, cans etc.	• On nearest habitation around 500m from the site • Increase in GLC SO2, NOx and particulate may lead to matter health issues to the nearby habitation	• Materials required for construction was stored only within earmarked area. • Temporary wind curtains were erected. • Earth work was done in discrete manner. • Regular water • Sprinkling was done at site. • Temporary dust and particulate matter controlling curtains were used covering the bounding of the site location.	• 2914 Sq. M • land used for erection of plant (consider only Melting Shop). • Barriers around the plant site to restrict dust, plantation around the site.	Increase in GLC of particulate matter estimated during construction.

Sl. No.	Causes of Pollution / Impact	Probable Impact	Remediation Plan (RP)	Actual Status	Actual damage
			• Covering of the top of vehicles carrying debris with sheet of tarpaulins was used.		
2.	**Environmental Attributes:** Water Environment (A. Surface Water)				
	• Generation of suspended solids in the storm water run-off during monsoon season • Waste water generation during construction • Washables construction materials.	• All structure water run off the site from the site lead to increase in suspended load in surface water bodies	• All existing drainages are provided with sediment traps to ensure sediment trapping • All sediment traps and storm drainage network are periodically cleaned • All washables construction material is stored under shed. • Rain water harvesting with sediment traps in the storage tanks	All drainages are properly maintained.	There may be a marginal increase suspended in total suspended solids.
3.	**Environmental Attributes:** (B.Ground water)				
	• Use of water during construction • Percolation of contaminated ground water near the site area.	• Contamination of ground water • Depletion of ground water level may result in water shortage in nearby villages or areas during dry seasons • Pumping of ground water while excavation and construction	• No ground water was used for construction water was made available from Ispat Bhoomi Vikash Nigam • Washable construction materials were stored in covered storages during construction	8 KLD water used for domestic purpose. 100 KL used for construction activities.	No appropriate changes in ground water quantity and quality nearby villages, as no ground water were used during construction.
4.	**Environmental Attributes:**(C. Rainwater Harvesting)				
	• Wastage of rain water into surface run off into storm water drains • Obstruction of rainwater percolation due to ground cementing	• Overflow of storm water drainage • Depletion of ground water level	• Desalting of temporary path for rain water to entire nearby storm water drainage pipes. • Provision of RW harvesting at other place of plant and Reuse of harvesting water through collection tanks	Provision has already been made for rain water harvesting.	• Avoiding groundwater recharge may lead to depletion of water in the aquifers • Damage can be reduced.
5.	**Environmental Attributes:**(D. Wastewater)				
	• Generated due to domestic use during construction activities • In proper collection & discharges • Mixing of wastewater to ground water, surface water • In proper sizing of	• Contamination of ground water and surface water by untreated sewage water leading to health issues to workers/ employee • Odour problems	• Provision of toilets has been already made. • Preventing open defecation in the vicinity of site	6 KLD sewage water generated and treated into septic tank followed by Soak pit	No waste water discharged into surroundings.

Sl. No.	Causes of Pollution / Impact	Probable Impact	Remediation Plan (RP)	Actual Status	Actual damage
	efficient treatment • Over flow of soak pit or septic tanks sludge from STP/ soak pit & septic tanks	• Water logging & mosquito nuisance • Soil contamination			
6.	**Environmental Attributes:** Land Environment				
	• Excavation of earth material • Generation of hazardous waste like empty cans of paints, fuel/oil • Land contamination due to spill of oil, paint varnishes, etc. during construction phase • Generation of construction solid wastes • Generation of excavated soil	• Change in land use/land cover of site • Change in topography & drainage pattern • Fugitive dust emission due to blowing of wind' • Unmanaged dumping • Soil erosion • Impaction productivity and fertility of soil • Contamination of surface water bodies due to run off from construction site during rain • Contamination of soil leaching may effect ground water quality and through run off surface water • Unmanaged disposal of solid waste /construction materials • Clearance of ground may lead to falling of trees present at the site.	• Sprinkling of water to reduce fugitive dust emission • Material storage under shed • Separate bins for onsite collection and segregation of domestic wastes • Filing of low lying area with construction wastes • Construction of storm water drain to divers storm water from flowing over the construction area • Storage of excavated soil in separate to place and preserve productive soil for plantation	• Melting shop having area 2914 Sq. M is constructed within the existing plant and area under possession for industrial use • Only shrubs and grasses were present at the site • No trees cut	Removal of soil due to excavation area – 2914 Sq.M. Total Excavation area = 8742 M^3 Earth material = 5100 M^3 Top Soil = 3642 M^3
7.	**Environmental Attributes:** Solid waste Management				
	• Dumping of solid waste to unauthorized site • Cross contamination of organic with plastic and other inorganic material	• Release of toxic material in land fill site • Percolation of complex land fill leachate to ground water • Odour nuisance	• Segregation of organic and inorganic at I source only • Treatment of organic waste via composting/vermi n composting • Handling over of plastic, metals and other non-desirable materials to authorized recyclers.	OWC is to be set up	Dumping of unsorted waste to land fill site road site and non-designated areas.
8.	**Environmental Attributes:** Hazardous waste				

Sl. No.	Causes of Pollution / Impact	Probable Impact	Remediation Plan (RP)	Actual Status	Actual damage
	• Empty containers of cement bags and additives being sold to authorized recycler paints, gas cylinder, welding rods etc.	• Likely hood of temporary impact on land and soil where the same would have been dumped as well as on the workers who handled the same	• Ensuring that such a happening does not reoccur and that the said containers are returned to the supplier or sold only to authorize recyclers.	This practice is available in the existing plant	Cross contamination of top soil and human health problem
9.	**Environmental Attributes:** Flora and Fauna (Biological Environment)				
	• Dust deposition on plantation • Removal of plantation • Displacement of fauna due to construction activities	• Vegetation present in the construction area needs to be removed • Vegetation available in the existing plant area gets affected due to air emission • Noise generated due to construction activities drive away the local fauna • Displacement of fauna	• Native floral species present at site are grasses and shrubs • Additional greenbelt has planned near and around the plant site • No major faunal species are present near the site except some reptiles and birds	Plantation and greenbelt is available in the existing plant	Damage to certain extent immediate vicinity of the greenbelt
10.	**Environmental Attributes:** Noise Environment				
	• Trucks and heavy machinery movement • Noise generation due to construction activities	• Various construction activities may lead to increase in ambient noise levels	• All the construction equipment and vehicles used in good working condition, properly lubricated and maintained to kept noise within the permissible limits/ acoustic enclosures of D.G. Sets	3 m height temporary barricade prepared along with the periphery of constructed area.	As per prediction there is no significant increase in noise level at the nearest settlement
11.	**Environmental Attributes:** Socio Economic				
	• Generating source of income • Inflow of people	• Air emission may lead to damage to the human health • Inflow of construction workers may increase load in local infrastructure	• Emission due to construction activities are confined with the plant boundary, No impact on human health anticipated • Periodic medical camps are organized for construction labours	• Approx. 20 construction workers involved in construction on daily basis	In flow of construction workers increase load on local infrastructures
12.	**Environmental Attributes:** Occupational Health				
	• Providing safety equipment (PPE), change	• Impact on health of the workers to	• A number of toilets were developed at	Company well lay down with	Not significant as provision of PPEs

Sl. No.	Causes of Pollution / Impact	Probable Impact	Remediation Plan (RP)	Actual Status	Actual damage
	rooms including drinking water facilities as well as bathrooms for the workers	some extent	site. • The construction workers are checked for their health once in every three months.	Occupational Health & Safety Policy.	
13.	**Environmental Attributes:** Energy Conservation				
	• Additional energy consumption • Power outage • Increase in high energy payment due to proposed expansion project	• Standby usage of DG set causes emission • Increase in carbon foot print	• As per industry rule	Extra Electricity consumption during construction	9000 units per month electric consumption

COST OF DAMAGE ASSESSMENT AND REMEDIAL MEASURES PROPOSED

Environmental Component		Scope of saving on account of environmental protection measures	Damage Cost (Lakh)	Remediation Plan Cost Consideration	RP Cost (Lakh)
Air Environment	Dust Suppression During construction period of 21 days	Water requirement for sprinkling (KL/day): 10 KL Cost of water (Rs): 10/KL (CSIDC charges)	0.03	Dust suppression and water sprinkling system consisted of 1. Water Sprinkler Nozzles 25 Nos. @ Rs. 2,000 / No. 2. Twin Filtration System; 1 No. @ Rs. 25,000 / No. 3. Pump; 1 No. @ Rs. 10,000 / No. 4. Water distribution Pipeline with fixtures & fittings - 250 RMT @ Rs. 200 / RM	**0.50** **0.25** **0.10** **0.50**
	Air Pollution (PM10)	A. Road Dust 8.30 gm/VKT (Considering VKT = 30 Km, Avg Vehicle Wt = 20 T, Vehicle played = 8/day) = 8.30*30*20*8*30 = 1195 kg (Reference: AP – 42) Rate @ 340/Kg (References: EEA 2020 and based on this various Damage assessment report submitted to MoEFCC, New Delhi by various organization) B. Emission of pollutant during construction = 0.60 T / Acre / Month (Taking EF as 50% of TSP @ 1.2 T/ Acre / Month)=0.86 T Taking PM10 as 30% of TSP, PM10 = 0.26 T (i.e. 260 Kg)	4.0 0.88		
Water Pollution		A. Total water quantity =108 KLD Cost of 1 KL water (Rs): 10 B. Cost of sewage treatment Construction phase = 1.0 lakh C. Quantity of water pumped out during excavation and a lumpsum cost of Rs. 50 per cum for such unauthorized water extraction and disposal = 0.5 lakh	0.23 1.0 0.5 2.0	Configuration at the Site - 1 Bore Well (Recharge Structure), 1 RWH Set of PVC Pipes, HDPE Filters, Valves etc. Thus, 1 Set @ Rs 1.50 Lakhs / Site 2 No. of RWH Pits X Rs.25,000 / Pit 10 CMD STP @	**1.5** **0.50** **10.0**

Environmental Component	Scope of saving on account of environmental protection measures	Damage Cost (Lakh)	Remediation Plan Cost Consideration	RP Cost (Lakh)
	D. Cost of construction& maintenance of recharge well = 2.0 lakh		Rs. 10 Lakhs / Unit.	
Soil Environment	Cost of preservation of top soil & excavated earth to be considered. [Area (m2) x depth (m) x cost per ton (Rs.)] Top Soil =3642 M3 @ 50/ Earth Material =5100 M3 @ 20/	1.8 1.0	Leachate/ erosion proof storage facility in designated area for top soil.	**1.0**
Noise & Vibration	For damage due to noise pollution & vibration, the cost of barricades around the project site should be considered. [perimeter (m) x height of the barricade(m) x cost of the sheet) 100 x 3 x 200	0.6	Development of Green Belt in and around the plant (Cost Covered in Biological Environment)	--
Green Belt	Cost of planting& maintaining trees (Number of trees as per the bye - laws) 33% of plant area = 970 Sq.M Number of Plants to be planted = 200 Rate @ 500/ Tree (Including digging hole, plantation cost + labour + maintenance)	1.0	500 Trees X Rs. 500/- (Tree Plantation)	**2.5**
OHS	A. cost of health checkup of workers: @ 1000 B. cost of safety measures including PPEs @ 2000	0.6	About 20 PPE Kits required for the persons working near noise prone areas. Cost of one Kit @ Rs. 1000/- Providing First Aid Kit (LS)	**0.20** **0.20**
Solid Waste	Workers x waste generation (kg/d) x no. of days x rate = 20 x 0.2 = 4 kg/d = 4 x 21 x 25	0.02	Total 10 Bins X Rs. 2,000/- per Bin OWC@ 1 lakh	**0.20** **1.0**
Energy	Extra Electric consumption 5000 units per Month @ Rs 5.50/- per unit	0.3	Provision of Solar light (LS)	**0.5**
Total Cost of Damage		**14.8**		**18.95**
Profit Actual				
a. Construction and erection of additional induction furnace Cap 36000 TPA installed, but not in operated. Hence profit incurred is nil.		**Nil**		

NATURAL AND COMMUNITY RESOURCES AUGMENTATION PLAN

Natural Resources Augmentation Plan along with Budget and action plan (Rs. In Lakhs)

Sr. No.	Proposed activities	Ist Year	IInd Year	IIIrd Year	Total
1	Provision of solar light in nearby schools (10 nos.)	0.50	0.50	0.50	1.50
3	Plantation along the road side of nearby villages and plant area (50 trees each year)	0.11	0.10	0.10	0.31
	Total	**0.61**	**0.60**	**0.60**	**1.81**
Community Resources Augmentation Plan along with Budget and action plan					
Sr. No.	**Activity to be carried out**	**Ist Year**	**IInd Year**	**IIIrd Year**	**Total**
1	Development of running water facilities in toilets in nearby villages (2 nos. each year) for boys and girls	0.3	0.3	0.3	0.9
2	Periodic arrangement of health check- up camp in nearby villages (one villages each year sixth monthly)	0.3	0.3	0.3	0.9
3	Provision of scholarship to the emerging talents from boys and girls of nearby villages education and empowerment of education	0.2	0.2	0.2	0.6
	Total	**0.8**	**0.8**	**0.8**	**2.4**

Thus Budget of ecological damage assessment remediation plan, Natural Community resources augmentation plan is as below:

Sr. No.	Aspects	Budgets (Rs in lakhs)
1	Estimated cost or remediation plan based on the damage assessment due to violation	18.95
2	Natural Resources augmentation plan for 3 years	1.81
3	Community Resources augmentation plan for 3 years	2.40
	Total	**23.16**

Certified Compliance report from Integrated Regional office MoEFCC

23.2.18 The existing plant is in operation as per valid CTO and copy of certified CTO compliance is obtained from RO, CECB, Raipur vide letter dated 10.11.2022. All the conditions of the CTO are compiled except the following for which project proponent have submitted an undertaking to CECB Raipur. PP has further submitted Notarized photo affidavit dated 15.02.2023 in order to comply with non-complied conditions along with timeline of implementation of CER Budget, 40% Green belt development and fulfilment of MoEFCC requirements to regularize violation case and issue of EC.

S. N. as per CTO	CTO Conditions	Reply of PP
6.	Industry shall increase the utilization of proportionate quantity of fly ash and ESP dust in brick making in such a way that proportionate quantity of solid waste i.e. ash, ESP dust used for land filling shall not increase from present quantity used for land application due to biomass based power plant. Daily record of solid wastes disposal shall be maintained and submitted to Chhattisgarh Environment Conservation Board every month regularly.	Fly ash generated from rice husk and dolochar is stored under covered area on pucca platform and used for Brick making. and utilized 100%. Industry has two Silos for ash storage having capacity 90 Ton and 75 Ton. **PP herewith undertake that, daily record of solid wastes generation and its disposal will be maintained and records will be submitted monthly to CECB.**
9.	Industry shall submit monitoring report of effluent regularly.	PP herewith undertake that effluent quality analysis report will be submitted to RO, CECB regularly.
11.	Industry shall submit environmental audit report audited by reputed Government Institution like IIT / NIT etc. of all the units within three month. **Note:** (Common consents condition under Water consent as per the Water(Prevention and Control of Pollution)Act,1974 and Air consent as per the Air (Prevention and Control of Pollution) Act, 1981)	PP herewith undertake that environmental audit will be conducted within six months and the report will be submitted to RO, CECB office.
12.	Industry shall submit report of compliance of the consent conditions every year to the Board prepared by third party. **Note:** (Common consents condition under Water consent as per the Water(Prevention and Control of Pollution)Act,1974 and Air consent as per the Air (Prevention and Control of Pollution) Act, 1981)	Certified Compliance Report is received from RO, CECB office as per Ltr. क्रमांक 2443/क्षेका/तक/छ. प. स. म. No. /2022 dt. 10/11/2022. PP herewith undertake that compliance of the consent conditions will be prepared through third party and will be submitted every year to Board.
4.	Industry shall install online Continuous Emission Monitoring System - CEMS in all the stack(s) of induction furnace within 06 months and celebration and data validation shall be carried out ensure availability of real time data in CECB/CPCB server of all CEMS. Industry shall submit stack and ambient air quality monitoring reports to the Board regularly.	PP herewith undertake that, online Continuous Emission Monitoring System - CEMS in all the stack(s) of induction furnace will be installed within six month and stack and ambient air quality monitoring reports will be submitted to RO, CECB regularly.

Written representations:

23.2.19 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 14.02.2023 through email dated 15.02.2023 submitted the following information:

S. No.	Comments/ Query	Reply by the PP
i.	Affidavit with photo for Non-compliances of CTO, PH compliance and fulfilment of MoEFCC requirements to regularize violation case and issue of EC.	Certified Compliance Report of earlier CTO is received as per Ltr. dt. 10/11/2022 from Regional Officer from Chhattisgarh Environment Conservation Board, Raipur. Site Inspection was conducted on Dt.03.11.2022. Notarized affidavit with photo in order to comply non-complied conditions along with timeline of implementation of CER Budget, 40% Green belt development and fulfilment of MoEFCC requirements to regularize violation case and issue of EC are provided in Annexure.
ii.	Revised Layout Plan showing existing and proposed green belt, road network with different colour code	PP has submitted revised layout plan with the updates as discussed during presentation.
iii.	Action plan should be revised and provided being project located in Critically Polluted Area.	PP has submitted the Action Plan as per comprehensive environmental pollution index and is updated at para 23.2.15 above.
iv.	Revised EC presentation should be submitted.	Revised EC presentation submitted by the project proponent.
v.	Revised brief summary about Violation Project	PP has submitted the Revised brief summary abouet Violation Project and is updated at para 23.2.17 above.

Deliberations by the Committee

23.2.20 The Committee noted the following:

1. The instant proposal is for installation of additional 12 MT Induction Furnace to produce 36,000 TPA MS Billets. Existing production capacity Sponge Iron: 2 X 100 TPD – 60,000 TPA, WHRB – 2 X 3 MW, Induction Furnace 12 MT – 36,000 TPA MS Billets and Biomass Based Power Plant – 5 MW.
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the

storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

5. The PP had obtained Consent to Establish from CECB on 10/09/2003 for establishment of 100 TPD X 1 Nos. Sponge Iron Kiln annual capacity 30000 TPA to produce sponge iron from Coal based DRI kiln process from Iron Ore. For this company has obtained Consent to Operate on 27/07/2005. Company had got another CTE on 07/04/2006 and Consent to Operate 06/07/2006 for second 100 TPD Kiln annual capacity 30000 TPA to produce sponge iron from Coal based DRI kiln process from Iron Ore along with 12 MT Induction Furnace to produce 36000 TPA MS Billets. The company had obtained Consent to Establish for WHRB 3 MW X 2 Nos. on 04/02/2010 and Consent to Operate granted on 20/06/2012. It is a clean technology process which does not require any fuel and is exempt from seeking EC. Consent to Establish for Biomass based 5 MW power plant obtained on 06/03/2014. The Biomass based power plant is established and Consent to Operate has obtained on 07.09.2018. The latest Clubbed Consent to Operate for the existing units was accorded by Chhattisgarh Environment Conservation Board vide CTO: No. 2317/TS/CECB/ 2020 Nava Raipur Atal Nagar, Dated: 27/06/2020 for Sponge Iron (2 x 100 TPD DRI Kiln) - 60,000 TPA, Waste Heat Recovery Based Power- Plant 06 MW, Induction Furnace (12 T) and Biomass Based Thermal Power Plant 5 MW. The validity of CTO is up to 30/06/2023.

6. PP further reported that the company installed another 12 MT induction Furnace in the year 2012 (without EC which attracts violation) to produce another 36000 TPA Mild Steel Billets within the existing shed and plant premises by the side of existing 12 MT Induction Furnace. Due to ignorance, the PP has implemented a 12 ton Induction furnace but never operated this furnace till today. This is the cause of Violation and then applied to MoEFCC within window period, obtained TOR, completed PH process, complied all requirements as per prevalent EIA Notification requirements and presented the case. In addition SEAC CG letter dtd. 29/08/2017 revealed that proposed expansion of Induction Furnace capacity 36000 TPA to 72000 TPA is violation under the provision in EIA Notification, 2006, thus, the project proponent was advised to file violation case under the provision of MoEF&CC notification vide S.O. 804(E) dtd. 14/03/2017. Thus, the proposal was submitted to the Ministry for consideration in pursuance of the Ministry's Notification dated 14th March, 2017 due to violation of the EIA Notification, 2006 and ToR was granted by Expert Appraisal Committee (Violation Projects), MoEFCC, New Delhi issued by the Ministry vide letter no. F. no. 23-121/2018-IA.III(V) dtd. 18/07/2019. In compliance to the ToR specific conditions related to violation, PP has submitted the damage assessment report and remediation plan including ecological damage assessment remediation plan, Natural Community resources augmentation plan which are detailed in para 23.2.17 above. The EAC deliberated on the same and found it satisfactory.

7. The EAC noted that the State Government/SPCB has not taken action against the project proponent under the provision of section 19 of the Environment (Protection) Act, 1986 in compliance to TOR condition. The EAC advised PP to approach State Government/SPCB for the case and comply with the condition. The EAC also advised that Ministry may also communicate to State Government/SPCB for expediting action against the project proponent under the provision of section 19 of the Environment (Protection) Act, 1986.

8. Total project land is 3.023 Ha land already acquired by M/s. Sunil Sponge Pvt. Ltd. The land is already diverted for industrial purpose. Lease agreement with CSIDC. (A Govt. of Chhattisgarh undertaking) has been made. There is no additional land required to be acquired by the company.
9. The nearest human settlement from the project site is Sondra at a distance of 1.7 km in the SSW direction. Also there is a patch of habitation adjacent to plant premises in SE direction.
10. Kharun River (2.4 km, WNW), Chhokra Nala (1.4 km, W) and Kulhan Nala (9.7 km, ENE) exists within the study area of 10 km from the project site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
11. The water requirement for the project is 756 KLD which will be sourced from Chhattisgarh Ispat Bhumi Limited.
12. As per ToR, total plant area is 3.023 Ha. (Plot no. 96 & 97), out of which green belt coverage is 0.392 Ha. (i.e.12.97%) and balance green belt area 0.846 Ha. (i.e. 27.99%) developed at adjoining plot which is also registered in the name company, 1.846 ha (Plot No. 94 & 95). Thus, total green belt will be within 1.238 Ha. i.e. 40.96%. Both the lease land, i.e., 3.023 ha (Plot No. 96 & 97) and 1.846 ha (Plot No. 94 & 95), are in the name of Sunil Sponge Private Ltd. under an agreement with CSIDC. (A Govt. of Chhattisgarh undertaking). As of date, 1000 trees have been planted within the plant premises, with an additional 2095 planned. Thus, the total plantation will be 3095 nos. PP has further committed vide affidavit dated 15.02.2023 that survival rate of these plants above 90% will be maintained. The EAC deliberated on the greenbelt action plan and found it satisfactory.
13. The Committee has found that the baseline data and incremental GLC due to the proposed project and observed that some of the parameters specifically PM10, Total hardness and TDS in ground water etc. are recorded beyond the standards. The project is located in CPA and PP has submitted a compliance of conditions w.r.t. NGT order dated 19/8/2019 (published on 23.08.2019) under O.M. dated 31st October, 2019 (CEPI Index) as detailed in para 23.2.15 above. The EAC deliberated on the compliance of conditions as per CEPI index and found it satisfactory. The EAC also advised PP to strictly comply with the conditions.
14. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
15. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
16. The EAC noted that the PP has installed Online Continuous Emission Monitoring System (CEMS) at DRI Kiln with WHRB and Biomass based power plant and it is being connected to CECB server. As reported by the PP the CEMS will be installed at balance induction furnace within 60 days. Industry will submit CEMS stack as well as ambient air quality monitoring reports accordingly. Compliance reports will be submitted to regulatory authorities.
17. The Committee deliberated upon the certified compliance report of IRO and action taken report submitted by PP with respect to the partial/non complied conditions along with the

photo affidavit dated 15.02.2023 to inter-alia comply with the partial/non complied conditions and is of the opinion that PP shall strictly comply with the all the conditions as per the submitted action plan.

18. The EAC deliberated on the written submission of project proponent and found it satisfactory.
19. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
20. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

23.2.21 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading of written submission and credible action under violation case on PARIVESH portal** under the provisions of EIA Notification, 2006 subject to stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements:

A. <u>Specific conditions:</u>

(i) The State Government/SPCB to take action against the project proponent under the provision of section 19 of the Environment (Protection) Act, 1986. PP shall also strictly comply with other ToR conditions related to violation.

(ii) The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(iii) The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(iv) The total amount of Rs. 23.16 Lakhs shall be spent on Remediation plan and Natural Resource Augmentation Plan and Community Resource Augmentation Plan which shall be implemented in three years as per the action plan details given in EIA Report and summarized below:

A. COST OF DAMAGE ASSESSMENT AND REMEDIAL MEASURES PROPOSED

Environmental Component		Scope of saving on account of environmental protection measures	Damage Cost (Lakh)	Remediation Plan Cost Consideration	RP Cost (Lakh)
Air Environment	Dust Suppression During construction period of 21 days	Water requirement for sprinkling (KL/day): 10 KL Cost of water (Rs): 10/KL (CSIDC charges)	0.03	Dust suppression and water sprinkling system consisted of 5. Water Sprinkler Nozzles 25 Nos. @ Rs. 2,000 / No. 6. Twin Filtration System; 1 No. @ Rs. 25,000 / No. 7. Pump; 1 No. @ Rs. 10,000 / No. 8. Water distribution Pipeline with fixtures & fittings - 250 RMT @ Rs. 200 / RM	**0.50** **0.25** **0.10** **0.50**
	Air Pollution (PM10)	A. Road Dust 8.30 gm/VKT (Considering VKT = 30 Km, Avg Vehicle Wt = 20 T, Vehicle played = 8/day) = 8.30*30*20*8*30 = 1195 kg (Reference: AP – 42) Rate @ 340/Kg (References: EEA 2020 and based on this various Damage assessment report submitted to MoEFCC, New Delhi by various organization) B. Emission of pollutant during construction = 0.60 T / Acre / Month (Taking EF as 50% of TSP @ 1.2 T/ Acre / Month)=0.86 T Taking PM10 as 30% of TSP, PM10 = 0.26 T (i.e. 260 Kg)	4.0 0.88		
Water Pollution		E. Total water quantity =108 KLD Cost of 1 KL water (Rs): 10 F. Cost of sewage treatment Construction phase = 1.0 lakh G. Quantity of water pumped out during excavation and a lumpsum cost of Rs. 50 per cum for such unauthorized water extraction and disposal = 0.5 lakh H. Cost of construction& maintenance of recharge well = 2.0 lakh	0.23 1.0 0.5 2.0	Configuration at the Site - 1 Bore Well (Recharge Structure), 1 RWH Set of PVC Pipes, HDPE Filters, Valves etc. Thus, 1 Set @ Rs 1.50 Lakhs / Site 2 No. of RWH Pits X Rs.25,000 / Pit 10 CMD STP @ Rs. 10 Lakhs / Unit.	**1.5** **0.50** **10.0**
Soil Environment		Cost of preservation of top soil & excavated earth to be considered. [Area (m2) x depth (m) x cost per ton (Rs.)] Top Soil =3642 M3 @ 50/ Earth Material =5100 M3 @ 20/	1.8 1.0	Leachate/ erosion proof storage facility in designated area for top soil.	**1.0**
Noise & Vibration		For damage due to noise pollution & vibration, the cost of barricades around the project site should be considered. [perimeter (m) x height of the barricade(m) x cost of the sheet) 100 x 3 x 200	0.6	Development of Green Belt in and around the plant (Cost Covered in Biological Environment)	--

Environmental Component	Scope of saving on account of environmental protection measures	Damage Cost (Lakh)	Remediation Plan Cost Consideration	RP Cost (Lakh)
Green Belt	Cost of planting& maintaining trees (Number of trees as per the bye - laws) 33% of plant area = 970 Sq.M Number of Plants to be planted = 200 Rate @ 500/ Tree (Including digging hole, plantation cost + labour + maintenance)	1.0	500 Trees X Rs. 500/- (Tree Plantation)	**2.5**
OHS	A. cost of health checkup of workers: @ 1000 B. cost of safety measures including PPEs @ 2000	0.6	About 20 PPE Kits required for the persons working near noise prone areas. Cost of one Kit @ Rs. 1000/- Providing First Aid Kit (LS)	**0.20** **0.20**
Solid Waste	Workers x waste generation (kg/d) x no. of days x rate = 20 x 0.2 = 4 kg/d = 4 x 21 x 25	0.02	Total 10 Bins X Rs. 2,000/- per Bin OWC@ 1 lakh	**0.20** **1.0**
Energy	Extra Electric consumption 5000 units per Month @ Rs 5.50/- per unit	0.3	Provision of Solar light (LS)	**0.5**
Total Cost of Damage		**14.8**		**18.95**
Profit Actual				
a. Construction and erection of additional induction furnace Cap 36000 TPA installed, but not in operated. Hence profit incurred is nil.		**Nil**		

B. NATURAL AND COMMUNITY RESOURCES AUGMENTATION PLAN

Natural Resources Augmentation Plan along with Budget and action plan (Rs. In Lakhs)					
Sr. No.	**Proposed activities**	**Ist Year**	**IInd Year**	**IIIrd Year**	**Total**
1	Provision of solar light in nearby schools (10 nos.)	0.50	0.50	0.50	1.50
3	Plantation along the road side of nearby villages and plant area (50 trees each year)	0.11	0.10	0.10	0.31
	Total	**0.61**	**0.60**	**0.60**	**1.81**
C. Community Resources Augmentation Plan along with Budget and action plan					
Sr. No.	**Activity to be carried out**	**Ist Year**	**IInd Year**	**IIIrd Year**	**Total**
1	Development of running water facilities in toilets in nearby villages (2 nos. each year) for boys and girls	0.3	0.3	0.3	0.9

2	Periodic arrangement of health check- up camp in nearby villages (one villages each year sixth monthly)	0.3	0.3	0.3	0.9
3	Provision of scholarship to the emerging talents from boys and girls of nearby villages education and empowerment of education	0.2	0.2	0.2	0.6
	Total	**0.8**	**0.8**	**0.8**	**2.4**

Table: Thus Budget of ecological damage assessment remediation plan, Natural Community resources augmentation plan is as below:

S. No.	Aspects	Budgets (Rs in lakhs)
1	Estimated cost or remediation plan based on the damage assessment due to violation	18.95
2	Natural Resources augmentation plan for 3 years	1.81
3	Community Resources augmentation plan for 3 years	2.40
	Total	**23.16**

(v) The project proponent shall submit a bank guarantee of an amount of Rs. 23.16 lakhs towards Remediation plan and Natural and Community Resource Augmentation plan with the SPCB prior to the grant of environmental clearance (EC) as per Notification dated 14.03.2017.

(vi) Project proponent shall ensure that the plan shall be completed in three years whereas the bank guarantee shall be for five years. The bank guarantee shall be released by the SPCB after successful implementation of Remediation plan, Natural Resource Augmentation Plan and Community Resource Augmentation plan.

(vii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(viii) The nearest human settlement from the project site Sondra at a distance of 1.7 km in the SSW direction. Also there is a patch of habitation adjacent to plant premises in SE direction. Project Proponent shall prepare and implement an action plan for environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include this location in its environmental monitoring programme.

(ix) Kharun River (2.4 km, WNW), Chhokra Nala (1.4 km, W) and Kulhan Nala (9.7 km, ENE) exists within the study area of 10 km from the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

(x) The water requirement of 756 KLD which shall be sourced from Chhattisgarh Ispat Bhumi Limited after obtaining necessary permission from the Competent Authority.

(xi) As committed, the company shall adopt nearby villages and formulate robust village Adoption program consisting of need-based community development activities, to develop them into model villages.

(xii) All the observations stated in the certified compliance report of CECB dated 10.11.2022 shall be complied with as committed. Compliance status in this regard, shall be submitted to concerned SPCB and Regional Office of the MoEF&CC.

(xiii) The CEMS shall be installed at balance induction furnace within 60 days. Industry will submit CEMS stack as well as ambient air quality monitoring reports accordingly.

(xiv) PP shall strictly comply with the CEPI conditions in pursuance to NGT order dated 19/8/2019 (published on 23.08.2019) under O.M. dated 31st October, 2019 as per the submitted action plan.

(xv) Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.

(xvi) Three tier Green Belt shall be developed in a atleast 40% of total project area in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. PP shall develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy along-with windshield inside the plant premises to act as green barrier for air pollution & noise levels towards Sondra village. 40% Green-belt shall be developed by Monsson season of 2023. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

(xvii) Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

(xviii) Solid waste utilization

- PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
- PP shall recycle/reuse solid waste generated in the plant as far as possible.
- Used refractories shall be recycled as far as possible.

(xix) Following additional arrangements to control fugitive dust shall be provided:

a. Fog / Mist Sprinklers at all on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
b. Proper covered vehicle shall be used while transport of materials.
c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.

(xx) Secondary fume extraction system shall be installed on converters of Steel Melting Shop.

(xxi) 85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil or Mixed BF/CO gas/Producer gas.

(xxii) Sensors for detecting carbon monoxide gas must be fitted at appropriate locations.

(xxiii) Dust emission from all the stacks shall be less than 30 mg/Nm^3.

(xxiv) Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, fixing the location of fire water tanks, separate power system for fire fighting, involvement of qualified and trained fire personnel, nearest fire station & time required to reach the proposed site shall be prepared and implemented.

(xxv) Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.

(xxvi) The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.

(xxvii) A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

(xxviii) All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

(xxix) Adequate number of Mobile Fog / Mist Sprinklers shall be commissioned at conveyors, on bulk raw material storage area/ transfer points like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas. This Fog/Mist sprinkling should also be facilitated to the surrounding villages on a periodic basis.

(xxx) The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

(xxxi) The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

B. <u>General conditions</u>

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as two Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

v. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.

vi. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.

vii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.

v. Tyre washing facilities shall be provided at the entrance of the plant gates.

vi. Water meters shall be provided at the inlet to all unit processes in the steel plants.

IV. Noise monitoring and prevention

i. Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.

VI. Waste management

i. Used refractories shall be recycled.

ii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

i. Green belt shall be developed in an area equal to 40% of the plant area with native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.

ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration by trees in the plant premises.

iii. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.

iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.

ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms /

conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

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

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

x. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also

put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

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

xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

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

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

***

Consideration of ToR

Agenda No. 22.3

23.3 Manufacturing of Re-Rolling Mill & Steel Melting furnace with 4 Lakhs Tons Per Annum by M/s Chennai United Metal Industries Private Limited, located at Plot No. 1842, 20th Main Road, Anna Nagar West Anna Nagar, Chennai – Consideration of TOR.

[Proposal No. IA/TN/IND1/409490/2022; File No. IA-J-11011/524/2022-IA-II(IND-I)] [Consultant: Eco Chem Sales and Services; Valid upto: 03.02.2023]

23.3.1 M/s. Chennai United metal Industries Private Limited has made an application online vide proposal no. IA/TN/INDI/409490/2022 dated 23.01.2023 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category "B1" of the schedule of the EIA Notification, 2006.

23.3.2 Name of the EIA consultant: M/s. Eco Chem Sales and Services [List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/RA 0181 valid till 03.02.2023, as on February 01, 2023].

Details submitted by Project proponent

23.3.3 The project of M/s. Chennai United Metal Industries Private Limited located in Sirupuzhalpettai, and Getnamalee Village, Gummidipoondi Tehsil, Tiruvallur District, Tamilnadu is for setting

up of a new Billets manufacturing production and existing unit rerolling mill of 4,00,000 Tons Per Annum (TPA).

23.3.4 The unit has been established in the year 2014 and was in operation with valid consent order from TNPCB. The existing project had obtained consent to operate for the rerolling mill with less production capacity which does not required EIA. Recently PP proposed to establish billets manufacturing unit and the CTE for the same has been obtained from TNPCB. Now PP has planned to increase the production quantity to 4 lakh Ton/Annum. Hence, PP has submitted the application for obtaining Environmental Clearance as per MoEF&CC Notification S.O 3250(E), dated: 20th July 2022. The last Consent to Operate for the existing unit (Re-Rolling mill Manufacturing Unit) was accorded by TamilNadu State Pollution Control Board vide lr. no. F.0211TLR/OL/AEE/TLR/2017, dated. 24/04/2017.

Deliberation by the Committee

23.3.5 The Committee noted the following:

i. The instant proposal is for for setting up of a new Billets manufacturing production and existing unit rerolling mill of 4 lakh Ton/Annum.

ii. The existing project had obtained consent to operate for the rerolling mill with less production capacity which does not required EIA. Recently PP proposed to establish billets manufacturing unit and the CTE for the same has been obtained from TNPCB. Now PP has planned to increase the production quantity to 4 lakh Ton/Annum. Hence, PP has submitted the application for obtaining Environmental Clearance.

iii. The EAC further noted that in pursuance to EIA Notification, 2006 and subsequent amendments thereof, proposal do not qualify to be appraised as Category 'A' at the central level and shall be appraised at the level of SEIAA.

iv. The EAC also observed that the validity of accreditation of the Consultant M/s. Eco Chem Sales and Services has expired on 03.02.2023 and the Consultant was unable to submit to the extended validity letter. The EAC warned the consultant to be careful in future.

v. The project proponent also accepted that there was a technical issue at the portal due to which the proposal has been submitted at the Central level.

Recommendations of the Committee

23.3.6 After deliberations, the Committee **returned the proposal in present form** and directed the PP to apply the proposal to SEIAA, Tamil Nadu for appraisal.

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Agenda No. 23.4

23.4 Integrated Steel Plant with Pelletization Plant (2 x 0.6 MTPA), DRI Plant (3 x 1,10,000 TPA), MS Billets production of 4,00,000 TPA with IF of 2 x 8 Tonnes and 1 x 15 Tonnes and EAF (2 x 25 tonnes), Rolling Mill (2,00,000 TPA) Coal Washery (0.576 MTPA) with 78 MW CPP (24 MW #WHRB and 54MW #AFBC) at Village- Lahandabud, P.O.- H. Kantapali, Tehsil & District-Jharsuguda, Odisha by M/s Thakur Prasad Sao and Sons Pvt. Ltd. - Consideration of TOR.

[Proposal No. IA/OR/IND1/414111/2023; File No. IA-J-11011/13/2023-IA-II(IND-I)]

23.4.1 M/s Thakur Prasad Sao and Sons Private Limited has made an online application vide proposal No. IA/OR/IND1/414111/2023, dated 25.01.2023 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) 1(d) Thermal Power Plant and 2(a) Coal Washery under Category "A" of the schedule of the EIA Notification, 2006 and attracts general condition "Project site falling under critical polluted area" due to which it will be appraised at Central Level.

23.4.2 Name of the EIA consultant: M/s. Grass Roots Research & Creation India (P) Ltd. [List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2124/RA 0213 valid till 15.02.2024, as on February 16, 2023].

Details submitted by Project proponent

23.4.3 The project of M/s Thakur Prasad Sao and Sons Private Limited located in Village- Lahandabud, P.O.- H. Kantapali, Tehsil-Jharsuguda, District-Jharsuguda, Odisha is for setting of Integrated Steel plant with facilities of Iron Ore Pelletization Plant (2 x 0.6 MTPA), DRI Plant (3 x 1,10,000 TPA), MS Billets production of 4,00,000 TPA with IF of 2 x 8 tonnes and 1 x 15 tonnes and Electric Arc Furnace (2 x 25 tonnes), Rolling Mill (2,00,000 TPA) Coal Washery (0.576 MTPA) with 78 MW CPP (24 MW #WHRB and 54MW #AFBC).

23.4.4 Environmental site settings:

<table>
<tr><th>S. No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>1</td><td>Total Land</td><td>72.04 ha [Private]</td><td>Land use: Industrial Land</td></tr>
<tr><td>2</td><td>Land acquisition details as per MoEF&CC O.M dated 7/10/2014</td><td>Entire land of 72.04 ha is under the possession of proponent.</td><td></td></tr>
<tr><td>3</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Nil</td><td></td></tr>
<tr><td>4</td><td>Latitude and Longitude of the project site</td><td><table><tr><th>S.No</th><th>Latitude</th><th>Longitude</th></tr><tr><td>1</td><td>21°54'9.39"N</td><td>83°59'16.18"E</td></tr></table></td><td></td></tr>
</table>

<table>
<tr><th>S. No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>2</td><td>21°54'12.26"N</td><td>83°59'16.08"E</td></tr>
<tr><td>3</td><td>21°54'18.85"N</td><td>83°59'2.89"E</td></tr>
<tr><td>4</td><td>21°54'18.09"N</td><td>83°58'44"E</td></tr>
<tr><td>5</td><td>21°54'13.42"N</td><td>83°58'50.69"E</td></tr>
<tr><td>6</td><td>21°54'12.89"N</td><td>83°58'51.42"E</td></tr>
<tr><td>7</td><td>21°54'10.19"N</td><td>83°58'48.72"E</td></tr>
<tr><td>8</td><td>21°54'9.45"N</td><td>83°58'51.31"E</td></tr>
<tr><td>9</td><td>21°54'6.97"N</td><td>83°58'47.74"E</td></tr>
<tr><td>10</td><td>21°54'6.01"N</td><td>83°58'51.00"E</td></tr>
<tr><td>11</td><td>21°54'3.36"N</td><td>83°58'46.85"E</td></tr>
<tr><td>12</td><td>21°53'49.22"N</td><td>83°58'52.93"E</td></tr>
<tr><td>13</td><td>21°53'46.96"N</td><td>83°58'55.58"E</td></tr>
<tr><td>14</td><td>21°53'45.38"N</td><td>83°58'56.03"E</td></tr>
<tr><td>15</td><td>21°53'49.46"N</td><td>83°59'17.39"E</td></tr>
<tr><td>16</td><td>21°53'51.53"N</td><td>83°59'19.98"E</td></tr>
<tr><td>17</td><td>21°54'5.53"N</td><td>83°59'20.28"E</td></tr>
</table>
</td><td></td></tr>
<tr><td>5</td><td>Elevation of the project site</td><td>205 Meter above the sea level</td><td></td></tr>
<tr><td>6</td><td>Involvement of Forest land if any.</td><td>Nil</td><td></td></tr>
<tr><td>7</td><td>Water body exists within the project site as well as study area</td><td>Project Site – Nil
Study Area
<table>
<tr><td>Water Body</td><td>Distance</td><td>Direction</td></tr>
<tr><td>Ibi River</td><td>0.05 km</td><td>N</td></tr>
<tr><td>Funleela water park</td><td>0.33 km</td><td>W</td></tr>
<tr><td>Basundhara Naala</td><td>4 km</td><td>W</td></tr>
<tr><td>Sapai River</td><td>8.5 km</td><td>NE</td></tr>
<tr><td>Bhedan River</td><td>9.4 km</td><td>NW</td></tr>
</table>
</td><td></td></tr>
<tr><td>8</td><td>Existence of ESZ / ESA/national park /wildlife sanctuary /biosphere reserve /tiger reserve /elephant reserve etc. if any within the study area</td><td>Nil</td><td></td></tr>
</table>

23.4.5 Details of existing project/ permissions:

- Steel plant was established by M/s Eastern Steel private limited with facilities of 350 TPD DRI plant, 4 x 8 tonnes IF, 2 x 15 tonnes LRF, CPP (8 MW WHRB+4 MW AFBC), 150 TPH Coal Washery (576000 TPA), and TMT/Wire Rod Mill (100000 TPA), for which CTO from State Pollution Control Board was obtained vide letter no. 1534/Ind-II-NOC-3474 dtd. 27.01.2006.
- Expansion was proposed in the steel plant by addition of 2 x 1,10,000 TPA DRI Kiln, 2 x 25 tonne LRF, 1 x 2 & 1 x 3 strand compatible CCM, 2 x 157 m3 Mini Blast Furnace, 2x8 MW CPP (WHRB), 3x 25 tonne Electric Arc Furnace producing 400000 TPA of crude steel,

150 TPH Coal Washery suitable for 576000 TPA capacity, 1x50 MW Fluidized Bed boiler, and 2,00,000 TPA TMT/Wire Rod Mill for which environment clearance was obtained from MoEF&CC vide File No. J-11011/525/2007-IA.II.I dated 22.02.2008.

- Meanwhile the plant was acquired by M/s Thakur Prasad Sao and Sons Private Limited.
- Further expansion and modification was proposed by the company for installation of 2 x 0.6 MTPA Iron ore Pelletisation Plant with deletion of Mini Blast Furnace and 1 x 25 tonnes Electric Arc Furnace for which EC was granted by MoEF&CC vide File No. J-11011/48/2012-IA-II(I), dated 26.09.2012 under Para 7(II) of EIA Notification, 2006 as recorded in the Minustes of 36th Meeting of EAC (Industry-1) held during 24-25th May, 2012.
- The company applied for re-configuration of 2 x 8 tonnes IF into 1 x 15 tonnes IF to the State Pollution Control Board, Odisha. The approval for this re-configuration was granted by the SPCB Odisha vide letter no. 8366/IND-II-NOC-6384 dated 07.09.2020.
- Project proponent was unable to complete the project due to some unavoidable reasons and financial issues and project could not get completed within the validity period of earlier granted environment clearance and approx. 55% of the construction work was completed at the project site as per the granted EC within validity period of EC. Hence, **PP is applying for revalidation as per Notification of MoEF&CC vide S.O 1247(E) dated 18th March 2021dated and clause 7(i) (x) of EIA Notification 2006 as amended and has requested for exemption of Public Hearing**.
- Consent to Operate for the operational unit was accorded by Odisha State Pollution Control Board vide lr. No 4372/IND-I-CON-5429 dated 22.03.2022. The validity of CTO is up to 31.03.2024.

23.4.6 Implementation status of the existing EC:

Sl.No.	Facilities	Units	Capacity As per EC Dated 26.09.2012	Implementation Status as on date	Production as per CTO
1.	Iron Ore Pelletisation Plant	2 x 0.6 MTPA	12,00,000 TPA	Construction not started yet	--
2.	**SMS Unit**				
	Induction Furnace	4 x 8 Tonnes	4,00,000 TPA	Plant fully Operational (2 furnaces of 8 tonnes replaced by 15 tonnes furnace, Permission obtained)	1,00,000 TPA
	Electric Arc Furnace	2 x 25 Tonnes		Construction not started yet	
	Ladle Refinning Furnace	2 x 15 and 2 x 25 tonnes		2 x 15 tonnes operational	
	Continuous Casting Machine	2 x 2 and 1 x 3 strand		Operational	

3.	TMT/Wire Rod Mill	2,00,000 TPA	2,00,000 TPA	1,00,000 TPA Operational	1,00,000 TPA
4.	Captive Power Plant				
	WHRB	24 MW	24 MW	8 MW Operational	8 MW
	AFBC	54 MW	54 MW	4 MW Operational	4 MW
5.	Coal Washery	150 TPH	576000 TPA	Operational	576000 TPA

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

S.No.	Plant Equipment/ Facility	Existing Facility as per EC dated 26.09.2012							
		Total		Implemented		Unimplemented		As per CTO	
		Config.	Cap.	Config.	Cap.	Config.	Cap.	Config.	Cap.
1.	Iron Ore Palletisation Plant	2 x 0.6 MTPA	2 x 0.6 MTPA	Not implemented		2 x 0.6 MTPA	2 x 0.6 MTPA	-	-
2.	SMS Unit								
	Induction Furnace	4 x 8 tonnes	4,00,000 TPA	2 x 8 and 2 x 15 tonnes	1,00,000 TPA	Complete plant operational	3,00,000 TPA	2 x 8 and 2 x 15 tonnes	3,00,000 TPA
	Electric Arc Furnace	2 x 25 tonnes		--		2 x 25 tonnes		--	
	Ladle Refining Furnace	2 x 25 & 2 x 15 tonnes		2 x 15 tonnes		2 x 25 tonnes		2 x 15 tonnes	
	Continuous Casting Machine	2 x 2 and 2 x 3 strand		2 x 2 and 2 x 3 strand		--		2 x 2 and 2 x 3 strand	
3.	Rolling Mill	2,00,000 TPA	2,00,000 TPA	1,00,000 TPA	1,00,000 TPA	1,00,000 TPA	1,00,000 TPA	1,00,000 TPA	1,00,000 TPA
4.	Captive Power Plant								
	WHRB	24 MW	24 MW	8 MW	8 MW	16 MW	16 MW	8 MW	8 MW
	AFBC	54 MW	54 MW	4 MW	4 MW	50 MW	50 MW	4 MW	4 MW
5.	Coal Washery	150 TPH	5,76,000 TPA	150 TPH	5,76,000 TPA	--	--	150 TPH	5,76,000 TPA

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

Raw Material details for Palletisation Plant

Sl. No.	Raw Material	Quantity (TPA)	Source	Distance (w.r.t. Plant)	Mode of transport
1.	Iron ore Fines	12,60,000	Nearby mines	Between 300 to 350 km	Through Rail /Road
2.	Return Fines	61,200	Pallet plant	--	Conveyer Belt
3.	Bentonite	8,040	Local Market	Between 20 – 40 km.	Rail route / by road
4.	Coal-250 Microns	19,800	Local Market	Between 20 – 40 km	Road through covered trucks

Sl. No.	Raw Material	Quantity (TPA)	Source	Distance (w.r.t. Plant)	Mode of transport
5.	Limestone	12,300	Local Market	Between 20 – 40 km	Road through covered trucks
6.	Organic Binder	300	Local Market	Between 20 – 40 km	Road through covered trucks

Raw Material details for DRI Plant

Sl. No.	Raw Material	Quantity (TPA)	Source	Distance (w.r.t. Plant)	Mode of transport
1.	Iron Ore Pellet	4,95,000	From Palletisation Plant	--	Through Conveyer belt
2.	Indian Coal	2,97,000	Local Market	20-30 km	Road through covered trucks
3.	Dolomite	19,800	Local purchase	20-30 km	Road through covered trucks

Raw Material details for Induction Furnace

Sl. No.	Raw Material	Quantity (TPA)	Source	Distance (w.r.t. Plant)	Mode of transport
1.	Sponge Iron	88,000	In House production	--	Conveyer Belt
2.	Scrap	36,220	Outsourced/ Local	20-30 km	Road through covered trucks
3.	Ferro Alloys	810	Local	20-30 km	Road through covered trucks

Raw Material Details for Electric Arc Furnace

Sl. No.	Raw Material	Quantity (TPA)	Source	Distance (w.r.t. Plant)	Mode of transport
1.	Sponge Iron (In House)	2,48,400	In House production	By Conveyer Belt	--
2.	Sponge Iron (Purchased)	95,680	Local Market	By Roads through covered trucks	20-30 km
3.	Pig Iron	62,500	Local Market	By Roads through covered trucks	20-30 km
4.	Scrap	20,200	Local Market	By Roads through covered trucks	20-30 km
5.	Flux	18,200	Local Market	By Roads through covered trucks	20-30 km

Sl. No.	Raw Material	Quantity (TPA)	Source	Distance (w.r.t. Plant)	Mode of transport
6.	Dolomite	9,030	Local Market	By Roads through covered trucks	20-30 km
7.	Electrode	1,440	Local Market	By Roads through covered trucks	20-30 km

Raw Material Details for Ladle Refining Furnace

Sl. No.	Raw Material	Quantity (TPA)	Source	Distance (w.r.t. Plant)	Mode of transport
1.	Liquid Steel From IF	1,00,000	In House Production	By Conveyer Belt	--
2.	Liquid Steel from EAF	3,00,000	In House Production	By Conveyer Belt	--
3.	Ferro Alloy	37,051	Local Market	By Roads through covered trucks	20-30 km
4.	Flux - Calcined lime	4,975	Local Market	By Roads through covered trucks	20-30 km
5.	Electrode	420	Local Market	By Roads through covered trucks	20-30 km

Raw Material Details for Billet Production

Sl. No.	Raw Material	Quantity (TPA)	Source	Distance (w.r.t. Plant)	Mode of transport
1.	LRF Refined Liquid Steel	400000	In House production	By Conveyer Belt	--

Raw Material Details for Rolling Mill

S.No	Name	Quantity (TPA)	Source	Transportation	Distance w.r.t Project Site
1	Billets	2,06,200	In House production	Conveyer Belt	-

Raw Material Details for Coal Washery

S.No	Name	Quantity (TPA)	Source	Transportation	Distance w.r.t Project Site
1	Raw Coal	5,76,000	Local Market	By Road through Covered Truck	20-30 km

Raw Material Details for Power Plant

A	**WHRB**

	Hot Flue Gases	87,000 Nm^3/hr. from 350 TPD DRI kiln		
	Hot Flue Gases	87,000 Nm^3/hr. from 350 TPD DRI kiln		
	Hot Flue Gases	87,000 Nm^3/hr. from 350 TPD DRI kiln		
B.	**AFBC**			
	ITEM	**COMPOSITION / UNIT**	**Source**	**Transportation**
	DOLOCHAR (CV – 1300 kCal/kg)	254280	DRI Plant	Conveyer belt
	COAL FINES (CV – 2100 kCal/kg)	127140	Coal Handling Unit	Conveyer belt
	COAL (CV – 3200 kCal/kg)	254800	Local Market	By Roads

23.4.9 The total water requirement for the project is estimated as 16116 m^3/day. For operational units water is sourced from Ib river and same will be followed for units under construction.

23.4.10 The total power requirement for the project is 78 MW which will be obtained from In house CPP. Power requirement of 12 MW for operational units is obtained from operational Co generation power plant of 12 MW.

23.4.11 The capital cost of the project is Rs 379.56 Cr and the capital cost for environmental protection measures is proposed as INR 18.5 Cr. The total annual recurring cost towards the environmental protection measures is proposed as Rs 4.5 Cr. The employment generation from the project is 657.

23.4.12 It is submitted that there is no violation under EIA notification 2006/no court cases/no show cause/no direction related to the project under consideration.

23.4.13 Proposed Terms of Reference: [Baseline data collection period: Dec-22 to Feb 22]

S.No.	**Attributes**	**Parameters**	**Sampling**		**Remarks**
			No. of stations	**Frequency**	
A.	**Air**				
a.	Meterological Parameters	Temperature, Relative Humidity, Wind Speed, Wind Direction, Rainfall	01 (Plant Site	Twice a week (24 hourly)	-
b.	AAQ Parameters	PM_{10}, $PM_{2.5}$, SO_2, NO_2, CO and other applicable	08	Hourly	-

S.No.	Attributes	Parameters	Sampling		Remarks
			No. of stations	Frequency	
		parameters as per ToR			
B.	**Noise**	Equivalent noise levels in Leq in dB(A)	08	Once in a season(Day & Night)	-
C.	**Water**				
a.	Surface Water	Parameters as per IS 10500 - 2012	08	Once in a season	-
b.	Ground Water	08	08	Once in a season	-
D.	**Land**				
a.	Soil Quality	Parameters As per IS 2720/USDA	05	Once in a season	-
b.	Land Use	Agriculture, Habitation, Industry, Stony waste/ Quarries, Forest area, Plantation/ Vegetation, Open scrub, Water bodies etc.	10 km radius, Buffer from Project site (Core zone)	Once in a Study period Season	-
E.	**Biological**				
a.	Aquatic	Flora and fauna	Study area	Study area	-
b.	Terrestrial	Flora and fauna	Study area	Study area	-
F.	**Socio-economic parameters**	Economic Demography	Study area	Study area	-

Written representations:

23.4.14 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 15.02.2023 through email dated 15.02.2023 and 20.02.2023 submitted the following information:

Sn.	Information sought	Reply
1.	PP should submit the report certified by CA for more than 50 percent of the construction,	CA Certificate dated 15.02.2023 is submitted by the project proponent which states the following:

Sn.	Information sought	Reply

	which has been completed w.r.t. facilities mentioned in earlier granted EC letters vide File no. J- 11011/525/2007-IA-II (I) dated 22.02.2008 and File No. J-11011/48/2012-IA-II (I) dated 26.09.2012.	• As per the information and documents produced to them, it is certified that the construction of aforesaid integrated steel plant is completed to the 55 percent as per EC granted by MoEFF&CC vide letter No. J-11011/525/2007-1A.(I1).() dated 22.02.2008 and J-11011/48/2012-IA-II (1) dated 26.09.2012. The construction status of steel plant is given below:
		  ◦ Sponge Iron Plant - About 60%
		  ◦ MS Billets (IF/EAF/LRF/CCM) – About 50%
		  ◦ WHRB - About 60%
		  ◦ AFBC Boiler - About 46%
		  ◦ Rolling Mill - About 70%
		  ◦ Coal Washery – 100% completed.
		• The total investment as per the Audited Financial Statement as on 31.03.2022 in the entity "Thakur Prasad Sao & Sons Pvt. Ltd." comprising of all plants/branches is Rs 333.11 Crores in which an amount of Rs. 226.34 Crores represent investment pertaining to plant Unit-1V situated at Village-Lahandabud, P.O. H. Kantapali, Tehsil-Jharsuguda, District-Jharsuguda, Odisha.
		• **The above invested amount i.e. Rs 226.34 Crores is approximately 59% against the total project cost of Rs. 379.56 Crores.**

2.	PP should submit an affidavit that more than 50 percent of construction work w.r.t. earlier granted EC letters vide File no. J-11011/525/2007-IA-Il(I) dated 22.02.2008 and File No. J- 11011/48/2012-IA-II(I) dated 26.09.2012 has been completed along with balance sheet.	Affidavit dated 15.02.2023 for 55% percent construction completion as per EC dated 22.02.2008 and 26.09.2012 is submitted.
3.	PP should obtain NOC from irrigation department as lb river is within 500m of the project site.	PP has submitted the request letter dated 14.02.2023 for NOC to office of Executive Engineer, Minor Irrigation Department, Jharsuguda. Receiving copy of Application is submitted. PP will submit the final NOC with Final EIA/EMP report.
4.	PP should provide the current commissioning status of Pelletization plant	Pellet plant is not stand-alone unit and it's part of integrated steel plant. **Construction of the pelletization plant has not started yet.** However, Letter of intent has already been issued for setting up the proposed pelletization plant to M/s. Mineral and Metal Technologies. Copy of LOI us submitted. An advance payment of Rs. 33 Lakhs has been paid for basic engineering services on 14.02.2012 and Rs.

Sn.	Information sought	Reply
		35 Lakh on 19.04.2012 for detailed engineering services to M/s. Mineral and Metal Technolgies. Account ledger is submitted.

Deliberation by the Committee

23.4.15 The Committee noted the following:

i. The instant proposal is for setting of Integrated Steel plant with facilities of Iron Ore Pelletization Plant (2 x 0.6 MTPA), DRI Plant (3 x 1,10,000 TPA), MS Billets production of 4,00,000 TPA with IF of 2 x 8 tonnes and 1 x 15 tonnes and Electric Arc Furnace (2 x 25 tonnes), Rolling Mill (2,00,000 TPA) Coal Washery (0.576 MTPA) with 78 MW CPP (24 MW #WHRB and 54MW #AFBC).

ii. The EAC noted the following with respect to the instant proposal:

- Steel plant was established by M/s Eastern Steel private limited with facilities of 350 TPD DRI plant, 4 x 8 tonnes IF, 2 x 15 tonnes LRF, CPP (8 MW WHRB+4 MW AFBC), 150 TPH Coal Washery (576000 TPA), and TMT/Wire Rod Mill (100000 TPA), for which CTO from State Pollution Control Board was obtained vide letter no. 1534/Ind-II-NOC-3474 dtd. 27.01.2006.
- Expansion was proposed in the steel plant by addition of 2 x 1,10,000 TPA DRI Kiln, 2 x 25 tonne LRF, 1 x 2 & 1 x 3 strand compatible CCM, 2 x 157 m3 Mini Blast Furnace, 2x8 MW CPP (WHRB), 3x 25 tonne Electric Arc Furnace producing 400000 TPA of crude steel, 150 TPH Coal Washery suitable for 576000 TPA capacity, 1x50 MW Fluidized Bed boiler, and 2,00,000 TPA TMT/Wire Rod Mill for which environment clearance was obtained from MoEF&CC vide File No. J-11011/525/2007-IA.II.I dated 22.02.2008.
- Meanwhile the plant was acquired by M/s Thakur Prasad Sao and Sons Private Limited.
- Further expansion and modification was proposed by the company for installation of 2 x 0.6 MTPA Iron ore Pelletisation Plant with deletion of Mini Blast Furnace and 1 x 25 tonnes Electric Arc Furnace for which EC was granted by MoEF&CC vide File No. J- 11011/48/2012-IA-II(I), dated 26.09.2012 under Para 7(II) of EIA Notification, 2006 as recorded in the Minutes of 36th Meeting of EAC (Industry-1) held during 24-25th May, 2012.
- The company applied for re-configuration of 2 x 8 tonnes IF into 1 x 15 tonnes IF to the state pollution control board, Odisha. The approval for this re-configuration was granted by the SPCB Odisha vide letter no. 8366/IND-II-NOC-6384 dated 07.09.2020.
- Project proponent was unable to complete the project due to some unavoidable reasons and financial issues and project could not get completed within the validity period of earlier granted environment clearance and approx. 55% of the construction work was completed at the project site as per the granted EC within validity period of EC. Hence, **PP is applying for revalidation as per MoEF&CC Notification vide S.O 1247(E)**

dated 18th March 2021 and clause 7(i) (x) of EIA Notification 2006 as amended and has requested for exemption of Public Hearing.

iii. The EAC noted that PP has submitted CA Certificate dated 15.02.2023 stating that the invested amount i.e., Rs 226.34 Crores is approximately 59% against the total project cost of Rs. 379.56 Crores taking into consideration the EC dated 22.02.2008 and 26.09.2012 as detailed above in para 23.4.14 above. PP has also submitted an affidavit dated 15.02.2023 for 55% percent construction completion.

iv. PP has also stated that Pellet plant is not stand-alone unit and it's part of integrated steel plant. Construction of the pelletization plant has not started yet. However, Letter of intent has already been issued for setting up the proposed pelletization plant to M/s. Mineral and Metal Technologies.

v. The EAC further noted that Public Hearing has been conducted on 13.03.2007 during the time of appraisal of EC dated 22.02.2008 and EC dated 26.09.2012 for expansion and modification by installation of 2 x 0.6 MTPA Iron ore Pelletisation Plant with deletion of Mini Blast Furnace and 1 x 25 tonnes Electric Arc Furnace, was granted under the provisions of Para 7(II) of EIA Notification, 2006 with exemption of Public Hearing as recorded in the Minutes of 36th Meeting of EAC (Industry-1) held during 24-25th May, 2012.

vi. In view of above, the EAC is of the opinion that the instant proposal complies with Ministry's O.M. IA3-22/10/2022-IA.III[E177258] dated 11.04.2022 pertaining to Guidelines for granting EC under para 7(ii)(a) of EIA Notification, 2006, for expansion upto 50% and accordingly, Public Hearing may be exempted in the instant case.

vii. Total project area is 72.04 ha which is private land and under the possession of the company.

viii. The EAC noted that the Project site falling under CPA of Jharsuguda, Odisha and is of the opinion that CEPI guidelines shall be complied.

ix. The Ibi River is reported to be at a distance of 0.05 km in the North direction within the study area of 10 km of the project site. PP has submitted the request letter dated 14.02.2023 for NOC to office of Executive Engineer, Minor Irrigation Department, Jharsuguda and committed to submit the final NOC with Final EIA/EMP report. The EAC is of the opinion that the water bodies shall not be disturbed. NOC from irrigation department alongwith action plan comprising of mitigation measures for conservation of the water bodies submitted shall be included in EIA/EMP report.

x. The total water requirement is 16116 m^3/day. For operational units water is sourced from Ib river and same will be followed for units under construction.

xi. The EAC deliberated on the written submission of project proponent to the and found it satisfactory.

Recommendations of the Committee

23.4.16 After deliberations, the Committee **recommended** the TOR proposal **subject to uploading of written submission on PARIVESH portal** for prescribing following specific ToRs for

undertaking detailed EIA and EMP study with exemption of Public Hearing (under the provisions of MoEF&CC Notification vide S.O 1247(E) dated 18th March 2021) in addition to the generic ToRs enclosed at Annexure-1 read with additional ToRs at Annexure-2:

(i) The Ibi River is at a distance of 0.05 km in the North direction within the study area of 10 km of the project site. PP shall submit the NOC from irrigation department. The PP shall also include in the EIA/EMP report suitable steps /conservation plan along with contouring (close intervals), Run -off calculations, disposal etc. A robust and full proof Micro-Drainage Conservation scheme to protect the natural drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided.

(ii) In pursuance to MoEF&CC OMs dated 31st October, 2019 & 30th December, 2019 issued in compliance of the order of Hon'ble NGT in OA No. 1038/2018 dated 19th August, 2019, the compliance of all the conditions applicable to CEPI shall be implemented. Greenbelt shall be planned in 40% of the project area. CER allocation shall be 1.5 times of the normal calculated amount.

(iii) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.

(iv) Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(v) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.

(vi) PP shall submit action plan for rainwater harvesting system.

(vii) Action plan for 100 % solid waste utilization shall be submitted.

(viii) Project proponent shall prepare layout plan showing all internal roads minimum 6m width and 9m turning radius with proper looping for smooth traffic flow, including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing.

(ix) Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.

(x) Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames", when PP comes for EC proposal. This study shall be formulated keeping in view of India's Net-zero commitment at the COP-26 Climate Summit.

(xi) As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey (10 Kms radial coverage from the project site) and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.

(xii) Traffic study shall be carried out inter-alia including existing road details with traffic load, proposed quantum of material to be transported by sea/rail/road with anticipated vessels/rakes/vehicles details, line source modelling and infrastructure strengthening details etc., These details shall be included in the EIA report.

(xiii) Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

(xiv) Action plan to limit the dust emission from all the stacks below 30 mg/Nm^3 shall be furnished.

(xv) Air Cooled condensers shall be used in the captive power plant.

(xvi) A Plan of Action for disposal of e-waste must be drawn up and implemented.

(xvii) PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.

(xviii) Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, location of fire water tanks & capacity, separate power system for fire fighting, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site shall be submitted.

***

Agenda No. 23.5

23.5 Proposed Ferro Alloys Plant for Production of Silico Manganese/Ferro Silicon/ Ferro Manganese/ Ferro Chrome by Installation of 2 x 9 MVA Submerged Arc Furnaces. & Manufacturing of Ferro Moly/ Ferro titanium/ LC or MC Ferro Manganese. & Sinter Plant and Processing Unit for Utilizing by Product and Waste Dust by M/s SMO Ferro Ltd., located at SY. NO. 32/1 & 33/1, Gram Shivgadh, Kuajhagar, Tehsil-Sailana, District-Ratlam, Madhya Pradesh – Consideration of TOR

[Proposal No. IA/MP/IND1/404738/2022; File No. IA-J-11011/486/2022-IA-II(IND-I))]

23.5.1 Consideration of the proposal was **deferred** as the Project Proponent did not attend the meeting. The Member Secretary appraised the Committee that M/s SMO Ferro Ltd. vide letter dated NIL sent through email dated 13.02.2023 informed that they will not be able to attend the meeting due to some unavoidable circumstances. Taking into consideration the communication from the PP, EAC requested the Ministry to place the proposal in the EAC meeting only after receiving further request/communication from project proponent.

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Re-Consideration of ToR

Agenda No. 23.6

23.6 Expansion of existing Integrated Steel Plant to final capacity of Iron Ore Beneficiation Plant 2 MTPA, Pellet Plant 1.2 MTPA, Sponge Iron Plant 0.3 MTPA, Sinter Plant 1.75 MTPA, Blast Furnace 1.27 MTPA, Steel Products (SMS & Rolling Mill) 1.5 MTPA, Coal Washery 1 MTPA, Coke Oven Plant (Non-Recovery Type) 0.5 MTPA, Ferro Alloy Plant 0.125 MTPA, Lime Dolo Plant 0.165 MTPA, Oxygen Plant 0.302 MTPA, CPP- 215 MW of M/s Aarti Steels Ltd., located at Village-Ghantikhal, Tehsil-Athagarh, District-Cuttack, Odisha – Consideration of TOR

[Proposal No. IA/OR/IND/278468/2022; File No. IA- J-11011/287/2007.-IA.II(I)]

23.6.1 M/s Aarti Steels Ltd. has made an application online vide proposal no. IA/OR/IND/278468/2022 dated 18/11/2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S.No. 3(a) Metallurgical industries (ferrous & non-ferrous), 2(b) Mineral Beneficiation, 1(d) Thermal Power Plants, 2(a) Coal Washeries & 4(b) Coke Oven Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

23.6.2 Name of the EIA consultant: M/s. Visiontek Consultant Services Private Limited [S. No. 103, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/RA 0209 valid till 16.12.2023; Rev. 25, Sept 05, 2022].

23.6.3 The proposal cited above was considered during the 18th meeting of the EAC for Industry-I sector held on 28-29th November, 2022. After detailed deliberation, it was observed that:

i. The project land area is 315.1 ha. The total land is acquired and is in the possession of the company. No additional area will be required for enhancement. However, Aarti Steels has applied for conversion of present land kissam (Patita, Taila, Goda-II etc.) to industrial land on 06/07/2022 which is pending.

ii. The nearest habitation to plant are Ghantikhal (0.26 km, E), Nidhipur (0.34 km, E) and Mahakalbasta (1.5 km, W) from the project site boundary. There is a school nearby at 150 m distance from the project site. The EAC is of the opinion that there is a need to inspect the area as the nearby area appears to have rich habitation.

iii. Two nos. of water bodies viz. Water reservoir made by PP and Rainwater Harvesting Pond exists within the project site. Sapua Nadi (2.09 km, WSW), Barha Jor (2.83 km, NW), Mahanadi River (3.40 km, E), Kathajodi River (5.84 km, SE) and Bhuiyan Jor (8.74 km, E) are flowing within 10 Km. radius of the plant site. The EAC is of the opinion that water bodies are required to be conserved.

iv. PP has reported that HFL near Naraj (5.7 km distance from project site) is 27.5 m AMSL against site elevation of 29 to 80 m AMSL.

v. Thus, in view of the above observations the EAC is of the opinion that it is pertinent to undertake site visit to understand the ecological sensitivity of the area, overview of

carrying capacity due to presence of other plant and mines unit and possible environmental/social impacts of the instant proposed project

23.6.4 In view of the foregoing and after deliberations, the Committee recommended **t**o defer the proposed project and recommended for site visit of the proposed project area by a sub-committee of EAC Industry-1 members comprising of Dr. S.K. Singh and Dr. Ranjit Prasad and Representative of MoEFCC to conduct the site visit and submit the Report. The proposal shall be appraised based on the findings of the sub-committee and deliberation of EAC

23.6.5 Accordingly, the EAC (Industry-1) sub-committee conducted a site visit to M/s Aarti Steels Ltd., located at Village-Ghantikhal, Tehsil-Athagarh, District-Cuttack, Odisha was undertaken during 14-15th January 2023.

23.6.6 At this instance, the proposal was further considered by the EAC (Industry 1) in its 23rd meeting of the EAC for Industry-I sector held on 14-15th February, 2023. The details of the proposed project are as follows:

Details submitted by Project proponent

23.6.7 The project of Aarti Steels Ltd. located in Village Ghantikhal, Tehsil Athagarh, District Cuttack, Odisha is for expansion of existing Integrated Steel Plant to final capacity of Iron Ore Beneficiation Plant 2.0 MTPA (Throughput), Pellet Plant 1.2 MTPA, Sponge Iron Plant 0.3 MTPA, Sinter Plant 1.75 MTPA, Blast Furnace 1.27 MTPA, Steel Products (SMS & Rolling Mill) 1.5 MTPA, Coal Washery Plant 1.0 MTPA (Throughput), Coke Oven Plant (Non-Recovery Type) 0.5 MTPA, Chrome Ore Briquetting Plant 0.3 MTPA, Ferro Alloy Plant 0.125 MTPA, Lime-Dolo Plant 0.165 MTPA, Oxygen Plant 0.302 MTPA, CPP- 215 MW.

23.6.8 Environmental site settings:

S. No.	Particulars	Details	Remarks
1.	Total land	315.1 Ha [Govt. Land through IDCO : 265.47 Ha; Private Land through IDCO : 45.15 Ha; Directly purchased Pvt. Land : 4.53 Ha]	Land use: Aarti Steels Applied for conversion of present land kissam (Patita, Taila, Goda-II etc.) to industrial land on 06/07/2022.
2.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Existing Area : 283.4 Ha. Proposed Expansion Area: 31.7 Ha. Total Project Area: 315.1 Ha. The total land is acquired and is in the possession of the company.	-
3.	Existence of habitation & involvement of R&R, if any.	**Project Site:** No habitation exists **Study Area:** • Ghantikhal – 0.16 km (E)	R & R is not applicable.

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>• Dwarabatipur – 0.20 km (S)
• Nidhipur – 0.34 km (E)
• Jenapur – 1.22 km (S)
• Ramshyampur – 1.25 km (E)
• Mahakalabasta – 1.50 km (W)
• Brahmanabasta – 2.50 km (W)</td><td></td></tr>
<tr><td>4.</td><td>Latitude and Longitude of all corners of the project site.</td><td><table><tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr><tr><td>A</td><td>20°31'22.63"N</td><td>85°43'11.05"E</td></tr><tr><td>B</td><td>20°31'6.65"N</td><td>85°43'8.84"E</td></tr><tr><td>C</td><td>20°31'12.09"N</td><td>85°42'37.94"E</td></tr><tr><td>D</td><td>20°30'51.13"N</td><td>85°42'51.97"E</td></tr><tr><td>E</td><td>20°30'25.87"N</td><td>85°43'5.41"E</td></tr><tr><td>F</td><td>20°30'27.31"N</td><td>85°44'8.95"E</td></tr><tr><td>G</td><td>20°31'20.27"N</td><td>85°44'4.28"E</td></tr><tr><td>H</td><td>20°31'56.01"N</td><td>85°44'19.97"E</td></tr><tr><td>I</td><td>20°32'0.58"N</td><td>85°44'7.07"E</td></tr><tr><td>J</td><td>20°31'20.36"N</td><td>85°43'56.52"E</td></tr></table></td><td>-</td></tr>
<tr><td>5.</td><td>Elevation of the project site</td><td>29 to 80 m above mean sea level</td><td>-</td></tr>
<tr><td>6.</td><td>Involvement of Forest land if any</td><td>No forest land involved</td><td>-</td></tr>
<tr><td>7.</td><td>Water body exists within the project site as well as the study area</td><td>Project Site:
2 Nos. of water bodies
i) Water reservoir made by PP
ii) Rainwater Harvesting Pond

Study Area:<table><tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr><tr><td>Sapua Nadi</td><td>2.09 km</td><td>WSW</td></tr><tr><td>Barha Jor</td><td>2.83 km</td><td>NW</td></tr><tr><td>Mahanadi River</td><td>3.40 km</td><td>E</td></tr><tr><td>Kathajodi River</td><td>5.84 km</td><td>SE</td></tr><tr><td>Bhuiyan Jor</td><td>8.74 km</td><td>E</td></tr></table></td><td>Authenticated HFL Data received from The Chief Engineer, CWC, Bhubaneswar vide letter no. TD/905/CE/VI/2020/383 dated 31.03.2022.

HFL near Naraj (5.7 km distance from project site) is 27.5 m AMSL against site elevation of 29 to 80 m AMSL.</td></tr>
<tr><td>8.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area.</td><td>Nil

Reserve Forest:<table><tr><th>Forest</th><th>Distance</th><th>Direction</th></tr><tr><td>Oringa RF</td><td>Adjacent to Project boundary</td><td>NW</td></tr><tr><td>Khalakhala RF</td><td>0.64 km</td><td>S</td></tr><tr><td>Brahmanabasta RF</td><td>0.66 km</td><td>E</td></tr><tr><td>Subasi RF</td><td>2.09 km</td><td>NW</td></tr><tr><td>Ranibania RF</td><td>5.09 km</td><td>NW</td></tr><tr><td>Sukasana RF</td><td>5.10 km</td><td>SW</td></tr><tr><td>Deulia RF</td><td>5.12 km</td><td>NNW</td></tr></table></td><td>-</td></tr>
</table>

S. No.	Particulars	Details			Remarks
		Bouda Banakhandi RF	5.46 km	SW	
		Adala RF	5.67 km	NW	
		Suniamuhan RF	6.25 km	ENE	
		Sankhiapoi RF	6.65 km	NE	
		Gadabola RF	7.93 km	NW	
		Baula RF	8.13 km	ENE	

23.6.9 The existing project was accorded 1st Environmental Clearance vide File No. J-11011/158/2004-IA-II(I) dated 16.02.2005 and 2nd Environmental Clearance vide File No. J-11011/287/2008-IA-II(I) dated 13.05.2009. 1st CTE was obtained vide letter no. 25707, dated 15.12.2003, 2nd CTE vide letter no. 16176/IND-II-NOC-5130 dated 12.10.2009, 3rd CTE vide letter no. 786/IND-II-NOC-5130 dated 21.10.2010, 4th CTE vide letter no. 14797/IND-II-NOC-5130 dated 12.09.2014, 5th CTE vide letter no. 9140/IND-II-NOC-5987 dated 02.06.2016, 6th CTE vide letter no. 10214/IND-II-NOC-6162 dated 30.08.2018, and 7th CTE vide letter no. 7263/IND-II-CTE-6162 dated 20.07.2019. 1st CTO from OSPCB vide letter no. 33948-IND-I-CON-4904 dated 25.11.2005, 2nd CTO vide letter no. 9051-IND-I-4904 dated 10.06.2009, 3rd CTO vide letter no. 899-IND-I-4904 dated 19.01.2011, and latest CTO vide letter No. 3266/IND-I-CON-4904, dated. 21.03.2018 and CTO letter No. 10254/IND-I-CON-4904, dated. 01.10.2019.

23.6.10 Implementation status of the existing EC:

S.No.	Facilities	Units	As per EC dated 13/05/2009	Implementation Status	Production as per CTO	Reason / Justification
1.	Coal Washery	2 x 10,00,000 TPA	20,00,000 TPA	1 X 10,00,000 TPA (Installed and Operational)	1.0 MTPA	Some units' i.e. Sinter Plant, Coke Oven (Non-Recovery Type) and MBF were not implemented due to financial constraints and downturn market. However, now in the present expansion proposal, these facilities are proposed again with better technology & low specific power consumption and as per market demand.
				1 X 10,00,000 TPA (Not Implemented)	Not Implemented	
2.	Sinter Plant	1 x 36 m^2	3,43,000 TPA	Not Implemented	Not Implemented	
3.	Coke Oven (Non-Recovery Type)	NRCO 4x14 Nos. Oven	2,36,000 TPA	Not Implemented	Not Implemented	
4.	Power Plant	2x50 MW CFBC + 2x10 MW WHRB + 1x40 MW AFBC	160 MW	100 MW (2x10 MW WHRB + 1x50 MW CFBC + 1x30 MW AFBC) (Installed and Operational)	100 MW = (2x10 MW WHRB + 1x50 MW CFBC + 1x30 MW AFBC)	
				60 MW (1x50 MW CFBC + 1x10 MW AFBC) (Not Implemented)	Not Implemented	
5.	DRI Plant	4 x 500 TPD	6,00,000 TPA	2 x 500 TPD (Installed and operational)	3,00,000 TPA	
				2 x 500 TPD (Not Implemented)	Not Implemented	

S.No.	Facilities	Units	As per EC dated 13/05/2009	Implementation Status	Production as per CTO	Reason / Justification
6.	SMS	IF -4x12.5 T, EAF – 2x35 T, LRF – 2x25 T & 2x35 T, AOD – 1x35 T, 1x2 Strand & 1x3 Strand Billet Caster, 1x2 Bloom Caster	0.5 MTPA	EAF - 1x35 T, LRF - 2x26 T, VD - 1x35 T, Billet Caster	2,08,333 TPA	
7.	MBF (Pig Iron)	3,00,000 TPA		Not Implemented	Not Implemented	
8.	Ferro Alloy Plant	2 x 25,000 TPA	50,000 TPA	50,000 TPA (Installed and Operational)	2x9 MVA + 1x18 MVA (50,000 TPA)	
9.	Rolling Mill	4,99,300 TPA		2,00,000 TPA (Installed and Operational)	2,00,000 TPA	
				2,99,300 TPA (Not Implemented)	Not Implemented	

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

S. No.	Plant Equipment/ Facility	Existing Facilities as per EC dated 13th May, 2009						As per latest CTO dated 21.03.2018 & 01.10.2019		Proposed Units		Final (Existing +Proposed)	
		Total (A + B)		Implemented (A)		Un-implemented (B)							
		Config.	Capacity	Config.	Capacity	Config.	Capacity	Config.	Capacity	Config	Capacity	Config.	Capacity
1.	Iron Ore Beneficiation Plant	-	-	-	-	-	-	-	-	1x20,00,000 TPA	20,00,000 TPA (Throughput)	1x20,00,000 TPA	20,00,000 TPA (Throughput)
2.	Pelletization Plant	-	-	-	-	-	-	-	-	1x12,00,000 TPA	12,00,000 TPA	1x12,00,000 TPA	12,00,000 TPA
3.	Sponge Iron Plant	4X500 TPD	4x1,50,000 TPA = 6,00,000 TPA	2X500 TPD	3,00,000 TPA	2X500 TPD	3,00,000 TPA	2x500 TPD	3,00,000 TPA	-	-	2x500 TPD	3,00,000 TPA
4.	SMS	IF -4x12.5 T, EAF – 2x35 T, LRF – 2x25 T & 2x35 T, AOD – 1x35 T, 1x2 Strand & 1x3 Strand Billet Caster, 1x2 Bloom Caster	0.5 MTPA	IF -4x12.5 T, EAF – 2x35 T, LRF – 2x25 T & 2x35 T, AOD – 1x35 T, 1x2 Strand & 1x3 Strand Billet Caster, 1x2 Bloom Caster	0.5 MTPA	-	-	EAF -1x35 T, VD - 1x35 T, LRF – 2x26 T Billet Caster	2,08,333 TPA	EOF - 3x65 T, IF - 4x20 T, LRF - 4x65 T, VOD/VD - 2x65 T, AOD - 1x45 T& 1x65 T, 2x3 Strand Billet Caster, 1x8 M Slab Caster	13,43,430 TPA	EAF -1x35 T, VD - 1x35 T, LRF – 2x26 T EOF - 3x65 T, IF - 4x20 T, LRF - 4x65 T, VOD/VD - 2x65 T, AOD - 1x45 T& 1x65 T, 2x3 Strand Billet Caster, 1x8 M Billet Caster,	15,51,763 TPA
5.	Rolling Mill	-	4,99,300 TPA	-	2,00,000 TPA	-	2,99,300 TPA	1x2,00,000 TPA	2,00,000 TPA	-	13,00,000 TPA	-	15,00,000 TPA

S. No.	Plant Equipment/ Facility	Existing Facilities as per EC dated 13th May, 2009						As per latest CTO dated 21.03.2018 & 01.10.2019		Proposed Units		Final (Existing +Proposed)	
		Total (A + B)		Implemented (A)		Un-implemented (B)							
		Config.	Capacity	Config.	Capacity	Config.	Capacity	Config.	Capacity	Config	Capacity	Config.	Capacity
6.	Captive Power Plant	2x50 MW CFBC	160 MW	1x50 MW – CFBC	100 MW	1x50 MW – CFBC	60 MW	1x50 MW – CFBC	100 MW	78 MW CFBC	115 MW	128 MW - CFBC	215 MW
		2x10 MW WHRB		2x10 MW – WHRB		-		2x10 MW – WHRB		37 MW - WHRB (Coke Oven Based)		57 MW - WHRB (DRI+Coke Oven Based)	
		1X40 MW AFBC		1x30 MW - AFBC		1x10 MW AFBC		1x30 MW - AFBC		-		30 MW - AFBC	
7.	Coke Oven Plant (Non-Recovery Type)	-	2,36,000 TPA	-	-	-	2,36,000 TPA	-	-	4x50,000 TPA & 4x75,000 TPA	5,00,000 TPA	4x50,000 TPA & 4x75,000 TPA	5,00,000 TPA
8.	Sinter Plant	1x36 m^2	3,43,000 TPA	-	-	1x36 m^2	3,43,000 TPA	-	-	1x65 m^2 & 1x105 m^2	17,57,800 TPA	1x65 m^2 & 1x105 m^2	17,57,800 TPA
9.	Blast Furnace	1x350 m^3	3,00,000 TPA	-	-	1x350 m^3	3,00,000 TPA	-	-	1x450 m^3 & 1x650 m^3	12,70,500 TPA	1x450 m^3 & 1x650 m^3	12,70,500 TPA
10.	Coal Washery	2x10,00,000 TPA	20,00,000 TPA	1x10,00,000 TPA	10,00,000 TPA	1x10,00,000 TPA	10,00,000 TPA	1x10,00,000 TPA	10,00,000 TPA	-	-	1x10,00,000 TPA	10,00,000 TPA
11.	Ferro Alloy Plant	-	50,000 TPA	-	50,000 TPA	-	-	2x9 MVA & 1x18MVA	50,000 TPA	-	75,000 TPA	-	1,25,000 TPA
12.	Lime-Dolo Plant	-	-	-	-	-	-	-	-	2x250 TPD	1,65,000 TPA	2x250 TPD	1,65,000 TPA
13.	Oxygen Plant	-	-	-	-	-	-	-	-	1x150 TPD + 1x180 TPD + 1x300 TPD+ 1x260 TPD	3,02,500 TPA	1x150 TPD + 1x180 TPD + 1x300 TPD+ 1x260 TPD	3,02,500 TPA

Details of Associated / Waste Recovery Plants

S. No.	Facilities	Existing as per CTO dtd. 21.03.2018 & 01.10.2019		Proposed		Total		Remarks
		Config.	Capacity	Config.	Capacity	Config.	Capacity	
1.	Chrome Ore Briquetting Plant	1 x 25 TPH	1,50,000 TPA	1 x 25 TPH	1,50,000 TPA	2 x 25 TPH	3,00,000 TPA	Waste Recovery Plants
2.	Fe-Cr Metal Recovery Plant	-	-	1 x 25 TPH	2,07,000 TPA	1 x 25 TPH	2,07,000 TPA	

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

S. No.	Raw Material	Existing Quantity (TPA)	Proposed Quantity (TPA)	Total Quantity (TPA)	Source	Distance From Site (Kms)	Mode of Transportation
1	Iron ore fines (Avg. Fe 58%)	-	20,00,000	20,00,000	Mines in Odisha, Jharkhand/ OMC/ Other Private Mines	200-300	Road/Rail
	High Grade Iron Ore Fines (Avg. Fe 62%)	-	7,08,010	7,08,010			
2	Coal	10,06,000	8,29,860	18,35,860	Mines in Odisha, Jharkhand/ OMC/ Other Private Mines	200-300	Road/Rail
3	Coking Coal	-	6,75,000	6,75,000	Import/Open Market	80-120	Road/Rail
4	Coke	21,000	14,290	35,290	Kalinganagar, Jajpur	95-120	Road
5	Limestone	4,500	4,95,852	5,00,352	Rourkela/ Raigarh	280-330	Road/Rail
6	Dolomite	18,000	1,34,470	1,52,470	Rourkela/ Raigarh	280-330	Road/Rail
7	Chrome Lumps/ Fines	1,61,000	1,71,000	3,32,000	Sukinda, Odisha	90-110	Road
8	Qaurtz	11,000	16,500	27,500	Open market	95-120	Road
9	Bentonite	-	8,400	8,400	Rourkela/ Raigarh	280-330	Road/Rail
10	LDO	-	30,900	30,900	Paradeep	80-120	Road
11	Molasses	9,000	9,000	18,000	Open market	95-120	Road
12	Coke Breeze	-	97,117	97,117	Kalinganagar, Jajpur	95-120	Road/Rail
Note: *For existing DRI Plant, 4,50,000 TPA iron ore is being outsourced as raw material. But, in the proposed expansion, in-house produced Pellet will be used in DRI Plant as raw material.							

23.6.13 The total water requirement is 37,351 KLD (Mahanadi River – 34,433 KLD + Rainwater Harvesting – 2918 KLD). Existing water requirement of 11,582 KLD, is being obtained from Mahanadi River (3.40 km, E). The proposed water requirement of 22,851 KLD will also be sourced from Mahanadi River and rainwater harvesting. Permission for withdrawal of 23,803 KLD (4,760 KLD for drinking purpose & 19,043 KLD for Industrial) Surface Water from Mahanadi River has been obtained vide an agreement dated 28.04.2004. Permission for total has been obtained from Dept. of Water Resource, Bhubaneswar vide letter no. WII-DM-Misc.-5/2003/13857 dated 26.12.2003.

23.6.14 The total power requirement for the plant is 278 MW. Existing power requirement is 74 MW. The proposed power requirement for the expansion project is estimated to be 204 MW. For total 278 MW power requirement, 215 MW will be obtained from CPP & rest 63 MW will be obtained from nearest grid. Permission for 10 MW from GRIDCO for emergency startup power has been obtained vide letter no. Gridco-DC-89/2009/5994(12) dtd. 05.09.2009.

23.6.15 The capital cost of the project is Rs. 6112 Crores (Existing Rs. 1052 Crores & Proposed Rs. 5060 Crores) and capital cost for Environmental Protection Measures is proposed as Rs. 489 Crores. Direct Employment generation from the project is 6120 (Existing - 2533, Proposed - 3587). Indirect Employment generation will be around 12000.

23.6.16 It is submitted that there is no violation under EIA notification 2006/no court cases/no show cause/no direction related to the project under consideration.

23.6.17 Proposed Terms of Reference: [Baseline data collection period: March to May 2022]

Environmental Aspect	Frequency/ Parameters / Locations
Micro Meteorology	**Frequency:** Continuous recording of hourly micro-meteorological parameters for 3 months **Parameters:** Temperature, Relative Humidity, Rainfall, Wind speed, Wind direction, Cloud cover, **Location:** At/Near Project Site
Ambient Air Quality	**Frequency:** Twice a week on 24 hrs basis for 12 weeks **Parameters:** PM_{10}, $PM_{2.5}$, SO_2, NOx, CO, NH_3, O_3 BaP & Fe **Locations:** 12 locations within the study area covering core zone, upwind directions, downwind directions, crosswind directions and nearby habitations based on the predominant windrose.
Ambient Noise Levels	**Frequency:** Continuous monitoring for 24 hours (Day & Night) at each location, Once in a month for 3 months **Parameters:** Leq Day Time, Leq Night Time **Locations:** 10 locations within the study area covering core zone, various land uses and nearby habitations.
Surface Water Quality	**Frequency:** Once during the study period **Parameters:** Colour, pH, Dissolved Oxygen (min), Conductivity, Total Hardness, Turbidity, Chlorine (Cl^-),Total Dissolved Solids, Oil & Grease (max), BOD (3) days at 27°C (max), Chemical Oxygen Demand (COD), Arsenic (As), Lead (Pb), Cadmium (Cd) (max), Hexa Chromium as Cr^{+6}, Copper (Cu) (max), Zinc (Zn) (max), Selenium (Se) (max), Cyanide (CN) (max), Fluoride (F), Sulphates ($SO4^-$), Calcium (Ca), Magnesium (Mg), Manganese (Mn), Boron (B), Mercury (Hg), Phenolic Compounds as C_6H_5OH (max), Iron (Fe) (max), Nitrate (NO_3), Anionic Detergents (max), Total Coliform. **Locations:** 8 locations within the study area covering major surface water bodies.
Ground Water Quality	**Frequency:** Once during the study period **Parameters:** Color, Odour, Taste, Turbidity, pH, Total Hardness (as $CaCO_3$), Iron (Fe) , Chloride (Cl^-), Residual Free Chlorine, Total Dissolved Solids as TDS, Calcium (Ca), Magnesium (Mg), Copper (Cu), Manganese

Environmental Aspect	Frequency/ Parameters / Locations
	(Mn), Sulphate (SO_4^-), Nitrate (NO_3), Fluoride (F), Phenolic Compounds as C_6H_5OH, Mercury (Hg), Cadmium (Cd), Selenium (Se), Arsenic (As), Cyanide (CN), Lead (Pb), Zinc (Zn), Total Chromium as Cr, Mineral Oil, Alkalinity, Aluminium (Al), Boron (B), Total Coliform as TC, Amonia Total, Barium (Ba), Molybdenum (Mo), Nickel (Ni), PAH & Pesticide. **Locations:** 9 locations within the study area.
Soil Quality	**Frequency:** Once during the study period **Parameters:** Conductivity, Water Holding Capacity, Infiltration Rate, pH, Texture, Sand, Silt, Clay, Bulk Density, Exchangeable Calcium, Exchangeable Sodium, Exchangeable Magnesium, Available Potassium, Available Phosphorus, Available Nitrogen, Organic Matter, Organic Carbon, Water Soluble Chloride, Water Soluble Sulphate, Sodium Absorption Residue, Aluminium, Iron, Manganese, Boron, Zinc, Chromium, Hexavalent Chromium, Nickel, Copper, Cadmium, Iron, Silica, Lead, Available Phosphorus. **Locations:** 7 locations within the study area covering different land uses such as agriculture land, park, waste land, etc.
Hydrogeology	**Frequency:** During pre-monsoon & post-monsoon **Parameters:** Drainage pattern, Ground water table depth, ground water quality, ground water yield, etc. **Locations:** villages within 10 km radius study area
Land use land cover	Satellite imagery based land use study and preparation of land use land cover maps based on latest LULC classifications & Ground truthing. **Parameters**: Agricultural area, Water bodies, Industrial land, Barren land, Built-up land, Forest area.
Ecology & Biodiversity	**Frequency:** Primary survey during study period. Secondary data collection from Forest department **Parameters:** Terrestrial Flora & Fauna, Aquatic flora & fauna, Forests, etc. **Location:** 10 km radius study area
Socio-economy	**Frequency:** Primary survey during study period. Secondary data collection from Govt. offices, Village Panchayats, Census of India records **Parameters:** Demographic pattern, economic pattern, social amenities availability **Location:** 10 km radius study area

Deliberation by the Committee

23.6.18 The Committee noted the following:

i. The instant proposal is for expansion of existing Integrated Steel Plant to final capacity of Iron Ore Beneficiation Plant 2.0 MTPA (Throughput), Pellet Plant 1.2 MTPA, Sponge Iron Plant 0.3 MTPA, Sinter Plant 1.75 MTPA, Blast Furnace 1.27 MTPA, Steel Products (SMS & Rolling Mill) 1.5 MTPA, Coal Washery Plant 1.0 MTPA (Throughput), Coke Oven Plant (Non-Recovery Type) 0.5 MTPA, Chrome Ore Briquetting Plant 0.3 MTPA, Ferro Alloy Plant 0.125 MTPA, Lime-Dolo Plant 0.165 MTPA, Oxygen Plant 0.302 MTPA, CPP- 215 MW.

ii. The EAC deliberated on the proposal. Based on the KML file presented by the PP, the proposed Unit is brownfield project.

iii. The existing project was accorded 1st Environmental Clearance vide File No. J-11011/158/2004-IA-II(I) dated 16.02.2005 and 2nd Environmental Clearance vide File No. J-11011/287/2008-IA-II(I) dated 13.05.2009.

iv. The existing project land area is 283.4 ha. Additional land of 31.7 Ha. is involved in the expansion of Project. Out of the total land of 315.1 Ha, 265.47 Ha. is Govt. Land obtained through IDCO, 45.15 Ha. is Private Land obtained through IDCO and rest 4.53 Ha. is directly purchased Private Land. The total land is acquired and is in the possession of the company. Aarti Steels has applied for conversion of present land kissam (Patita, Taila, Goda-II etc.) to industrial land on 06/07/2022.

v. The Committee further noted the following from the subcommittee's site visit report:

A. Observations made during the Site Visit

Sl. No.	EAC Observations	Submissions by Aarti Steels Ltd.	Remarks of the Sub-Committee
i.	The project land area is 315.1 ha. The total land is acquired and is in the possession of the company. No additional area will be required for enhancement. However, Aarti Steels has applied for conversion of present land kissam (Patita, Taila, Goda-II etc.) to industrial land on 06/07/2022 which is pending.	Previously EC was granted over an area of 283.4 Ha vide letter no. vide File No. J-11011/287/2008-IA-II(I) dated 13.05.2009. After that, additional land of 31.7 Ha has been acquired for truck parking and green cover for future expansion. The total land required for the proposed expansion of steel plant from 0.2 MTPA to 1.5 MTPA is 315.1 Ha. Out of the total land of 315.1 Ha, 265.47 Ha. is Govt. Land obtained through IDCO, 45.15 Ha. is Private Land obtained through IDCO and rest 4.53 Ha. is directly purchased Private Land. The total land is acquired and is in the possession of the company. No additional land acquisition is required for proposed expansion of steel plant from 0.2 MTPA to 1.5 MTPA. Aarti Steels Ltd. has applied for conversion of present land kissam (Patita, Taila, Goda-II etc.) to industrial land on 06/07/2022 of 4.53 Ha.	The land Information provided in the PFR was not exactly matching with Brief write up in terms of breakup of land. Additional land of 31.7 Ha. is involved in the expansion of Project. PP needs to update the land break-up in Form-1 and also upload the updated KML file.
ii.	The nearest habitation to plant are Ghantikhal (0.26 km, E), Nidhipur (0.34 km, E) and Mahakalbasta (1.5 km, W) from the project site boundary. There is a school nearby at 150 m distance from the project site. The EAC is of the opinion that	It is clarified that Panchayat High School, Ghantikhal is located in the East direction at aerial distance of 0.24 km from the Plant boudnary & the Ghantikhal -Nidhipur Railway Station is at 0.15 km (E). There is railway line and a road in between the Plant Boundary and the School. There is existing greenbelt of width more than	PP has clarified the Panchayat High School, Ghantikhal is 0.24 km from the Plant boundary and there exists significant greenbelt in between the school and Plant facilities. Further, it was clarified that the

Sl. No.	EAC Observations	Submissions by Aarti Steels Ltd.	Remarks of the Sub-Committee
	there is a need to inspect the area as the nearby area appears to have rich habitation.	200m within the Plant and it will be maintained at minimum 200m even after expansion at the South-Eastern corner of the Project Site. Also, the distance between Plant Facility/Unit and School is about 1.17 km. And the Proponent has committed to further develop dense greenbelt with tall trees around the Project Boundary close to the sensitive areas. Plantation will also be developed all around the School boundary. Also as per the Yearly Windrose Pattern (Ref. IMD Station – Cuttack), Predominant wind direction is South (i.e. wind direction is from South to North). And schools in the nearby area are located in the East and West direction of the Project Site. Therefore, the plume trajectory will not be going directly towards the Schools. Ref.: Windrose diagram in Figure 1.2.	Predominant wind direction is Southerly. PP is advised to maintain minimum 200 m greenbelt with tall trees in the South-eastern corner of the Plant. PP was advised to address all the mitigation measures that would be raised during the Public hearing, besides the CSR activities the company is extending to the villagers.
iii.	Two nos. of water bodies viz. Water reservoir made by PP and Rainwater Harvesting Pond exists within the project site. Sapua Nadi (2.09 km, WSW), Barha Jor (2.83 km, NW), Mahanadi River (3.40 km, E), Kathajodi River (5.84 km, SE) and Bhuiyan Jor (8.74 km, E) are flowing within 10 Km. radius of the plant site. The EAC is of the opinion that water bodies are required to be conserved.	There are two water bodies within the Project Site (i.e. one water reservoir & one rainwater harvesting pond). The Proponent has assured to develop advanced water management system viz. adequate garland drain of adequate capacity all around the Project Site and further modification and improvement of existing rainwater harvesting system to collect water from rooftop of plant buildings. In addition, recharging pits & wells have been proposed for ground water recharging.	PP needs to develop advanced water management system with recharge pit and wells viz. adequate garland drain of adequate capacity all around the Project Site.
iv.	PP has reported that HFL near Naraj (5.7 km distance from project site) is 27.5 m AMSL against site elevation of 29 to 80 m AMSL.	The Proponent has furnished information regarding HFL (as mentioned in the observations) which has been authenticated by Superintending Engineer, Mahanadi & Eastern River Organization, Bhubaneswar vide Letter No. TD/905/CE/VI/2020/383 dated 31.03.2022.	PP has submitted HFL information authenticated by Superintending Engineer, Mahanadi & Eastern River Organization, Bhubaneswar in the PFR.

B. Compliance to the Queries of Sub-Committee vide Mail dated 13.01.2023

S. No.	Queries	Compliance by Aarti Steels Ltd.
1.	Submit a detailed report on the Sensitive location near the projects like habitation, school, and hospitals should be marked on a google map along with the prominent wind direction.	In response to the queries, Aarti Steels Ltd. made a brief presentation on the compliance. A brief description is given below: • Panchayat High School, Ghantikhal – 0.24 km (E) • Mahakalabasta High School – 1.54 km (W) • GIMSAR Hospital, Mahakalabasta – 1.67 km (W) • CHC, Berhampur – 2.94 km (ESE) Copy of the PRESENTATION is submitted.
2.	A report on ecological sensitivity of the area, an overview of carrying capacity due to the presence of other industries nearby.	The nearby Cement Industry in the vicinity are only cement grinding unit which is less polluting in comparison to Integrated Cement Plants. Copy of the PRESENTATION is submitted.
3.	PP has given in brief write up that "The project land area is 315.1 ha. The total land is acquired and is in the possession of the company. No additional area will be required for enhancement. However, Aarti Steels has applied for conversion of present land kissam (Patita, Taila, Goda-II etc.) to industrial land on 06/07/2022 which is pending." But as per Previous EC dated vide File No. J-11011/287/2008-IA-II(I) dated 13.05.2009 PP has 283.4 ha of land, current TOR application is for 315.1 ha, it seems an expansion with additional area a clarification in this regard need to be submitted in the form of affidavit. Also need to submit KML file for the exiting area 283.4 ha and additional land.	Previously EC was granted over an area of 283.4 Ha vide letter no. vide File No. J-11011/287/2008-IA-II(I) dated 13.05.2009. After that, additional land of 31.7 Ha has been acquired for truck parking and green cover for future expansion. The total land required for the proposed expansion of steel plant from 0.2 MTPA to 1.5 MTPA is 315.1 Ha. Out of the total land of 315.1 Ha, 265.47 Ha. is Govt. Land obtained through IDCO, 45.15 Ha. is Private Land obtained through IDCO and rest 4.53 Ha. is directly purchased Private Land. The total land is acquired and is in the possession of the company. An affidavit clarifying the additional area for proposed expansion in this regard is submitted.

vi. The nearest habitation to plant are Ghantikhal – 0.16 km (E), Dwarabatipur – 0.20 km (S), Nidhipur – 0.34 km (E), Jenapur – 1.22 km (S), Ramshyampur – 1.25 km (E), Mahakalabasta – 1.50 km (W) and Brahmanabasta – 2.50 km (W) from the project site boundary. Apart from these there is Panchayat High School, Ghantikhal – 0.24 km (E), Mahakalabasta High School – 1.54 km (W), GIMSAR Hospital, Mahakalabasta – 1.67 km (W) and CHC, Berhampur – 2.94 km (ESE) from the project site boundary.

vii. 2 Nos. of water bodies viz. Water reservoir made by PP and Rainwater Harvesting Pond exists within the project site. Sapua Nadi (2.09 km, WSW), Barha Jor (2.83 km, NW),

Mahanadi River (3.40 km, E), Kathajodi River (5.84 km, SE) and Bhuiyan Jor (8.74 km, E) are flowing within 10 Km. radius of the plant site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be prepared and included in the EIA/EMP Report.

viii. PP has reported that HFL near Naraj (5.7 km distance from project site) is 27.5 m AMSL against site elevation of 29 to 80 m AMSL Authenticated HFL. Data has been received from The Chief Engineer, CWC, Bhubaneswar vide letter no. TD/905/CE/VI/2020/383 dated 31.03.2022.

ix. The total water requirement is 37,351 KLD (Mahanadi River – 34,433 KLD + Rainwater Harvesting – 2918 KLD). Existing water requirement of 11,582 KLD, is being obtained from Mahanadi River (3.40 km, E). The proposed water requirement of 22,851 KLD will also be sourced from Mahanadi River and rainwater harvesting. Ground water withdrawal is not permitted.

Recommendations of the Committee

23.6.19 After deliberations, the Committee **recommended** the project proposal **subject to uploading of** compliance to sub-committee query and the presentation on site visit for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToRs enclosed at **Annexure-1** read with additional ToRs at **Annexure-2**.

(i) The nearest habitation to plant are Ghantikhal – 0.16 km (E), Dwarabatipur – 0.20 km (S), Nidhipur – 0.34 km (E), Jenapur – 1.22 km (S), Ramshyampur – 1.25 km (E), Mahakalabasta – 1.50 km (W) and Brahmanabasta – 2.50 km (W) from the project site boundary. Apart from these there is Panchayat High School, Ghantikhal – 0.24 km (E), Mahakalabasta High School – 1.54 km (W), GIMSAR Hospital, Mahakalabasta – 1.67 km (W) and CHC, Berhampur – 2.94 km (ESE) from the project site boundary. Project Proponent shall prepare an action plan for environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include some of these locations in its environmental monitoring programme.

(ii) 2 Nos. of water bodies viz. Water reservoir made by PP and Rainwater Harvesting Pond exists within the project site. PP needs to develop advanced water management system with recharge pit and wells viz. adequate garland drain of adequate capacity all around the Project Site.

(iii) Sapua Nadi (2.09 km, WSW), Barha Jor (2.83 km, NW), Mahanadi River (3.40 km, E), Kathajodi River (5.84 km, SE) and Bhuiyan Jor (8.74 km, E) are flowing within 10 Km. radius of the plant site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

(iv) The total water requirement of 37,351 KLD shall be sourced from Mahanadi River (34,433 KLD) and rainwater harvesting (2918 KLD) after obtaining necessary permission from the Competent Authority. Ground water withdrawal is not permitted.

(v) Tailing management plan shall be included in EIA.

(vi) Coal washery tailings shall be dewatered in filters and no tailing pond is permitted.

(vii) Air cooled condensors shall be used in the power plant.

(viii) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species. Details of flora and fauna existing in the study area shall be duly authenticated by the concerned DFO of the area. In case of existence of any endangered species and Schedule I fauna, authenticated conservation plan shall be submitted.

(ix) Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(x) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.

(xi) Action plan for 100 % solid waste utilization shall be submitted.

(xii) Project proponent shall prepare layout plan showing all internal roads minimum 6m width and 9m turning radius with proper looping for smooth traffic flow, including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing.

(xiii) Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.

(xiv) Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames", when PP comes for EC proposal. This study shall be formulated keeping in view of India's Net-zero commitment at the COP-26 Climate Summit.

(xv) As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey (10 Kms radial coverage from the project site) and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.

(xvi) Traffic study shall be carried out inter-alia including existing road details with traffic load, proposed quantum of material to be transported by sea/rail/road with anticipated vessels/rakes/vehicles details, line source modelling and infrastructure strengthening details etc., These details shall be included in the EIA report.

(xvii) An Action Plan for improving the house-keeping activities in the raw material handling area need to be submitted.

(xviii) Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

(xix) Action plan for fugitive emission control in the plant premises shall be provided.

(xx) Action plan to limit the dust emission from all the stacks below 30 mg/Nm^3 shall be furnished. Action plan for fugitive emission control in the plant premises shall be provided.

(xxi) PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.

(xxii) Industry is going to use silica quartz in large quantities and going to produce Silico Manganese and Ferro Silicon alloy steel. Therefore, it is necessary to control silica/quartz exposures at production Departments, not only emission norms as per Indian Factories Act. The permissible limit for silica/quartz should be within 10 mg/m^3 for total dust as per Indian Factories Act. Therefore, it is recommended to monitor personal and area exposures for silica quartz dust in the process plants.

(xxiii) The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within 2 mg/m3, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.

(xxiv) An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in 33% of the project area with a tree density shall not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Local species shall only have preferred for Green Belt and tall trees shall be introduced. PP has to develop the Green Belt with 200m wide in the South-eastern boundary towards to the School.

(xxv) PP to do personal and area air sampling for in PM2.5 dust where exposure to Coal/coke dust and quartz-silica respirable to be quantified at work areas at different process plants-coal/coke handling areas, power plants-ball mills, coal handling areas and to be compared with Permissible exposure limit of coal/coke dust.

(xxvi) An action plan for the disposal of electronic waste must be drawn up and implemented.

(xxvii) A plan of action for controlling emissions when these cross the critical limit must be documented and communicated to EAC.

(xxviii) Cumulative Impact Assessment need to be carried out considering the nearby industries.

***

Modification/Amendment in Terms of Reference

Agenda No. 23.7

23.7 Proposed Expansion of Sponge Iron Plant From 90,000 to 1,25,000 TPA, Induction Furnace & Billet Caster from 2x12T (300 TPD) To 1x12T, 1x15T (416 TPD), Captive Power Plant from 12 to 12.5 MW, Addition of Hot Rolling Mill including galvanizing 425 TPD, & Fly Ash Brick Manufacturing Unit 1000-1200 Bricks/Hr. by M/s. Goa Sponge & Power Limited, located at Survey No. 58/I,59/I,60/l (Part), Santona Village, Sanguem Taluka, South Goa District, Goa - Consideration of Modification in TOR and violation under SOP dated 07.07.2021.

[Proposal No. IA/GA/IND/296119/2022; File No. IA-J-11011/246/2018-IA.II(I)]

23.7.1 M/s. Goa Sponge and Power Limited has made an application online vide proposal no. IA/GA/IND/296119/2022 dated 30.12.2022 along with the application in prescribed format (Form-3), copy of revised Pre-feasibility report and revised Form-1 seeking amendment in Terms of Reference accorded by the Ministry vide letter no. IA-J-11011/246/2018-IA. II(I) dated 30.07.2018 w.r.t. Total Site Area, Wastewater generation and Environmental Sensitivity and for appraisal of proposal under violation category as per the provisions contained in the MoEF&CC Standard Operating Procedure dated 07.07.2021 as PP started work on site without Environmental Clearance after obtaining Consent to Establish from Goa State Pollution Control Board.

23.7.2 Name of the EIA consultant: M/s. Team Labs and Consultants, Hyderabad [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2124/RA0242; Valid up to 24.09.2024, as on February 16, 2023].

Details submitted by Project proponent

23.7.3 M/s. Goa Sponge & Power Limited had earlier applied for grant of ToR vide proposal no. IA/GA/IND/75297/2018 dated 04.06.2018 for capacity enhancement of Sponge Iron manufacturing and Induction Furnace with new Hot Rolling Mill located at Sanguem Municipal Council, Sangueum, Goa. Accordingly, Terms of Reference was issued by MoEF&CC vide letter no. IA-J-11011/246/2018-IA. II(I) dated 30.07.2018.

23.7.4 The instant proposal is for seeking amendment in ToR dated 30.07.2018 w.r.t. Total Site Area, Wastewater generation and Environmental Sensitivity and for appraisal of proposal under violation category as per the provisions contained in the MoEF&CC Standard Operating Procedure dated 07.07.2021 as PP started work on site without Environmental Clearance after obtaining Consent to Establish from Goa State Pollution Control Board. The changes are as follows:

S. No	Description	As mentioned in ToR dt. 30.07.2018	To be Amended as
1	Obtained ToR File No. IA-J-11011/246/2018-IA. II(I) dated. 30.07.2018	Prescribing Terms of Reference (ToR)	Terms of Reference (ToR) under Violation

S. No	Description	As mentioned in ToR dt. 30.07.2018	To be Amended as
2	Total Site Area	Total land area under industrial zone is 5 Ha	Total site area is 17.5 ha (43.47 acres)
3	Fly Ash Autoclave Brick & Block Manufacturing mill	-----	40 TPD 35000 Bricks/day, 7000 Blocks/day
4	Wastewater Generation	---- 32 KLD Domestic Wastewater	96 KLD (Industrial) 16 KLD (Domestic)
5	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	NO (as per Online Form I)	YES (List is submitted)
6	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	NO (as per Online Form I)	YES (List is submitted)
7	Inland, coastal, marine, or underground waters	NO (as per Online Form I)	YES (List is submitted)
8	State, National boundaries	NO (as per Online Form I)	YES Goa-Karnataka Interstate Boundary 10.95 Km -E
9	Densely populated or built-up area	NO (as per Online Form I)	YES Sanguem - 4.87 Km - S
10	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	NO (as per Online Form I)	YES (List is submitted)
11	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	NO (as per Online Form I)	YES (List is submitted)

Revised Environmental site settings:

S. No	Particulars	Details	Remarks
i.	Total land	Total land: 17.59 ha (43.47 acres) (Private Land)	The expansion will take place in the existing land.
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	It is a Private Land under the possession of Goa Sponge and Power Limited. The expansion will take place in the existing land. No extra land is required for the proposed expansion.	
iii.	Existence of habitation &	R & R is not applicable	

<table>
<tr><th>S. No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td>involvement of R & R, if any</td><td>Study Area: Areas occupied by sensitive man-made land uses
<table>
<tr><th>Name</th><th>Distance (Kms)</th><th>Direction</th></tr>
<tr><td colspan="3">Hospitals</td></tr>
<tr><td>Harsing Sub Health Centre</td><td>3.03</td><td>NW</td></tr>
<tr><td>Sonu Kamat Hospital</td><td>3.86</td><td>SW</td></tr>
<tr><td>Primary Health Centre Sanguem</td><td>5.6</td><td>S</td></tr>
<tr><td colspan="3">Schools & Colleges</td></tr>
<tr><td>The Kings School</td><td>14.73</td><td>W</td></tr>
<tr><td>Manovikas Engineering and Medical School</td><td>16.70</td><td>W</td></tr>
<tr><td>Govt. College of Arts, Science and Commerce</td><td>9.4</td><td>SW</td></tr>
<tr><td>Bengal Education College</td><td>8.2</td><td>NE</td></tr>
<tr><td colspan="3">Places of Worship & Others</td></tr>
<tr><td>Big Church</td><td>3.03</td><td>NW</td></tr>
<tr><td>Our Lady of Succour Church</td><td>44.81</td><td>NW</td></tr>
</table></td><td></td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all corners of the project site.</td><td>
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>A</td><td>15°16'45.01"N</td><td>74° 8'37.67"E</td></tr>
<tr><td>B</td><td>15°16'46.32"N</td><td>74° 8'43.41"E</td></tr>
<tr><td>C</td><td>15°16'43.09"N</td><td>74° 8'44.74"E</td></tr>
<tr><td>D</td><td>15°16'42.75"N</td><td>74° 8'48.92"E</td></tr>
<tr><td>E</td><td>15°16'39.41"N</td><td>74° 8'50.42"E</td></tr>
<tr><td>F</td><td>15°16'39.82"N</td><td>74° 8'54.82"E</td></tr>
<tr><td>G</td><td>15°16'35.29"N</td><td>74° 8'57.48"E</td></tr>
<tr><td>H</td><td>15°16'37.96"N</td><td>74° 9'2.44"E</td></tr>
<tr><td>I</td><td>15°16'37.19"N</td><td>74° 9'3.18"E</td></tr>
<tr><td>J</td><td>15°16'37.42"N</td><td>74° 9'3.66"E</td></tr>
<tr><td>K</td><td>15°16'38.56"N</td><td>74° 9'2.82"E</td></tr>
<tr><td>L</td><td>15°16'47.46"N</td><td>74° 8'58.64"E</td></tr>
<tr><td>M</td><td>15°16'50.95"N</td><td>74° 9'1.47"E</td></tr>
<tr><td>N</td><td>15°16'52.66"N</td><td>74° 9'0.17"E</td></tr>
<tr><td>O</td><td>15°16'48.15"N</td><td>74° 8'42.95"E</td></tr>
<tr><td>P</td><td>15°16'46.69"N</td><td>74° 8'38.59"E</td></tr>
</table></td><td></td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>47 – 87 m above mean sea level</td><td></td></tr>
<tr><td>vi.</td><td>Involvement of Forest Land if any</td><td>No forest land is involved</td><td></td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Project site: Nil

Study area:
<table>
<tr><th>Water body</th><th>Distance (Km)</th><th>Direction</th></tr>
<tr><td>Salaulim Dam</td><td>7.36</td><td>SE</td></tr>
<tr><td>Guloli River</td><td>6.7</td><td>S</td></tr>
<tr><td>Kushavali or Paroda River</td><td>7.52</td><td>W</td></tr>
</table></td><td></td></tr>
</table>

S. No	Particulars	Details			Remarks
		Sanguem or Zuvari River	2.58		SW
		Dudhsagar River	6.30		N
		Moisal Dam	3.72		W
		Lakes			
		Lake near Chandar	12.04		W
		Macazana Lake	9.50		W
		Communidade Lake	11.33		W
		Curtorim Lake	13.17		W
		Raitollem Lake	13.24		W
		Chandor Lake	9.89		W
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	**Name**	**Distance (Km)**	**Direction**	
		Netravali Wildlife Sanctuary (Sindh Dongar)	6.45	SE	
		Dabonxir Borga Dongor - RF	12.50	SW	
		Deusa Temb-RF	12.65	SW	
		Vasali Dongar -RF	7.10	SW	
		Bhagwan Mahavir Wildlife Sanctuary	1.19	E	
		Reserve Forest near Kashti	0.60	SE	
		Reserve Forest -Guddemal	0.025	NW	
		Reserve Forest - Ambeudeak	0.50	N	
		Reserve Forest - Periudak	1.0	N	
		Reserve Forest-Dakarkond	1.0	NE	
		Reserve Forest -Bandoli	2.40	NW	
		Reserve Forest -Tola	9.0	NW	
		Reserve Forest –Bivol	6.66	NW	

23.7.5 It is reported that there is no change in plant configuration and Production capacity after amendment.

23.7.6 **Reason for Amendment for TOR:**

- Started work on site without Environmental Clearance after obtaining Consent to Establish from Goa State Pollution Control Board.
- There are Changes in Total Site area, Wastewater generation and Environmental Sensitivity.

<table>
<tr><th>Details mentioned</th><th>Form I submitted on dated.04.06.2018</th><th>PFR submitted on 04.06.2018</th><th>Draft EIA submitted for Public Consultation dated 10.01.2022</th><th>Presentation in Public Consultation dated 19.07.2022</th><th>Revised Form I for ToR Amendment dated: 30.12.2022</th><th>Revised PFR for ToR Amendment dated: 30.12.2022</th></tr>
<tr><td>Site Area</td><td>Drawing Submitted with a total area of 15.2 ha while description indicates 5ha of industrial land. Notification of Government of Goa (dt. 06.03.2003) indicating total land area of 1,80,000 m^2 containing 50,000 m^2 of industrial area.</td><td><table><tr><th>Area</th><th>Unit (m^2)</th></tr><tr><td>Total plot area</td><td>50,000</td></tr><tr><td>Total covered area</td><td>14689.65</td></tr><tr><td>Existing coverage</td><td>29%</td></tr><tr><td>Proposed coverage for rolling mill</td><td>1500</td></tr><tr><td>Green Belt area</td><td>7000</td></tr></table>Ref: PFR page no. 14 of 17, under 5 (iii).</td><td>Total Land area is 1,75,953 m^2, i.e 17.59 ha.

Ref: Draft EIA report, Page no. 19 Table E.4. and Annexure VI providing land documents.</td><td>Total Land area is 1,75,953 m^2, i.e 17.59 ha.

Ref: PPT of slide no.8. The same was explained during public hearing (Source: Video recording of public hearing)</td><td>Total Land area is 1,75,953 m^2, i.e 17.59 ha.

Ref: Appendix I Form 1, under Basic information, point no.3. Based on land document provided by project proponent- submitted as part of EDS reply.</td><td>Total Land area is 1,75,953 m^2, i.e 17.59 ha.

Ref: Revised PFR page no. 7 (Table 1.4). Based on land document provided by project proponent.</td></tr>
<tr><td>Greenbelt /Area</td><td>---</td><td>7000 m^2
Ref: PFR page no. 14 of 17, under 5 (iii)</td><td>Green area after expansion is 61590 m^2 (35%)
Ref: Draft EIA report, Page no. 19 Table E.4.</td><td>Green area after expansion is 61590 m^2 (35%)
Ref: PPT of slide no.8</td><td>---</td><td>Green area after expansion is 61590 m^2 (35%)
Ref: Revised PFR page no. 7 (Table 1.4)</td></tr>
<tr><td>Production capacity</td><td>35000 TPA
Ref: Online Appendix I Form 1, under Basic information, point no.3.
Sponge iron manufacturing – 90000 TPA (existing) + 35000 TPA</td><td>Sponge Iron: 1,25,000 TPA, Induction furnace and billet caster: 425 TPD (12 T & 15 T Induction furnace),
Captive power: 12.5 MW, Direct charging hot rolling mill: 425 TPD after expansion.
Ref: PFR page no. 6 of 17, under 3 (iv)</td><td>Sponge Iron: 1,25,000 TPA, MS billets: 1,25,000 TPA, Billet caster: 416 TPD, Captive power: 12.5 MW, Direct charging hot rolling mill:1,27,500 TPA (425 TPD), Fly ash autoclave brick and block manufacturing: 40 TPD 35000 Bricks/day, 7000</td><td>Sponge Iron: 1,25,000 TPA, MS billets: 1,25,000 TPA, billet caster: (12 T & 15 T, Captive power: 12.5 MW, Direct charging hot rolling mill:1,27,500 TPA (425 TPD), Fly ash autoclave brick and block manufacturing: 40 TPD 35000 Bricks/day, 7000</td><td>Sponge Iron Plant From 90,000 to 1,25,000 TPA, Induction Furnace & Billet Caster from 2x12T (300 TPD) To 1x12T, 1x15T (416 TPD), Captive Power Plant from 12 to 12.5 MW, Addition of Hot Rolling Mill including galvanizing 425 TPD, & Fly Ash Brick</td><td>Sponge Iron Plant From 90,000 to 1,25,000 TPA, Induction Furnace & Billet Caster from 2x12T (300 TPD) To 1x12T, 1x15T (416 TPD), Captive Power Plant from 12 to 12.5 MW, Addition of Hot Rolling Mill including galvanizing 425 TPD, & Fly Ash Brick</td></tr>
</table>

Details mentioned	Form I submitted on dated.04.06.2018	PFR submitted on 04.06.2018	Draft EIA submitted for Public Consultation dated 10.01.2022	Presentation in Public Consultation dated 19.07.2022	Revised Form I for ToR Amendment dated: 30.12.2022	Revised PFR for ToR Amendment dated: 30.12.2022
	(proposed) = 125000 (Final) **Ref: Online Appendix I Form 1, under Activity, point no. 1, S. No. 1.13.**		Blocks/day after expansion. **Ref: Draft EIA report, Page no. 32 and 33, Table no. 1.1.**	Blocks/day after expansion. **Ref: PPT of slide no.2**	Manufacturing Unit 1000-1200 Bricks/Hr. **Ref: Appendix I Form 1, under Basic information, S. no.1.**	Manufacturing Unit 1000-1200 Bricks/Hr. **Ref: Revised PFR page no. 2 and 3 (Table 1.1).**
Equipment	12 T induction furnace. **Ref: Online Appendix I Form 1, under Activity, point no.4, S. No. 4.8.**	Induction furnace and Billet caster: 425 TPD (12 T & 15 T Induction furnace), Direct charging hot rolling mill: 425 TPD. **Ref: PFR page no. 2 of 17, under 1.**	1 x 350T DRI Kiln, x 15T & 1 x 12T Induction Furnace, 6/11 METRE RADIUS 2 STRANDS CCM billet caster and Hot Rolling Mill (425 TPD) after expansion. **Ref: Draft EIA report, Page no. 32 and 33, Table no. 1.1.**	Sponge Iron: 1,25,000 TPA, MS billets: 1,25,000 TPA, billet caster: (12 T & 15 T, Captive power: 12.5 MW, Direct charging hot rolling mill:1,27,500 TPA (425 TPD), Fly ash autoclave brick and block manufacturing: 40 TPD 35000 Bricks/day, 7000 Blocks/day after expansion. **Ref: PPT of slide no.2**	1 x 350T DRI Kiln, x 15T & 1 x 12T Induction Furnace, 6/11 METRE RADIUS 2 STRANDS CCM billet caster and Hot Rolling Mill (425 TPD) after expansion. **Ref: Appendix I Form 1, under Basic information, S. no.1.**	Sponge Iron Plant From 90,000 to 1,25,000 TPA, Induction Furnace & Billet Caster from 2x12T (300 TPD) To 1x12T, 1x15T (416 TPD), Captive Power Plant from 12 to 12.5 MW, Addition of Hot Rolling Mill including galvanizing 425 TPD, & Fly Ash Brick Manufacturing Unit 1000-1200 Bricks/Hr. **Ref: Revised PFR page no. 2 and 3 (Table 1.1).**
Water Requirement	20 KLD. **Ref: Online Appendix I Form 1, under Activity, point no.2, S. No. 2.2.**	Current water demand is 1450 KLD. With increase in expansion the water requirement will increase by 20 KLD. **Ref: PFR page no. 10 of 17, under 3 (viii).**	1436 KLD. **Ref: Draft EIA report, Page no. 88, Table no. 2.13.**	1436 KLD.	1436 KLD. **Ref: Appendix I Form 1, under Basic information, S. no.2.2.**	1436 KLD. **Ref: Revised PFR page no. 18 (Table 3.5).**

Details mentioned	Form I submitted on dated.04.06.2018	PFR submitted on 04.06.2018	Draft EIA submitted for Public Consultation dated 10.01.2022	Presentation in Public Consultation dated 19.07.2022	Revised Form I for ToR Amendment dated: 30.12.2022	Revised PFR for ToR Amendment dated: 30.12.2022
Wastewater generation	Not mentioned	Not mentioned	Utility blowdown: 96 KLD, Domestic : 16 KLD. **Ref: Draft EIA report, Page no. 215-216, Table no. 4.9.**	--	Not mentioned	Utility blowdown: 96 KLD, Domestic: 16 KLD. **Ref: Revised PFR page no. 34 (Table 3.9).**
Environmental Sensitivity - **Appendix I Form 1, under Environmental Sensitivity**						
Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	**No**	**No**	**No**	--	**No**	No
Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	**No**	**No**	**Yes** **Ref: Draft EIA report, Page no. 16, Table no. E.2.**	--	**YES**	**Yes** **Ref: Revised PFR page no. 4 (Table 1.3).**
Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	**No**	No	**Yes** **Ref: Draft EIA report, Page no. 16, Table no. E.2.**	--	**YES**	**Yes** **Ref: Revised PFR page no. 4 (Table 1.3).**
Inland, coastal, marine or underground waters	**No**	No	**Yes** **Ref: Draft EIA report, Page no. 16, Table no. E.2.**	--	**YES**	**Yes** **Ref: Revised PFR page no. 4 (Table 1.3).**
State, National boundaries	No	No	**Yes** **Ref: Draft EIA report, Page no. 16, Table no. E.2.**	--	**YES**	**Yes** **Ref: Revised PFR page no. 4 (Table 1.3).**
Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	**No**	No	No	--	**NO**	No
Defense installations	**No**	No	No	--	**NO**	No

Details mentioned	Form I submitted on dated.04.06.2018	PFR submitted on 04.06.2018	Draft EIA submitted for Public Consultation dated 10.01.2022	Presentation in Public Consultation dated 19.07.2022	Revised Form I for ToR Amendment dated: 30.12.2022	Revised PFR for ToR Amendment dated: 30.12.2022
Densely populated or built-up area	**No**	No	**Yes** **Ref: Draft EIA report, Page no. 16, Table no. E.2.**	--	**YES**	**Yes** **Ref: Revised PFR page no. 4 (Table 1.3).**
Areas occupied by sensitive man-made land uses *(hospitals, schools, places of worship, community facilities)*	**No**	No	Yes **Ref: Draft EIA report, Page no. 186, Table no. 3.26.**	--	**YES**	**Yes** **Ref: Revised PFR page no. 4 (Table 1.3).**
Areas containing important, high quality or scarce resources *(ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)*	**No**	No	**Yes** **Ref: Draft EIA report, Page no. 16, Table no. E.2.**	--	**YES**	**Yes** **Ref: Revised PFR page no. 4 (Table 1.3).**
Areas already subjected to pollution or environmental damage. *(those where existing legal environmental standards are exceeded)*	**No**	No	No	--	**NO**	No
Areas susceptible to natural hazard which could cause the project to present environmental problems (*earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions*)	**No**	No	Yes **Ref: Draft EIA report, Page no. 102, S. No. 3.2.4**	--	**YES**	**Yes** **Ref: Revised PFR page no. 4 (Table 1.3).**

Note: *PP has further submitted the following:*

It may be noted that the land area mentioned in the form I and PFR submitted was 5 ha while the evidence of land holding indicates 18 ha while the site plan and KML file indicates 15.2 ha of site area. The legend mentioned in the site plan however indicates 5 ha of site area. There may have been confusion from the previous consultant while submitting form I and PFR. However, the draft EIA submitted for public consultation indicated the exact area 17.59 ha mentioning the site surroundings with respect to environmental sensitivity. The site plan mentioned in draft EIA presented the correct shape of land. The revised form I and revised PFR submitted to obtain TOR amendments mention the land area as 17.59 ha with the correct KML file.

Hence PP requests for TOR amendments as the same were mentioned in the draft EIA submitted for public consultation, and revised Form I, Revised PFR and Form 3 submitted for TOR amendment.

Written representations:

23.7.7 During the meeting, based on the deliberations made by the EAC, the project proponent vide email dated 15.02.2023 submitted the details w.r.t. Site Area, Greenbelt/Area, production capacity, equipment, water requirement, wastewater generation, environmental sensitivity etc. at various stages viz., Form I and PFR submitted for ToR, Draft EIA submitted for PH, PH Presentation, Revised Form I and PFR for TOR Amendment.

Deliberation by the Committee

23.7.8 The Committee noted the following:

i. M/s. Goa Sponge & Power Limited had earlier applied for grant of ToR vide proposal no. IA/GA/IND/75297/2018 dated 04.06.2018 for capacity enhancement of Sponge Iron manufacturing and Induction Furnace with new Hot Rolling Mill located at Sanguem Municipal Council, Sangueum, Goa. Accordingly, Terms of Reference was issued by MoEF&CC vide letter no. IA-J-11011/246/2018-IA. II(I) dated 30.07.2018.

ii. The instant proposal is for seeking amendment in ToR dated 30.07.2018 w.r.t. Total Site Area, Wastewater generation and Environmental Sensitivity and for appraisal of proposal under violation category as per the provisions contained in the MoEF&CC Standard Operating Procedure dated 07.07.2021 as PP started work on site without Environmental Clearance after obtaining Consent to Establish from Goa State Pollution Control Board. The changes are detailed in para 23.7.4 above for the reasons stated in para 23.7.6 above.

iii. The EAC also advised that since ToR was granted on 30.07.2018, therefore considering the validity of the ToR, complete application for EC shall be made well within the validity period of ToR for consideration of the Ministry.

iv. It is reported that Bhagwan Mahavir Wildlife Sanctuary is at a distance of 1.19 km in the East direction and Netravali Wildlife Sanctuary (Sindh Dongar) is at a distance of 6.45 Km in SE direction. It is also reported by the PP that the project is outside of ESZ.

v. There are number of ESA's including schools, hospitals, places of worship in the vicinity within the study area of the project site.

vi. Sanguem or Zuvari River is at a distance of 2.58 km in the SW direction of the project site. The EAC is of the opinion that river shall not be disturbed. Mitigation measures w.r.t. safeguarding the river shall be prepared.

vii. The EAC also deliberated on the written submission of project proponent and found it satisfactory.

Recommendations of the Committee

23.7.9 After deliberations, the Committee **recommended** the proposal **subject to uploading the written information on Parivesh portal** for amendment in ToR granted vide File no. IA-J-11011/246/2018-IA. II(I) dated 30.07.2018 w.r.t. change in Total Site Area, Wastewater generation and Environmental Sensitivity as detailed in para 23.7.4 above subject to stipulation of following additional conditions:

i. PP needs to comply all the points of TOR for Violation Project and follow SOP dated 07.07.2021 issued by the Ministry of Environment, Forest & Climate Change, for identification & handling of Violation cases under EIA notification 2006.

ii. The State Government/SPCB to take action against the project proponent under the provisions of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC for the Unit which violated under the provision of the EIA Notification 2006 i.e. 1.4 MTPA Iron Ore Pellet Plant.

iii. Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).

iv. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.

v. The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter (13) in the EIA report by the accredited consultants.

vi. Budget of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be completed within three years and to be prepared accordingly.

vii. The project proponent shall require to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the CPCB prior to the grant of EC as per SOP dated 07.07.2021. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.

viii. Project proponent shall implement penalty provisions i.e., 1% of project cost attributable to the expansion, incurred up to the date of filing of application along with the EIA/EMP report as contained in the paragraph 12 of the Standard Operating Procedure dated 7/07/2021 shall be complied with.

ix. Bhagwan Mahavir Wildlife Sanctuary is at a distance of 1.19 km in the East direction and Netravali Wildlife Sanctuary (Sindh Dongar) is at a distance of 6.45 Km in SE direction. PP shall submit the certificate certifying the distance of Wildlife Sancrtuaries and their ESZ from the project site along with the authenticated map from State Forest Department and also ensuring the coordinates of the project site are mentioned in the certificate.

x. There are number of ESA's including schools, hospitals, places of worship in the vicinity within the study area of the project site. Project Proponent shall prepare an action plan for environmental safeguard measures to minimise the impact on the habitation of the locals.

xi. Sanguem or Zuvari River is at a distance of 2.58 km in the SW direction of the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

***

DAY 2: FEBRUARY 15, 2023 (WEDNESDAY)

Consideration of Environmental Clearance Proposals

Agenda No. 23.8

23.8 Proposed increase in capacity of existing Secondary Steel Mill of M.S. Billets (28,080 TPA-1,56,000 TPA) by installing an additional 1 X 15 TPH Electric Induction Furnace in addition to existing 1 X 15 TPH & TMT Bars from 29,000 TPA to 1,44,000 TPA by installing additional Strands within existing plant area of 6.92 Ha., by M/s Sakthi Ferro Alloys India Private Ltd., located at Survey No 15/1, 15/3, 16, 17/1, 17/2, 17/3, 17/5, 17/6, 17/7, 17/8a, 17/9, 152/32 of Vasanadu Gollapalle Village, Nadumuru, Kuppam, Chittoor, Andhra Pradesh- Consideration of Environmental Clearance.

[Proposal No. IA/AP/IND1/414269/2023; File No. IA-J-11011/166/2019-IA-II(IND-I)] [Consultant: Chennai Testing Laboratory Private Limited; Valid upto 15.08.2023]

23.8.1 M/s. Sakthi Ferro Alloys (India) Private Limited has made an online application vide proposal no. IA/AP/IND1/414269/2023 dated 31.01.2023 along with copy of EIA/EMP report, Forms (Part A, B and C) seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. . 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and attracts general condition due to interstate boundary i.e. Tamil Nadu-Andhra Pradesh in 5 km radius and being appraised at central level.

23.8.2 Name of the EIA consultant: M/s. Chennai Testing Laboratory Private Limited [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA00152; Valid up to 15.08.2023, as on February 16, 2023].

Details submitted by Project proponent

23.8.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
10.04.2019	8th meeting of EAC Industry -I held on 26.06.2019	Terms of Reference	06.08.2019	05.08.2023

23.8.4 The project of M/s Sakthi Ferro Alloys India Private Ltd., located at Survey No 15/1, 15/3, 16, 17/1, 17/2, 17/3, 17/5, 17/6, 17/7, 17/8a, 17/9, 152/32 of Vasanadu Gollapalle Village, Nadumuru, Kuppam, Chittoor, Andhra Pradesh is for increase in capacity of existing Secondary Steel Mill of M.S. Billets (28,080 TPA- 1,56,000 TPA) by installing an additional 1 X 15 TPH Electric Induction Furnace in addition to existing 1 X 15 TPH & TMT Bars from 29,000 TPA to 1,44,000 TPA by installing additional Strands within existing plant area of 6.92 Ha.

23.8.5 Environmental Site Settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>1.</td><td>Total land</td><td>6.92 ha [Private: 4.50ha; fully owned,
Govt: 2.42 ha (under alteration to Sakthi Ferro Alloy)]</td><td>Land use: Industrial</td></tr>
<tr><td>2.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014.</td><td>Land already under the possession of the company.</td><td>-</td></tr>
<tr><td>3.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>R&R is not involved.

Plant Site: Vasanadu Gollapalle Village.
Study Area:
<table>
<tr><th>Village/ Town</th><th>Distance (Km)</th><th>Direction</th><th>Population</th></tr>
<tr><td>Gollapalle</td><td>0.10</td><td>NE</td><td>40</td></tr>
<tr><td>Jogeedlu</td><td>0.20</td><td>WSW</td><td>25</td></tr>
<tr><td>Bodaguttapalli</td><td>1.0</td><td>N</td><td>237</td></tr>
<tr><td>Nadimuru</td><td>2.0</td><td>SW</td><td>1570</td></tr>
<tr><td>Paipalayam</td><td>2.5</td><td>SSE</td><td>2139</td></tr>
<tr><td>Vasanadu</td><td>1.0</td><td>ENE</td><td>2707</td></tr>
<tr><td>Chinna Vasanadu</td><td>1.5</td><td>SE</td><td>2270</td></tr>
<tr><td>Pedda Gopanapalli</td><td>3.0</td><td>SSE</td><td>799</td></tr>
<tr><td>Vendugampalli</td><td>3.5</td><td>NNW</td><td>2215</td></tr>
<tr><td>Kuppam Town</td><td>6.0</td><td>NNW</td><td>21963</td></tr>
</table></td><td>Proposed Expansion will be within the Existing plant site, and within the existing land area,and hence No R&R issue is involved.</td></tr>
<tr><td>4.</td><td>Latitude and Longitude of all corners of the project site</td><td>
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1.</td><td>12°41’45.55” N</td><td>78°20’59.84” E</td></tr>
<tr><td>2.</td><td>12°41’44.49” N</td><td>78°21’07.25” E</td></tr>
<tr><td>3.</td><td>12°41’35.87” N</td><td>78°21’03.58” E</td></tr>
<tr><td>4.</td><td>12°41’37.65” N</td><td>78°20’57.33” E</td></tr>
</table></td><td>-</td></tr>
<tr><td>5.</td><td>Elevation of the project site</td><td>699 m above mean sea level.</td><td>-</td></tr>
<tr><td>6.</td><td>Involvement of Forest land if any.</td><td>No Forest Land is involved in the project site.</td><td>-</td></tr>
<tr><td>7.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Plant site: No water body exists within the plant site.
Study area: Following water body fall within 10 km radius:
<table>
<tr><th>Water body</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td colspan="3">Lakes</td></tr>
<tr><td>Chinna Vasanadu</td><td>1</td><td>E</td></tr>
<tr><td>Pedda Bangaru Natham</td><td>3.5</td><td>NE</td></tr>
<tr><td>Vendugampalli</td><td>3.5</td><td>NNW</td></tr>
<tr><td>Beradhanapalli</td><td>3.0</td><td>N</td></tr>
<tr><td>Paipalayam</td><td>1.5</td><td>S</td></tr>
<tr><td>Dalavaikottapalli</td><td>7.0</td><td>NNW</td></tr>
<tr><td>Gundlasagaram</td><td>7.5</td><td>NNW</td></tr>
<tr><td colspan="3">Ponds</td></tr>
<tr><td>Chinna Mankala Doddi</td><td>1.5</td><td>ENE</td></tr>
<tr><td>Attiyur</td><td>2.0</td><td>NE</td></tr>
</table></td><td>-</td></tr>
</table>

S. No.	Particulars	Details			Remarks
		Paramasamudram	4.0	NW	
		Rambahadur	1.5	SSW	
		Thangadikuppam	2.0	SE	
		Rajanam	7.5	NW	
		Malakothamuru	7.0	N	
		Ramnagara	8.0	NNW	
		River			
		Palar	8.5	NE	
8.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area.	No Notified ESZ Within 10 Km Radius of Plant site **List of Reserved forests:** • Maharajkadai RF - 7.5 km, SW • Neralakotta RF- 5.0 km, S • Chadamuru RF, 8.0 km, SE • Kurumanipalli-Nadimuru RF - 2.5 km, SW			-

23.8.6 The existing plant is operating with a valid consent to operate and is valid until 31/03/2026, and was issued by Andhra Pradesh Pollution Control Board vide CTR-278/APPCB/ZO-KNL/CFO&HWM/2020 dated 26.03.2021. Environment Clearance was not applicable for the existing unit as the capacity of production at present is < 30000 TPA, which therefore had not attracted EIA Notification, 2006.

23.8.7 Implementation status of the existing EC:

S. No.	Facilities	Units	As per EC dated	Implementation Status	Production as per CTO
1	MS Billets	[1 x 15 TPH, Electric Induction Furnace]	---	In Operation	28,080 TPA
2	Rolled Products - TMT Bars	Rolling Mill	---	In Operation	29,000 TPA

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

Sl. No.	Plant Equipment/ Facility	Existing facilities As per CTO		Proposed Units		Final (Existing + Proposed)	
		Config.	Capacity [TPA]	Config.	Capacity [TPA]	Config.	Capacity [TPA]
1	MS Billets [Electric Induction Furnace]	1 x 15 TPH	28080	1 x 15 TPH	127920	2 x 15 TPH	156000
2	Rolled Products (Rolling Mill) TMT Bars	-	29000	-	115000	-	144000

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

S. No.	Raw Material	Quantity required per annum			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Expansion	Total			
1	M.S. Scrap	27801	125289	153090	Indigenous/ Imported	250	Road/ Ship
2	Sponge Iron	3089	13921	17010	Indigenous	300	Road

23.8.10 The total raw water requirement upon expansion will be 54 KLD. This will be met from ground water, for which Ground Water Clearance has been obtained from Government of Andhra Pradesh, Ground Water and Water Audit Department. Vide Lr. No. 604/Hg/2022, Dated 25.08.2022.

23.8.11 The entire power requirements in existing, and after expansion are 2.06 MW and 13.82 MW respectively. After expansion 13.82 MW will be sourced from APSPDCL.

23.8.12 Baseline Environmental Studies:

Period	Post Monsoon Season (20/12/2019 To 20/03/2020)
AAQ parameters at 8 locations	• $PM_{2.5}$ - 10 to 32 µg/m^3 • PM_{10} – 32 to 72 µg/m^3 • SO_2 - 6.1 to 24.6 µg/m^3 • NO_2 - 10.2 to 31.7 µg/m^3 • CO - BDL
Incremental GLC level	• PM = 2.51 µg/m^3 • SO2 = 0.97 µg/m^3 • NOx = 4.4 µg/m^3
Ground water quality at 04 locations	• pH: 7.7 - 8.0 • Total Hardness: 24 - 692 mg/l, • Chlorides: 59 - 403 mg/l, • Fluoride: BDL - 1.5 mg/l. • Heavy metals: BDL.
Surface water quality at 8 locations	• pH: 7.3 - 8.6, • DO: 5.5 – 6.5 mg/l, • BOD: 2 - 17 mg/l, • COD: 12 to 68 mg/l
Noise levels at 08 locations	Day Time - 32.8 to 54.6 dB (A) Night Time - 26.6 to 44.5 dB (A)
Traffic assessment study findings	▪ The transportation of both raw materials into the site and products will be entirely by road i.e. 100% ▪ And traffic study was conducted at NH 42 connecting Krishnagiri & Anthapur at Kuppam Junction, which is 6 kms from the project site, SH 169 connecting Nadimuru Cross Junction and Vasanadu near the project site. Bevenapalli Junction ie SH-514 Nattrampalli-Tiruppattur-Kuppam Road, and at Vijilapuram Junction ie SH-431 near Kuppam Bus Stand. **Exisiting**

Road	V	C	Existing	LOS

		(Volume in PCU/hr.)	**(Capacity in PCU/hr.)**	**V/C Ratio**	
	Kuppam Junction on NH42	262	3600 (4 lane divided – Two Way)	0.0728	A
	Nadimuru Cross Road Junction ie on SH-169 to vasanadu	73	1500 (2 lane – Two Way)	0.0487	A

PCU load after proposed expansion project will be 262 (Existing) + 4 (Additional) on NH-42 at Kuppam Junction & 73 (Existing) + 4 (Additional) on SH-169 At Nadimuru Cross Road Junction. Hence, modified traffic scenario

After Expansion

Road	**V (Volume in PCU/hr.)**	**C (Capacity in PCU/hr.)**	**Existing V/C Ratio**	**LOS**
Kuppam Junction on NH42	262 + 4 = 266	3600 (4 lane divided – Two Way)	0.0739	A
Nadimuru Cross Road Junction ie on SH-169 to vasanadu	73 + 4 = 77	1500 (2 lane – Two Way)	0.0513	A

Conclusion: Level of service will remain excellent even after expansion as is existing now..

Flora and fauna	No Rare, Endangered, Endemic, or Threatened species observed within the study area.

23.8.13 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S.No	**WASTE CATEGORY**	**WASTE SOURCE**	**WASTE DESCRIPTION**	**QUANTITY (TPA)**	**END USE/ DISPOSAL**
	HAZARDOUS WASTE				
1	5.1	Lubrication/ Maintenance	Used or Spent Oil	0.1	Authorised Waste Oil Recyclers
2	5.2	Lubrication/ Maintenance	Waste Containing Oil	2.0	Incinerated at CPCB Authorised TSDF
	SOLID WASTE				
3	-	Melting Furnace	Slag	5103	Slag will be subjected to Slag Crusher and Supplied to downstream users for use in various construction activities including making of slag cement

23.8.14 Public Consultation:

Details of advertisement given	18.06.2022
Date of Public Consultation	23.07.2022
Venue	Within Existing Plant Premises
Presiding Officer	Revenue District Officer & Additional District Magistrate, Chittoor Dist. AP
Major issues raised	Employment, Pollution, and socio-economic benefit for villages/people around the plant

Action plan as per MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30/09/2020

PUBLIC HEARING ISSUE	RESPONSE	ALLOCATION (Rs. Lakhs) & Or Nos.						TOTAL
		YEARS						
		EXISTING	1	2	3	4	5	
EMPLOYMENT	The present existing plant is already providing employment to 49- Nos of local people, and will provide additionally 10-Nos in the expansion plan, based on their qualification and skill levels, and if anyone in the local village is with higher skill level, they will also be considered and provided opportunity at higher levels.	49-Nos	10	10	10	10	10	99- Nos
	Skill Development Centers			2.0		2.0		4.0
CARBON SEQUESTRATION	Aiding plantation by providing 500-Nos Sapling's each year to villages around to thus promote carbon sequestration and green cover	-	1.0	1.0	1.0	1.0	1.0	5.0
ASSISTANCE TO FARMERS	Poor farmers who will be affected will be provided assistance by way of corpus each year to enable them procure seeds, fertilizers, ploughing equipment's, and also establish drip irrigation systems	-	2.0	2.0	2.0	2.0	2.0	10.0
HEALTH CHECK UPS	All the people in the villages around the plant site will be provided the facility of undertaking regular monthly health check up	-	1.0	1.0	1.0	1.0	1.0	5.0
HEALTH INSURANCE	All the people in the villages around the plant site will be provided the facility to have Health Insurance	-	1.5	1.5	1.5	1.5	1.5	7.5
CONSTRUCTION OF TOILETS	Each year 1-Settlement will be taken up for provision of Public Toilet Facilities	-	1.0	1.0	1.0	1.0	1.0	5.0
INFRA-STRUCTURAL FACILITY TO SCHOOLS	As an when the nearby schools come with requirement of additional infrastructural facility like Buildings, Sheds, Chairs & Benches, Rain Water Harvesting, Library etc.	-	2.0	2.0	2.0	2.0	2.0	10.0

PUBLIC HEARING ISSUE	RESPONSE	ALLOCATION (Rs. Lakhs) & Or Nos.						TOTAL
		YEARS						
		EXISTING	1	2	3	4	5	
INFRA-STRUCTURAL FACILITY TO VILLAGES	Provision of water supply, Laying & Repair of Roads, Building for PDS, Assistance to People by way of financial aid, Desilting of Ponds, Community Programmes etc.	-	2.5	2.5	2.5	2.5	2.5	12.5
		TOTAL	**11.0**	**13.0**	**11.0**	**13.0**	**11.0**	**59.0**

23.8.15 The net present value of the existing plant is Rs 6.38 Crores, and the capital cost of the proposed expansion project is Rs. 14.00 Crores, and the capital cost for environmental protection measures is proposed as Rs. 2.00 Crores. The annual recurring cost towards the environmental protection measures proposed is Rs. 0.74 Crores. The employment generation from the proposed project / expansion is 60-nos, in addition to existing 190-nos. The details of cost for environmental protection measures are as follows:

Environmental Management	Pollution Control Cost (Rs. In Crores)	
	CAPITAL COST	RECURRING COST
Construction Phase		
Site Sanitation Facilities	-	0.15
Air Pollution Control Measures	-	0.10
Operation Phase		
Air Pollution Control Equipment's	1.25	0.20
Waste Water Management	0.06	0.10
Solid Waste Management	0.04	0.10
Personal Protective Equipment	0.35	0.15
Post Project Monitoring	0.15	0.15
Greenbelt Development	0.15	0.04
Total	**2.00**	**0.74**

23.8.16 Existing green belt has been developed in 2.28 ha area which is about 33% of the total project area of 6.92 ha with total sapling of 500-Trees, and has Proposed to plant additionally 5000 – nos of trees in the entire green belt area available all-round the plant consisting of at least 3 tiers as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare.

23.8.17 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

Certified compliance report from Regional Office

23.8.18 The Status of compliance to the existing consent to operate was obtained from Andhra Pradesh Pollution Control Board vide letter no. Lr.No.C-2678/APPCB/RO/TPT/CFO/2022-2005 dated 28.10.2022 in the name of M/s. Sakthi Ferro Alloys India Private Limited, and all the conditions with respect to the existing conditions of consent to operate have been fully complied with as per the certified compliance report given by APPCB.

Deliberations by the Committee

23.8.19 The Committee noted the following:

1. The instant proposal is for increase in capacity of existing Secondary Steel Mill of M.S. Billets (28,080 TPA- 1,56,000 TPA) by installing an additional 1 X 15 TPH Electric Induction Furnace in addition to existing 1 X 15 TPH & TMT Bars from 29,000 TPA to 1,44,000 TPA by installing additional Strands within existing plant area of 6.92 Ha.
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. Total proposed land area is 6.92 ha out of which 4.50 ha is private land and 2.42 ha is Govt land (under alteration to Sakthi Ferro Alloy). The complete land is under the possession of the company.
6. The nearest habitation to plant are Vasanadu Gollapalle Village, Gollapalle (0.10 km, NE), Jogeedlu (0.20 km, WSW), Bodaguttapalli (1.0 km, N), Nadimuru (2.0 km, SW), Paipalayam (2.5 km, SSE), Vasanadu (1.0 km, ENE) and Chinna Vasanadu (1.5 km, SE).
7. There are various lakes, ponds and also Palar River (8.5 km) within the study area of 10 km from the project site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
8. The water requirement for the proposed project of 54 KLD, is proposed to be met ground water.
9. Existing green belt has been developed in 2.28 ha area which is about 33% of the total project area of 6.92 ha with total sapling of 500-Trees, and has Proposed to plant additionally 5000 – nos of trees in the entire green belt area available all-round the plant

consisting of at least 3 tiers as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare.

10. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
11. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
12. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
13. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
14. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.
15. The EAC observed that the Consultant has made good quality of presentation and appreciated the work done by the Consultant for EIA/EMP Report and presentation.

Recommendations of the Committee

23.8.20 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements:

A. <u>Specific conditions:</u>

(i) The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(iii) The nearest human settlement from the site are Vasanadu Gollapalle Village, Gollapalle (0.10 km, NE), Jogeedlu (0.20 km, WSW), Bodaguttapalli (1.0 km, N), Nadimuru (2.0 km, SW), Paipalayam (2.5 km, SSE), Vasanadu (1.0 km, ENE) and Chinna Vasanadu (1.5 km, SE). Project Proponent shall prepare and implement an action plan for environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include some of these locations in its environmental monitoring programme.

(iv) There are various lakes, ponds and also Palar River (8.5 km) within the study area of 10 km from the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

(v) 54 KLD of total water to be obtained from ground water only after obtaining necessary permission from the Competent Authority. PP shall explore the possibility of shifting to alternate source of water to reduce dependency on ground water.

(vi) Three tier Green Belt shall be developed covering at least 33% of the total project area in a time period of 1 year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. PP shall develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy alongwith windshield inside the plant premises to act as green barrier for air pollution & noise levels towards Vasanadu Gollapalle Village, Gollapalle (0.10 km, NE), Jogeedlu (0.20 km, WSW), Bodaguttapalli (1.0 km, N), Nadimuru (2.0 km, SW), Paipalayam (2.5 km, SSE), Vasanadu (1.0 km, ENE) and Chinna Vasanadu (1.5 km, SE) inside the plant premises. Compliance in this regard shall be submitted to IRO, MoEF&CC.

(vii) Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

(viii) The proposed project shall be designed as "Zero Liquid Discharge" Plant. There shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.

(ix) The PP shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.

(x) All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.

(xi) All internal and connecting road to the Highway shall be black topped/ concreted with suitable load in term of Million Standard Axle (MSA) as per IRC guidelines.

(xii) Performance monitoring of pollution control equipment shall be taken up yearly and compliance status in this regard shall be reported to the concerned Regional Office of the MoEF&CC.

(xiii) Particulate matter emissions from all the stacks shall be less than 30 mg/Nm^3.

(xiv) New furnace shall be equipped with hot charging facility. Hot charging shall be achieved up to 85- 90 % and reheating furnace shall be operated on LDO/LSHS as a fuel. Project

proponent shall explore the possibility to switch over from solid fuel to liquid fuel in the existing reheating furnace.

(xv) Project proponent shall use only bag filter(s), and shall not use wet scrubber.

(xvi) Following additional arrangements to control fugitive dust shall be provided:

a. Fog / Mist Sprinklers at all conveyors point and on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
b. Proper covered vehicle shall be used while transport of materials.
c. Wheel Washing mechanism shall be provided in entry and exit gates.

(xvii) TCLP analysis of the slag shall be carried out periodically. In case of presence of hazardous material, the same shall be sent to TSDF. In case of non-hazardous material, slag shall be utilized for brick manufacturing and construction work after the recovery of metal.

(xviii) A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

(xix) Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, fixing the location of fire water tanks, separate power system for fire fighting, involvement of qualified and trained fire personnel, nearest fire station & time required to reach the proposed site shall be prepared and implemented.

(xx) All the recommendations made in the risk assessment report shall be implemented and compliance status in this regard shall be furnished to the Regional Office of the MoEF&CC along with the six monthly compliance report.

(xxi) All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

(xxii) The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

(xxiii) The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

B. General conditions

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/ Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.

iii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iv. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

v. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.

vii. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.

viii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

ix. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

i. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

ii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
iii. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.

IV. Noise monitoring and prevention

i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures

i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.

VI. Waste management

i. Used refractories shall be recycled as far as possible.
ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused melting Furnaces
iii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration by trees in the plant premises.
ii. Project proponent shall submit a study report within six months on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.
iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.

ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

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

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

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

xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

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

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

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Agenda No. 23.9

23.9 Expansion of existing Sponge Iron plant from 54,000 TPA to 174,000 TPA, Installation of 3 x 20 Ton Induction Furnaces with Billet Caster for production of 174,000 TPA Rolled Products along with 24 MW Captive Power Plant by M/s Sundaram Steels Private Limited, located at B-7, Phase-III, Bokaro Industrial Area, Balidih, Bokaro, Jharkhand- Consideration of Environmental Clearance under violation as per OM dated 07.07.2021.

[Proposal No. IA/JH/IND1/414770/2023; File No. IA-J-11011/128/2010-IA-II(IND-I)]
[Consultant: Vardan Environet; Valid upto 05.05.2023]

23.9.1 M/s Sundaram Steels Pvt Ltd. has made an online application vide proposal no. IA/JH/IND1/414770/2023 dated 18.01.2023 along with copy of EIA/EMP report, Form (A, B and C) and Certified Compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project

activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Captive Power Plant under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

23.9.2 Name of the EIA consultant: M/s. Vardan Environet [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA0158; valid upto 05.05.2023, as on February 16, 2023].

Details submitted by the project proponent

23.9.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
18.04.2019	30.05.2019	Terms of Reference	01.07.2019	30.06.2022
25.10.2022	03.11.2022	Terms of Reference (Amended-under violation)	05.12.2022	30.06.2023

23.9.4 The project of M/s Sundaram Steels Pvt Ltd located in B-7, Phase-III, Bokaro Industrial Area, Balidih, Bokaro, Jharkhand is for enhancement of sponge iron production from 0.054 to 0.174 million tonnes per annum (MTPA), production of 0.18 MTPA Billets (installed under violation) and setting-up of facility for production 0.174 MTPA Rolled Products along with 24MW Captive Power Plant.

23.9.5 Environmental site settings

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>1</td><td>Total land</td><td>25Acers (10.117Ha). [Private: 10.117Ha]</td><td>Landuse: Industrial</td></tr>
<tr><td>2</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>The total land area of 25Acres (10.117Ha) is allotted to M/s Sundaram Steels Pvt Ltd by Bokaro Industrial Area Development Authority, Bokaro on 18.08.2009 for a period of 30 years.</td><td>Expansion project proposed within existing plant premises</td></tr>
<tr><td>3</td><td>Existence of habitation & involvement of R&R, if any.</td><td>R&R is not applicable
Existence of Habitation
Project Site – Nil
Study Area (Nearest)
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Village Koradih</td><td>0.25 km</td><td>East</td></tr>
</table></td><td>--</td></tr>
<tr><td>4</td><td>Latitude and Longitude of all corners of the project site.</td><td>
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>A</td><td>23° 40' 47.229" N</td><td>86° 4' 23.284" E</td></tr>
<tr><td>B</td><td>23° 40' 42.552" N</td><td>86° 4' 23.741" E</td></tr>
<tr><td>C</td><td>23° 40' 41.955" N</td><td>86° 4' 21.915" E</td></tr>
<tr><td>D</td><td>23° 40' 36.675" N</td><td>86° 4' 23.665" E</td></tr>
</table></td><td>--</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>E</td><td>23° 40' 34.041" N</td><td>86° 4' 22.805" E</td></tr>
<tr><td>F</td><td>23° 40' 33.780" N</td><td>86° 4' 16.784" E</td></tr>
<tr><td>G</td><td>23° 40' 39.407" N</td><td>86° 4' 11.831" E</td></tr>
<tr><td>H</td><td>23° 40' 41.592" N</td><td>86° 4' 9.923" E</td></tr>
<tr><td>I</td><td>23° 40' 45.500" N</td><td>86° 4' 14.343" E</td></tr>
</table>
</td><td></td></tr>
<tr><td>5</td><td>Elevation of project site</td><td>232 m above mean sea level</td><td>--</td></tr>
<tr><td>6</td><td>Involvement of Forest land, if any</td><td>No involvement of Forest Land</td><td>--</td></tr>
<tr><td>7</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Project Site: 1 no. RWH Pond
Study area
<table>
<tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Khanjo River</td><td>6.20</td><td>W</td></tr>
<tr><td>River Damodar</td><td>6.75</td><td>NE</td></tr>
<tr><td>Garga River</td><td>6.32</td><td>SSW</td></tr>
<tr><td>Reservoir of Garga Dam</td><td>3.28</td><td>SSW</td></tr>
</table>
</td><td>--</td></tr>
<tr><td>8</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area</td><td>None within 10 km radius study area</td><td>--</td></tr>
</table>

23.9.6 The existing project was accorded environmental clearance vide lr no. J-11011/128/2010-IA-II(I) dated 14th January, 2011 for installation of 2x90 TPD Sponge Iron Plant along with 8 MW Captive Power Plant and amendment on 21st December, 2011 from MoEFCC, New Delhi. Consent To Operate has been issued by Jharkhand State Pollution Control Board vide Ref no. JSPCB/HO/RNC/CTO-10568235/2021/1258 dated 10.10.2021. The validity of CTO is up to 30.06.2024.

23.9.7 Implementation Status of existing EC:

S. No.	Facilities	Units	As per EC dated 14.01.2011	Implementation Status as on 03.02.2023	Production as per CTO	Violation Details
1.	Sponge Iron Plant	2x90 TPD	As per EC dated 14.01.2011 & amendment	Implemented (2x90TPD)	54,000TPA	Production exceeds the limit of 54,000 TPA in the year 2019-20, 2020-21 and 2021-22

S. No.	Facilities	Units	As per EC dated 14.01.2011	Implementation Status as on 03.02.2023	Production as per CTO	Violation Details
2.	Captive Power Plant	8MW	dated 21.12.2011	Not Implemented	--	
3	Induction Furnace	3x20T	No EC/CTE/ CTO obtained	Implemented (Production capacity 180,000TPA)	-	Unit was installed and operated till 30.11.2022 without obtaining prior EC hence violation case
4	Billet Caster	3 strands 9/11m	No EC/CTE/ CTO obtained		-	

23.9.8 The unit configuration and capacity of existing and proposed unit are given as below:

S No.	Plant Equipment/ Facility	Existing Facility as per EC dated 14.01.2011 and subsequent amendment 21.12.2011								Proposed Unit		Final	Remark
		Total		Implemented		Un implemented		As per CTO					
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity		
1.	Sponge Iron Plant	2x90 TPD	54000 TPA	2x90 TPD	54000 TPA	--	--	2x90 TPD	54000 TPA	2x200 TPD	120,000 TPA	174,000 TPA	--
2.	Induction Furnace	--	--	--	--	--	--	--	--	3x20T	--	3x20T	Installed and operated Under Violation
3.	Billet Caster									3 strands 9/11m	180,000 TPA	180,000 TPA	
4.	Rolling Mill	--	--	--	--	--	--	--	--	580 TPD	174,000 TPA	174,000 MS Long Rolled Products	Hot Rolling of Billets
5.	Captive Power Plant	--	8MW	--	--		8 MW	--	--	AFBC 12 MW WHRB 12 MW	24 MW	24 MW	--

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

Sl. No	Raw Material	Existing Non-Violating (TPA)	Existing Under Violation (TPA)	Proposed (TPA)	Total after expansion (TPA)	Source and Distance	Mode of Transport
1.	Iron Ore	86,940	--	193,200	280,140	Barbil, Odisha (250km)	By Road
2.	Non-Coking Coal	70,740	--	157,200	227,940	Northern Coal Field, Madhya Pradesh (458km)	By Road
3.	Dolomite	2,160	--	4,800	6,960	Local / Open Market (10km)	By Road
4.	Purchased + Return Scrap	--	39,600	--	39,600	Local/ Open Market (10km)	By Road
5.	Ferro-alloys	--	3,680	--	3,680	Bihar Foundry & Casting Ltd. Ramgarh (85km)	By Road
6.	Boiler Coal	--	--	63,000	63,000	Northern Coal Field, Madhya Pradesh (458km)	By Road

23.9.10 Existing water requirement is 199 m^3/day (non-violating + violating units), water requirement is obtained from Jharkhand Industrial Area Development Authority (JIADA) and permission for the same has been obtained from JIADA vide letter no. 681 dated 24.09.2021. The water requirement after the proposed expansion is estimated as 906m^3/day, out of which 833m3/day of fresh water requirement will be obtained from the Jharkhand Industrial Area Development Authority (JIADA) and remaining will be recycled water. Drinking water and Sanitation Department, Bokaro has recommended supply of 1500 KLD of surface water from Garga Dam in favour of M/s Sundaram Steels Private Limited vide lr. dated 06.01.2023 to JIADA.

23.9.11 Existing power requirement of 16.0MW (non-violating + violating) is obtained from DVC. The power requirement after the proposed expansion is estimated as 23MW, which will be met from proposed Captive Power Plant of capacity 24.0MW.

23.9.12 Baseline Environmental Studies

Period	1st October 2022 to 31st December 2022	Additional study (if any)
AAQ parameters at 8 Locations (min and max)	• $PM_{2.5}$: 34.1µg/m^3 and 48.8µg/m^3 • PM_{10}: 54.6µg/m^3 and 76.2µg/m^3 • SO_2: 13.0µg/m^3 and 26.7µg/m^3	--

<table>
<tr><th>Period</th><th>1st October 2022 to 31st December 2022</th><th>Additional study (if any)</th></tr>
<tr><td></td><td>• NO_2: 20.5µg/m³ and 31.4µg/m³
• CO: 0.78mg/m³ and 1.45mg/m³</td><td></td></tr>
<tr><td>Incremental GLC level</td><td>• PM_{10} – 1.84689 µg/m³
• $PM_{2.5}$ – 0.79251 µg/m³
• SO_2 – 3.19544 µg/m³
• NOx – 4.39988 µg/m³
• CO – 0.000026 mg/m³
• (All maximum incremental values are at Village Koradih at a distance of 0.7Km)</td><td>--</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>pH -7.59 to 7.75, Total Hardness -204.16 to 287.0 mg/l, Chlorides - 60.47 to 88.23 mg/l, Fluoride- 0.39 to 0.64 mg/l, Zinc – 1.21 to 1.42 mg/l, Fe – 0.17 to 0.34 mg/l</td><td>--</td></tr>
<tr><td>Surface water quality at 8 locations</td><td>pH – 7.63 to 7.84, Dissolved Oxygen – 6.0 to 6.7 mg/l, BOD – 2.4 to 15.0 mg/l, COD – 15.0 to 59.0 mg/l,</td><td>--</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>49.9 to 72.7 dB(A) for day time and 41.7 to 67.9 dB(A) for night time</td><td>--</td></tr>
<tr><td>Traffic assessment study findings</td><td>• Traffic study has been conducted at NH-320 which is at 2.40km from the project site.
• Transportation of Raw material, Fuel and Finished product will be done by 100% by Road
• Existing PCU is 137 PCU/hr on NH-320 and existing level of service (LOS) is B
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>NH-320</td><td>137</td><td>625</td><td>0.22</td><td>B</td></tr>
</table>
• PCU load after proposed project will be 147 PCU/hr. (Existing 137 + Addl. 10) for NH-320 and level of service (LOS) will be;
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr)</th><th>C (Capacity in PCU/hr)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>NH-320</td><td>147</td><td>625</td><td>0.23</td><td>B</td></tr>
</table>
Note: Capacity as per IRC 64: 1990, Guide line for capacity for roads in Rural Areas
Level of Service will be “B” i.e. Very Good for NH-320 including additional traffic due to proposed project.</td><td>Capacity of Roads as per IRC 64 is 15000 PCU/day i.e 625PCU/hr</td></tr>
<tr><td>Flora and fauna</td><td>There is no Schedule-1 Species of Fauna in the Study area</td><td>--</td></tr>
</table>

23.9.13 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

Type of Waste	Source	Quantity in Tons (TPA)	Mode of Treatment	Disposal
Sponge Iron Plant				
Dolochar	DRI Kilns	52,200	--	Presently sold to Power Plants. After the proposed expansion, will be used in-house in AFBC Boiler.
ESP Dust	ESP	29,960	--	Will be given to the Cement / ash block manufacturers
Wet Scrapper Sludge	DRI Kilns	3,450	--	Will be supplied to vendors-use as construction & low-lying areas filling.
Accretion Slag	DRI Kilns	5,150	--	
Steel Melting Plant				
IF Slag	Induction Furnace	27,500	Will be Collected and conveyed to slag crushing unit for recovery of metals	After metal recovery (approx. 10%), remaining crushed slag shall be will be supplied to vendors - use as aggregates for construction filling
IF Bag Filter Dust	Bag Filter	5,520	--	Shall be given to nearby Sinter Plant
Scale from CCM	CCM	1,350	---	Will be reused in-house in Induction Furnace or shall be given to nearby Sinter Plant
End cut/Rejects	CCM	2,650	--	Will be reused in Induction Furnace
Rolling Mill				
Mill Scales	Rolling Mill	2,000	--	Will be reused in-house in Induction Furnace or shall be given to nearby Sinter Plant
End Cuts/Cobbles	Rolling Mil	4,000	--	Reused in Induction Furnace
Power Plant				
Fly Ash from AFBC	AFBC	53,570	--	Will be given to Cement Plant / Fly-ash Brick Plants
Bottom Ash from AFBC	AFBC	13,400	--	Will be given to the brick manufacturing Units

23.9.14 Public Consultation

Details of advertisement	23.01.2020
Date of public consultation	25.02.2020
Venue	BIADA Bhavan, Industrial Area, Balidih, Bokaro
Presiding Officer	Director, DRDA, Bokaro
Major issues raised	• Employment of the local people. • Prevention of Pollution. • Renovation of Pond

	• Health Care Facility • Drinking water facility and Development of Surrounding Villages.

Action plan as per MoEF&CC O.M. dated 30/09/2020

Sl.No.	Action Plan Proposed to Address the issues raised during the Public Hearing	Target of Implementation of Action Plan (Timeline) with year wise expenditure			Total Expenditure Rs.
		1st Year	2nd Year	3rd Year	
1.	2 No of Ambulance with life supporting facilities i.e. Oxygen supply unit with necessary accessories and Nebulizer along with stretchers for the patient will be provided for villagers of Tandh and Balidih.	**Rs. 12.0 Lakhs** (Provision of 1 No. of Ambulance equipped with necessary accessories)	--	**Rs. 12.0 Lakhs** (Provision of 1 No. of Ambulance equipped with necessary accessories)	**Rs. 24.0 Lakhs**
2.	Installation of 50 numbers of solar powered street lights at internal roads of the village Barudih.	**Rs. 5.0 Lakhs** (25 Nos. of Solar Street Lamps)	**Rs. 5.0 Lakhs** (25 Nos. of Solar Street Lamps)	--	**Rs. 10.0 Lakhs**
3.	Installation of 2 numbers of borewell along with water purification unit at Vivekanand School, village Koradih and Bajrangbali Mandir, village Panjudih	**Rs. 6.0 Lakhs**	--	--	**Rs. 6.0 Lakhs**
4.	Adoption of Village Barudih under village panchayat Gorabali Dakshini				**Rs. 50.0 Lakhs**
	a) Installation of Water Coolers with Water Purification Unit at Govt. School	**Rs. 1.5 Lakhs**	--	--	
	b) Paving of Road	--	--	**Rs. 13.5 Lakhs**	
	c) Drainage System Development	--	**Rs. 6.0 Lakhs**	--	
	d) Renovation of Schools	**Rs. 6.0 Lakhs**	--	--	
	e) Installation of Solar Street Lights	--	--	**Rs. 3.0 Lakhs**	
	f) Pond Renovation	--	**Rs. 3.0 Lakhs**	--	
	g) Development of Park and Construction of Cultural program podium	--	**Rs. 10 Lakhs**	--	
	h) Providing books, Computer set and relevant accessories to school	**Rs. 7.0 Lakhs**	--	--	
6.	Additional Plantation of Trees on both sides of BIADA Bhavan road (1km) in village. Total number of 2000 trees will be planted.	**Rs. 10 Lakhs** (Plantation of 2000 Number of Trees)	--	--	**Rs. 10.0 Lakhs**

Sl.No.	Action Plan Proposed to Address the issues raised during the Public Hearing	Target of Implementation of Action Plan (Timeline) with year wise expenditure			Total Expenditure Rs.
		1st Year	2nd Year	3rd Year	
7.	Additional Plantation of 250 trees along the boundary wall of Panjudih Primary School.	**Rs. 1.25 Lakhs** (Plantation of 250 Number of Trees)	--	--	**Rs. 1.25 Lakhs**
8.	Company is paying for fees, school dress and books for a total of 26 numbers of children	**Rs. 0.863 Lakhs**	**Rs. 0.863 Lakhs**	**Rs. 0.863 Lakhs**	**Rs. 2.59 Lakhs**
9.	Construction of 15 Bed Hospital in Balidih Industrial Area, Bokaro	**Rs. 40 Lakhs** (Building construction of 2 Floors)	**Rs. 50 Lakhs** (Purchase of Medical Equipment)	**Rs. 75.0 Lakhs** (Purchase of Furniture)	**Rs. 165 Lakhs**
Total amount to be spent to address the issues of public hearing		**Rs. 89.613 Lakhs**	**Rs. 74.863 Lakhs**	**Rs. 104.363 Lakhs**	**Rs. 268.84 Lakhs**
As the public hearing was conducted on 25.02.2020, company has already carried out some developmental activities in the villages to address the issues raised in public hearing					
A.	Renovation work at the pond located in village Panjudih.	The Renovation work has already been done			**Rs. 10.0 Lakhs**
B.	Company is paying for fees, school dress and books for a total of 26 numbers of children	The school fees, School dress and books for total of 26 numbers of children has been paid for the year 2020-21 & 2021-22			**Rs. 1.72 Lakhs**
Total Cost to address the issues raised during public hearing					**Rs. 280.56 Lakhs**

23.9.15 The capital cost of the existing unit (non-violation units) and the units installed and are under violation are Rs. 34.38Crs. and Rs. 33.21Crs. Respectively. Cost of the proposed expansion is estimated to be Rs. 154.11Crs. Hence, total estimated cost to the plant after the proposed expansion will be Rs. 221.71Crs. The Environmental Protection Measures is proposed as Rs.1576.59 Lakhs (including the cost to address the Public Hearing and Total amount of Remediation Plan, natural and Community Resource Augmentation Plan) and the recurring cost of Rs. 62.53 Lakhs. The employment generation form the proposed expansion is 200. The detail of the cost of the environmental protection measures is as follows:

Sl. No.	Environmental Protection Measures	Existing Cost		Proposed Cost	
		Capital Cost Rs. In lakhs	Recurring Cost Rs. In lakhs/year	Capital Cost Rs. In lakhs	Recurring Cost Rs. In lakhs/year
1.	Air Pollution Measures	700.0	10.0	1210.0	29.0
2.	Water Pollution Control Measures and Rainwater Harvesting	15.0	2.5	85.0	5.5
3.	Noise Pollution Control Measures	10.0	0.5	20.0	1.0
4.	Storage and Solid Waste Management	15.0	1.0	20.0	2.5

Sl. No.	Environmental Protection Measures	Existing Cost		Proposed Cost	
		Capital Cost Rs. In lakhs	Recurring Cost Rs. In lakhs/year	Capital Cost Rs. In lakhs	Recurring Cost Rs. In lakhs/year
5.	Environmental Monitoring Program	12.0	5.0	32.0	12.33
6.	Greenbelt Development and Landscaping	25.50	1.0	20.44	2.20
7.	Occupational Health and Safety	7.5	2.5	17.5	10.0
Sub Total		**785.0**	**22.5**	**1404.94**	**62.53**

23.9.16 Existing greenbelt has been developed in 3.407 Ha which is about 33% of the total plant area of 10.117 ha with total sampling of 5110 trees. Proposed greenbelt will be developed with a tree density of 2500 trees per hectare. A total of 4088 numbers of trees will be planted for gap filling and a budget of Rs, 20.44 Lakhs and Yearly budget for maintenance of Rs 2.2 Lakhs has been allocated for greenbelt development.

23.9.17 **Summary of Violation under EIA Notification, 2006:** During August, 2019 to October, 2019 company installed 3x20T Induction Furnace along with 3 strands, 9/11m radius CCM to produce 180,000TPA MS Billets within the existing plant area of 25Acres (10.117Ha). As these units for production of Billets were installed without prior environmental clearance, the proposal attracts provision of S.O. 804 (E) issued by MoEF&CC dt. 14.03.2017 and OM, dt. 07.07.2021 regarding SOP for identification and handling for projects under violation. Also, the environmental clearance accorded to the company is for 2x90TPD sponge iron production of 54000TPA but in the year 2018-2019, 2019-2020 and 2021-20222 the company has exceeded the production limits. The violation units were under operation till 30.11.2022. As per the MoEF&CC OM dated M/s Sundaram Steels Pvt. Ltd. 1% of the Project Cost (i.e Rs. 33.21 Crores) and 0.25% of the total turnover during the violation period (i.e. Rs. 3,47,61,790.45) as penalty for the violation activity in addition to Damage Assessment cost. The company has also prepared a Natural and Community Resource Augmentation plan for 3 years and the details are mention in the table given below:

Cost of Penalty as per MoEF&CC OM dated 07.07.2021

Particulars	Value (Rs.)	Damage Cost (Rs.)
Turn Over	13,90,47,16,183.81	3,47,61,790.45
Total Project Cost	33,21,00,000	33,21,000
Cost of Penalty		**3,80,82,790.45**

Summarized cost remediation Plan Budget

Air Environment	Rs 1,147,897.00
Water Environment	Rs 1,496,641.18
Noise Environment	Rs 211,000.00
Land Environment	Rs 2,788,200.00
Damage Cost Evaluated	**Rs 5,643,738.00**

Sl. No.	Environmental Component	Activity Description	Total Budgetary Provision in Rs.			
			1st Year	2nd Year	3rd Year	Total
1.	Land Environment	• Assistance to Farmers by providing seedlings, manure, Bio-Fertilizer to Villagers of Khurti = Rs. 1,94,000/- • Providing one tractor (Make Mahindra) with Bund maker, Ridger, Plough for agriculture purpose to be provided to Nagae Panchayat Gorabali Dakshini = Rs. 19,00,000/-	Rs 19,00,000 (Providing Tractor with Bund maker, Ridger, Plough in Nagar panchayat of Gorabali Dakshini)	Rs 1,94,000 (providing seedlings, manure and Bio-fertilizers to villagers of Khutri)	--	Rs. 20.94 Lakhs
2.	Air Environment	• Installation of solar lights in 25 numbers of houses in Village Koradih (@ Rs. 20,000 each) • Providing one E-Rickshaw (4 seater, Make: Mac Auto) with Charger for public transport in Koradih Village = Rs. 6,00,000/-	Rs 5,00,000 Installation of solar lights in 25 number of houses in Village Koradih	Rs 6,00,000 (Providing E-Ricksaw each in Koradih village)	--	Rs. 11.0 Lakhs
3.	Water Environment	• Rain water harvesting pit (@Rs 3 Lakhs/ location) at Panchayat office of villages Narkara Punarvas, Gorabali Dakshini and Maraphari Punarvas = Rs. 9,00,000 • Renovation of Village Ponds in Gorabali Dakshini and Maraphari Punarvas (@ Rs. 3,00,000 per villages) = Rs. 6,00,000/-	Rs 6,00,000 (Rainwater Harvesting Pit and Renovation of Pond in Village Gorabali Dakshini)	Rs 6,00,000 (Rainwater Harvesting Pit and Renovation of Pond in Village Maraphari Punarvas)	Rs 3,00,000 (Rainwater Harvesting pit in Panchayat Office in Narkara Punarvas)	Rs. 15.0 Lakhs
4.	Noise Environment	• Distribution of Hearing aids to the needed Sr. Citizen of the Village Barudih @ 1000x200 person = Rs. 2,00,000	Rs 200,000 (Distribution of Hearing aids to the needed Sr. Citizens of Village Koradih)	--	--	Rs. 2.0 Lakhs
Total			**Rs. 32.0 Lakhs**	**Rs. 13.94 Lakhs**	**Rs. 3.0 Lakhs**	**Rs. 48.94 Lakhs**

Natural Resource Augmentation Plan Along with Budget

Sl No.	Proposed Actvities	Budget (Rs.)			
		1st Year	2nd Year	3rd Year	Total
1.	Installation of Bio-degradable waste converter (Make: Reddonatura, Capacity: 75 kg/day) in Gorabali Dakshini Panchayat	--	3,50,000	--	3,50,000

Community Resource Augmentation Plan along with Budget

Sl No.	Proposed Actvities	Budget (Rs.)			
		1st Year	2nd Year	3rd Year	Total
1.	Renovation of Drainage system in Gorabali Dakshini Panchayat	4,00,000	--	--	4,00,000

Damage Remediation, Natural Resource Augmentation plan and Community Resource Augmentation Plan

Sl. No.	Aspects	Budget (Rs.)
1.	Air Environment	11,00,000
2.	Water Environment	15,00,000
3.	Noise Environment	2,00,000
4.	Land Environment	20,94,000
A	**Cost of Damage Remediation Plan**	**48,94,000**
B	**Natural Resource Augmentation Plan for 3 Years**	**3,50,000**
C	**Community Resource Augmentation Plan for 3 Years**	**4,00,000**
Total		**56,44,000**

Detail of Court Cases

Detail of Court Cases	
Name of the court	Court of Chief Judicial Magistrate, Bokaro, Jharkhand
Bench	Court No. 8 and Judge S.D.J.M
Case No.	Case no. 242/2023
Orders / Directions of the court, if any and its relevance with the proposed project	Case has been filed on 11.01.2023 to initiate credible action against M/s Sundaram Steels Pvt Ltd and others for the offence committed u/s 19 of Environment (Protection) Act, 1986 and next hearing date is scheduled on 25.03.2023.
Case Details	Case has been filed for the offence committed u/s 19 of Environment (Protection) Act, 1986 in compliance of MoEF & CC TOR letter J-11011/128/2010-IA.II(I) dated 05.12.2022.

Certified Compliance Report from IRO, MoEF&CC

23.9.18 The Status of compliance of earlier EC was obtained from Regional Office, Jharkhand file no. 103-331/11/EPE/877 dt. 31.01.2023 respectively in the name of M/s Sundaram Steels Private Limited. The observation of IRO and ATR of the PP are as follows:

Sl. No.	Partially compliances details	Action Taken	Present Status
1	Specific Condition (i): ESP and Bag Filter have been provided for the DRO Stack/kiln. Online stack monitoring facility has been provided for DRI stack. Apart from stack connected to DRI Kiln there were few other stacks in the project viz. product house stack, product separation house stack, stock house stack, iron circuit stack, coal circuit stack, CD house stack for which continuous stack monitoring facilities were not provided. However PP has given stack monitoring data for the above stacks through Scientific Research Lab. PP has submitted print out of online data transfer of PM from period 16.01.2023 to 18.01.2023. Occasionally the level of PM exceeds the limit on 17.01.2023. PP has reported that "PM was slightly high due to maintenance work going on for the ID fan. After maintenance work it came to permissible limit. As per the stack monitoring data submitted by PP, Particulate matter exceeds the level of 50mg/Nm3 in Kiln Stack (Kiln 1 & 2), Product house stack, Product Separation House Stack and CD house stack. Later PP has submitted stack monitoring data of 4 stacks. Monitoring has been done by Scientific Research Laboratory (date of sampling 25.01,2023) in which concentration of particulate matter in Kiln stack (kiln 1 & 2), Product house stack, Product Separation House Stack and CD house stack was below 50mg/Nm3.	Reassessment and action plan/action taken report submission by PP is in process.	The stipulated condition is considered as partially complied.
2	Specific Condition (xiv): PP showed some ponds renovation, upcoming free medical facility room, etc. as part of their CSR activity. PP has submitted details of CSR expenses. PP reported expenditure of Rs. 2259425 on CSR. Expenditure has been incurred on Pond excavation, Borewell/tubewell for drinking water, medical ambulance, etc. However, PP should submit year wise expenditure details on CSR. PP has submitted an undertaking in which they have shown CSR expenditure tentative plan for adoption of villages, and reported that total Rs. 48.15 lakhs has been earmarked for adoption of villages in three years. PP also submitted that " expenses of 102 lakhs has been planned in next 3 years on activities such as Providing health organization center, solar street lights, water purification, greenbelt development, etc. PP has submitted that "Investment amount as stated in the CTO is projected amount and the actual amount of	Reassessment and action plan/action taken report submission by PP is in process.	The stipulated condition is considered as partially complied.

	Investment in DRI unit as on 31.03.2022 is Rs. 34.38 Crores. CA certified copy was attached"		
Sl. No.	**Following conditions are being complied/assured to comply but further action needed**	**Action Taken**	**Present Status**
1	Specific Condition (x): PP has mentioned in their six monthly compliance report that "There is no traces found in coal or if as per ministry guidelines management plan can be submitted if required further. Management plan for As, Hg and Se has not been furnished. However, PP furnished as copy of coal analysis for As, Hg and Se the data reported to be 0.18mg/kg, 0.31mg/kg, 0.05mg/kg respectively. Monitoring has been done by Sun-Tech (report date 25.02.2022)	Reassessment and action plan/action taken report submission by PP is in process.	Being complied/assured to comply but further action needed
2	Specific Condition (xi): Risk disaster management plan has not been furnished. However PP reported that on site emergency plan has been submitted to Factory Inspector on 12.07.2022 and submitted a copy of receipt of their letter no . SSPL/2022-23/FL dated 12.07.20222 from office of Factory Inspector Bokaro. PP should follow up and obtain approval of competent authority for their Risk and Disaster Management Plan.	Reassessment and action plan/action taken report submission by PP is in process.	Being complied/assured to comply but further action needed

Written representations:

23.9.19 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 15.02.2023 through email dated 15.02.2023 submitted the following information:

Sl. No.	Observations	Reply by the Project proponent
1	To Increase the budget allocated to address the concerns raised during public hearing	Total budget to address the issues raised during the public hearing is increased from Rs. 1.1431 Crores to Rs. 2.8056 crores (approx. 1.5% of the project cost). This amount will primarily be utilized in the development of Village Barudih under village panchayat Gorabali Dakshini being adopted by Sundaram Steels Pvt Ltd and in the construction of 15 Bed Hospital in Balidih Industrial Area. Revised Public Hearing Action Plan is submitted and updated at para 23.9.14 above**.**
2	To provide affidavit for remaining closure of units under violation till the grant of EC.	Affidavit dated 15.02.2023 by M/s Sundaram Steels Pvt Ltd stating that the units under violation (3x20T Induction furnace and CCM) are not in operation is submitted. Also PP assures that they will not repeat any type of violation in future.
3	To take additional environment protection measure for the nearby school.	M/s Sundaram Steels Pvt Ltd. will plant 250 trees in monsoon season of the year 2023 along the boundary wall of Panjudih Primary School. For developing this greenbelt, activity proposed under the Public Hearing action plan with budgetary provision of amount of Rs. 1.25Lakhs.

Sl. No.	Observations	Reply by the Project proponent
4	Advantages of installation of 1x400 TPD DRI Kiln in place of 2x200 TPD Kilns, as proposed earlier, to be provided	Advantage of installation of 1x400 TPD DRI Kiln in place of 2x200 TPD DRI Kiln is as follows: i. **Higher Productivity and Better Quality of Product:** 400 TPD DRI plant will have a higher productivity and will achieve more metallization than that achieved through combination of 200TPD DRI Kiln. ii. **Resource Optimization:** 1x400 TPD plants require less area of land and equipment as compared to 2x200 TPD plants. Low specific consumption of coal is envisaged in 400 TPD DRI Kiln as compared to 200TPD DRI Kiln. iii. **Greater flexibility in use of raw materials:** The range of coal and ore quality that 400TPD plant can accept without compromising on capacity and product quality is wider than the 200TPD kilns from the discharge end. iv. **Better plant automation & control** is from a single control room only unlike in case of 2x200 TPD plants whereby two separate control rooms are required. v. **More effective pollution control** due to single material handling section and single ESP and stack involved vi. **Lower energy loss:** The shell temperature in kiln is around 180^{O}C in 400TPD DRI as compared to 400^{O}C in 200TPD DRI Kiln. Thus the energy loss is about 30 % lower. **The EAC deliberated the** advantages of installation of 1x400 TPD DRI Kiln in place of 2x200 TPD Kilns and accepted the request of PP as justified above.

Deliberations by the Committee

23.9.20 The Committee noted the following:

1. The instant proposal is for enhancement of sponge iron production from 0.054 to 0.174 million tonnes per annum (MTPA), production of 0.18 MTPA Billets (installed under violation) and setting-up of facility for production 0.174 MTPA Rolled Products along with 24MW Captive Power Plant.
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. The existing project was accorded environmental clearance vide lr no. J-11011/128/2010-IA-II(I) dated 14th January, 2011 for installation of 2x90 TPD Sponge Iron Plant along with 8 MW Captive Power Plant and amendment on 21st December, 2011 from MoEFCC, New Delhi. Consent To Operate has been issued by Jharkhand State Pollution Control Board vide Ref no. JSPCB/HO/RNC/CTO-10568235/2021/1258 dated 10.10.2021. The validity of CTO is up to 30.06.2024.
6. The EAC further noted that during August, 2019 to October, 2019 company installed 3x20T Induction Furnace along with 3 strands, 9/11m radius CCM to produce 180,000TPA MS Billets within the existing plant area of 25Acres (10.117Ha). As these units for production of Billets were installed without prior environmental clearance, the project falls under vilaotion and is appraised under the provision of S.O. 804 (E) issued by MoEF&CC dt. 14.03.2017 and OM, dt. 07.07.2021 regarding SOP for identification and handling for projects under violation. Also, the environmental clearance accorded to the company is for 2x90TPD sponge iron production of 54000TPA but in the year 2018-2019, 2019-2020 and 2021-20222 the company has exceeded the production limits. The violation units were under operation till 30.11.2022. As per the MoEF&CC OM dated M/s Sundaram Steels Pvt. Ltd. 1% of the Project Cost (i.e Rs. 33.21 Crores) and 0.25% of the total turnover during the violation period (i.e. Rs. 3,47,61,790.45) as penalty for the violation activity in addition to Damage Assessment cost. The company has also prepared a Natural and Community Resource Augmentation plan for 3 years and the details are mention in para 23.9.17 above.
7. There is a case (Case no. 242/2023) filed on 11.01.2023 in the Court of Chief Judicial Magistrate, Bokaro, Jharkhand to initiate credible action against M/s Sundaram Steels Pvt Ltd and others for the offence committed u/s 19 of Environment (Protection) Act, 1986. This is filed as per provisions of the SOP dated 07.07.2021.
8. Total project land is 10.117 ha which is allotted to M/s Sundaram Steels Pvt Ltd by Bokaro Industrial Area Development Authority, Bokaro on 18.08.2009 for a period of 30 years.
9. The EAC also deliberated the advantages of installation of 1x400 TPD DRI Kiln in place of 2x200 TPD Kilns and accepted the request of PP.
10. The nearest human settlement from the project site is Village Koradih which is at a distance of 0.25 km in the East direction.

11. Panjudih Primary School is in close proximity to the project site. M/s Sundaram Steels Pvt Ltd. has committed to plant 250 trees in monsoon season of the year 2023 along the boundary wall of Panjudih Primary School.
12. Khanjo River (6.20 km, W), River Damodar (6.75 km, NE), Garga River (6.32 km, SSW) and Reservoir of Garga Dam (3.28 km, SSW)exists within the study area of 10 km from the project site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
13. The water requirement after the proposed expansion is estimated as 906 m^3/day, out of which 833 m^3/day of fresh water requirement will be obtained from the Jharkhand Industrial Area Development Authority (JIADA) and remaining will be recycled water.
14. The existing greenbelt has been developed in 3.407 Ha which is about 33% of the total plant area of 10.117 ha with total sampling of 5110 trees. Proposed greenbelt will be developed with a tree density of 2500 trees per hectare. A total of 4088 numbers of trees will be planted for gap filling. The EAC deliberated on the greenbelt action plan and found it satisfactory.
15. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
16. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
17. The Committee also deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
18. The EAC deliberated on the written submission of project proponent and found it satisfactory.
19. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
20. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee:

23.9.21 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the written submission on portal** under the provisions of EIA Notification, 2006 and subject to the stipulation of following specific conditions and general conditions;

A. Specific Condition:

i. PP needs to comply all the points of TOR for Violation Project and follow SOP dated 07.07.2021 issued by the Ministry of Environment, Forest & Climate Change, for identification & handling of Violation cases under EIA notification 2006.

ii. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

iii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

iv. **The total amount of Rs. 56.44 Lakhs shall be spent on Remediationplan and Natural Resource Augmentation Plan and Community Resource Augmentation Plan which shall be implemented in three years as per the action plan details given in EIA Report and summarized below.**

A. Damage Remediation Plan

Sl. No.	Environmental Component	Activity Description	Total Budgetary Provision in Rs.			
			1st Year	2nd Year	3rd Year	Total
1.	Land Environment	• Assistance to Farmers by providing seedlings, manure, Bio-Fertilizer to Villagers of Khurti = Rs. 1,94,000/- • Providing one tractor (Make Mahindra) with Bund maker, Ridger, Plough for agriculture purpose to be provided to Nagae Panchayat Gorabali Dakshini = Rs. 19,00,000/-	Rs 19,00,000 (Providing Tractor with Bund maker, Ridger, Plough in Nagar panchayat of Gorabali Dakshini)	Rs 1,94,000 (providing seedlings, manure and Bio-fertilizers to villagers of Khutri)	--	Rs. 20.94 Lakhs
2.	Air Environment	• Installation of solar lights in 25 numbers of houses in Village Koradih (@ Rs. 20,000 each) • Providing one E-Rickshaw (4 seater, Make: Mac Auto) with Charger for public transport in Koradih Village = Rs. 6,00,000/-	Rs 5,00,000 Installation of solar lights in 25 number of houses in Village Koradih	Rs 6,00,000 (Providing E-Ricksaw each in Koradih village)	--	Rs. 11.0 Lakhs

Sl. No.	Environmental Component	Activity Description	Total Budgetary Provision in Rs.			
			1st Year	2nd Year	3rd Year	Total
3.	Water Environment	• Rain water harvesting pit (@Rs 3 Lakhs/ location) at Panchayat office of villages Narkara Punarvas, Gorabali Dakshini and Maraphari Punarvas = Rs. 9,00,000 • Renovation of Village Ponds in Gorabali Dakshini and Maraphari Punarvas (@ Rs. 3,00,000 per villages) = Rs. 6,00,000/-	Rs 6,00,000 (Rainwater Harvesting Pit and Renovation of Pond in Village Gorabali Dakshini)	Rs 6,00,000 (Rainwater Harvesting Pit and Renovation of Pond in Village Maraphari Punarvas)	Rs 3,00,000 (Rainwater Harvesting pit in Panchayat Office in Narkara Punarvas)	Rs. 15.0 Lakhs
4.	Noise Environment	• Distribution of Hearing aids to the needed Sr. Citizen of the Village Barudih @ 1000x200 person = Rs. 2,00,000	Rs 200,000 (Distribution of Hearing aids to the needed Sr. Citizens of Village Koradih)	--	--	Rs. 2.0 Lakhs
Total			**Rs. 32.0 Lakhs**	**Rs. 13.94 Lakhs**	**Rs. 3.0 Lakhs**	**Rs. 48.94 Lakhs**

B. Natural Resource Augmentation Plan Along with Budget

Sl. No.	Proposed Actvities	Budget (Rs.)			
		1st Year	2nd Year	3rd Year	Total
1.	Installation of Bio- degradable waste converter (Make: Reddonatura, Capacity: 75 kg/day) in Gorabali Dakshini Panchayat	--	3,50,000	--	3,50,000

C. Community Resource Augmentation Plan along with Budget

Sl No.	Proposed Actvities	Budget (Rs.)			
		1st Year	2nd Year	3rd Year	Total
1.	Renovation of Drainage system in Gorabali Dakshini Panchayat	4,00,000	--	--	4,00,000

Table: Damage Remediation, Natural Resource Augmentation plan and Community Resource Augmentation Plan

Sl. No.	Aspects	Budget (Rs.)
1.	Air Environment	11,00,000
2.	Water Environment	15,00,000
3.	Noise Environment	2,00,000
4.	Land Environment	20,94,000
A	**Cost of Damage Remediation Plan**	**48,94,000**
B	**Natural Resource Augmentation Plan for 3 Years**	**3,50,000**
C	**Community Resource Augmentation Plan for 3 Years**	**4,00,000**
Total		**56,44,000**

v. The project proponent shall submit a bank guarantee of an amount of Rs. 56.44 lakhs towards Remediation plan and Natural and Community Resource Augmentation plan with the CPCB prior to the grant of environmental clearance (EC) as per SOP 07.07.2021.

vi. Project proponent shall ensure that the plan shall be completed in three years whereas the bank guarantee shall be for five years. The bank guarantee shall be released by the CPCB after successful implementation of Remediation plan, Natural Resource Augmentation Plan and Community Resource Augmentation plan.

vii. Project proponent has to submit Rs. 3,80,82,790.45 towards penalty provisions as per SOP dated 07.07.2021 to the SPCB prior to the grant of EC as penalty for the violation activity in addition to Damage Assessment cost. The cost of Penalty as per MoEF&CC's OM dated 07.07.2021 is detailed as below:

Particulars	Value (Rs.)	Damage Cost (Rs.)
Turn Over	13,90,47,16,183.81	3,47,61,790.45
Total Project Cost	33,21,00,000	33,21,000
Cost of Penalty		**3,80,82,790.45**

viii. The total water requirement is 906 m^3/day, out of which 833 m^3/day of fresh water requirement shall be obtained from the Jharkhand Industrial Area Development Authority (JIADA) and remaining shall be from recycled water. PP shall obtain necessary permission from the Competent Authority.

ix. Following additional arrangements to control fugitive dust shall be provided:
   a. Fog / Mist Sprinklers at all conveyors point and on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
   b. Proper covered vehicle shall be used while transport of materials.
   c. Wheel Washing mechanism shall be provided in entry and exit gates with complete recirculation system.

x. All internal road and connecting road from project site to main highway shall be developed and maintained with suitable Million Axle Standard (MSA) as per the traffic load due to existing and proposed project.

xi. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.

xii. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.

xiii. Particulate matter emission from stacks shall be less than 30 mg/Nm^3. Action plan submitted to limit the dust emission shall be strictly implemented.

xiv. CEMS shall be provided on all process stacks and the signal shall be received in plant control room for central control of APCDs installed in the plant

xv. 85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil as a fuel.

xvi. Ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system shall be used.

xvii. Solid waste utilization

a. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
b. PP shall recycle/reuse 100 % solid waste generated in the plant.
c. Used refractories shall be recycled as far as possible.

xviii. Khanjo River (6.20 km, W), River Damodar (6.75 km, NE), Garga River (6.32 km, SSW) and Reservoir of Garga Dam (3.28 km, SSW)exists within the study area of 10 km from the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

xix. The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.

xx. The company shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.

xxi. The nearest human settlement from the project site is Village Koradih which is at a distance of 0.25 km in the East direction. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include this locations in its environmental monitoring programme.

xxii. As committed, PP shall plant 250 trees in monsoon season of the year 2023 along the boundary wall of Panjudih Primary School.

xxiii. PP shall undertake Village adoption programme and shall prepare and implement a robust plan for socio-economic development of nearby villages to develop them into model villages.

xxiv. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

xxv. Three tier Green Belt shall be developed in at least 33% of the project area ia a period of 1 year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Gap filling shall be undertaken and survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. PP shall develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy to act as green barrier for air pollution & noise levels towards Village Koradih inside the plant premises. The green belt shall be completed by monsoon season of

2023. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

xxvi. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

xxvii. Air Cooled condensers shall be used in the captive power plant.

xxviii. During operational phase at Captive Power Plant, PP shall measure coal dust exposures and to maintain coal dust exposures within stipulated standards at coal handling areas. PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.

xxix. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

xxx. Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, fixing the location of fire water tanks, separate power system for fire fighting, involvement of qualified and trained fire personnel, nearest fire station & time required to reach the proposed site shall be prepared and implemented.

xxxi. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

xxxii. The PP shall conduct personal and area air sampling for in PM2.5 dust where exposure to Coal/coke dust to be quantified at work areas at different process plants-coal/coke handling areas, power plants-ball mills, coal handling areas and to be compared with permissible exposure limit of coal/coke dust.

xxxiii. Adequate number of Mobile Fog / Mist Sprinklers shall be commissioned at conveyors, on bulk raw material storage area/ transfer points like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas. This Fog/Mist sprinkling should also be facilitated to the surrounding villages on a periodic basis.

xxxiv. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall

be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

D. General conditions:

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as two Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

v. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.

vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.

vii. Plant internal roads shall be concreted and a vacuum cleaner shall be used to regularly clean the roads.

viii. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.

ix. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 414 (E) dated 30th May 2008; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF); S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant

and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.

iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.

IV. Noise monitoring and prevention

i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.

VI. Waste management

i. Used refractories shall be recycled as far as possible.

ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused in melting Furnaces.

iii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

ii. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames", when PP comes for EC proposal. This study shall be formulated keeping in view of India's Net-zero commitment at the COP-26 Climate Summit.

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE).

iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.

ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of

the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

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

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

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

xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

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

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

***

Agenda No. 23.10

23.10 Expansion of Integrated Cement Plant [Clinker - 4.80 to 8.3 Million TPA; Cement - 4.85 to 8.35 Million TPA and WHRB - 36 MW] located at Village: Amli, Tehsil: Pindwara, District: Sirohi (Rajasthan) by M/s. UltraTech Nathdwara Cement Limited (Unit: Nathdwara Cement Works)- Consideration of Environmental Clearance.

[Proposal No. IA/RJ/IND1/414123/2023; File No. IA-J-11011/59/2010-IA-II(IND-I)]
[Consultant: J.M. Environet Pvt. Ltd.; Valid upto: 07.08.2023]

23.10.1 M/s. UltraTech Nathdwara Cement Limited has made an online application vide proposal no. IA/RJ/IND1/414123/2023 dated 03.02.2023 along with copy of EIA/EMP report, Form - 1 Part - A, B, C & Certified compliance report seeking Environment Clearance (EC) under the provisions of EIA Notification, 2006. The proposed project activity is listed at schedule no. 3 (b) Cement Plants & 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and being appraised at Central Level as Category 'A'.

23.10.2 Name of the EIA consultant: M/s. J.M. Environet Pvt. Ltd [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0172; valid upto 07.08.2023, as on February 16, 2023].

Details submitted by the project proponent

23.10.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
08th June, 2019	9th Meeting of EAC held on 30th July, 2019	Terms of Reference	19th March, 2020	18th March, 2024

23.10.4 The project of M/s. UltraTech Nathdwara Cement Limited is located in Village: Amli, Tehsil: Pindwara, District: Sirohi, Rajasthan state is proposing expansion of Integrated Cement Plant (Clinker - 4.80 to 8.30 Million TPA; Cement - 4.85 to 8.35 Million TPA and WHRB - 36 MW).

23.10.5 Environmental site settings

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>Total Plant area is 230.0 ha (including plant and colony);
Proposed expansion will be done within the existing plant premises.</td><td>Land use: Industrial land</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Total land is under the possession of the company.</td><td>Proposed expansion will be done within the existing plant premises.</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Plant Site: No habitation exists within the plant site.
Study Area:
<table>
<tr><th>Habitation</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>Bilar</td><td>~1.4</td><td>WNW</td></tr>
<tr><td>Malap</td><td>~1.5</td><td>SW</td></tr>
<tr><td>Sadalwa</td><td>~1.6</td><td>NE</td></tr>
<tr><td>Amli</td><td>~2.3</td><td>ENE</td></tr>
<tr><td>Rajpura</td><td>~2.5</td><td>NW</td></tr>
<tr><td>Kundal</td><td>~3.0</td><td>SW</td></tr>
</table>
There are approx. 38 villages in the study area.</td><td>R&R is not applicable</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all corners of the project site</td><td>
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td colspan="3">Plant Area</td></tr>
<tr><td>5.</td><td>24°49'22.73"N</td><td>73° 4'56.81"E</td></tr>
<tr><td>6.</td><td>24°49'34.64"N</td><td>73° 5'16.25"E</td></tr>
<tr><td>7.</td><td>24°49'33.84"N</td><td>73° 5'16.93"E</td></tr>
<tr><td>8.</td><td>24°49'39.94"N</td><td>73° 5'24.50"E</td></tr>
<tr><td>9.</td><td>24°49'43.81"N</td><td>73° 5'31.80"E</td></tr>
<tr><td>10.</td><td>24°49'36.15"N</td><td>73° 5'44.07"E</td></tr>
<tr><td>11.</td><td>24°49'20.62"N</td><td>73° 5'55.07"E</td></tr>
<tr><td>12.</td><td>24°49'10.96"N</td><td>73° 6'5.13"E</td></tr>
<tr><td>13.</td><td>24°48'57.54"N</td><td>73° 5'48.60"E</td></tr>
<tr><td colspan="3">Colony Area</td></tr>
<tr><td>1.</td><td>24°49'39.34"N</td><td>73° 4'37.17"E</td></tr>
<tr><td>2.</td><td>24°50'5.75"N</td><td>73° 5'8.20"E</td></tr>
<tr><td>3.</td><td>24°49'51.78"N</td><td>73° 5'22.55"E</td></tr>
<tr><td>4.</td><td>24°49'54.69"N</td><td>73° 5'25.80"E</td></tr>
<tr><td>5.</td><td>24°49'47.26"N</td><td>73° 5'33.22"E</td></tr>
<tr><td>6.</td><td>24°49'44.57"N</td><td>73° 5'33.70"E</td></tr>
</table>
</td><td>-</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>7.</td><td>24°49'45.31"N</td><td>73° 5'31.83"E</td></tr>
<tr><td>8.</td><td>24°49'25.04"N</td><td>73° 4'57.31"E</td></tr>
<tr><td>9.</td><td>24°49'27.64"N</td><td>73° 4'51.19"E</td></tr>
<tr><td>10.</td><td>24°49'26.52"N</td><td>73° 4'49.75"E</td></tr>
</table>
</td><td></td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>390 m to 452 m above mean sea level.</td><td>-</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No Forest Land is involved in the plant site.</td><td>-</td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Plant site: No water body exists within the plant site.
Study area: Following water bodies are falling in the study area
<table>
<tr><th>Water body</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>Bilar Nadi</td><td>~1.5</td><td>WNW</td></tr>
<tr><td>Hagri Nadi</td><td>~2.5</td><td>WNW</td></tr>
<tr><td>Darvot Nadi</td><td>~4.0</td><td>SSW</td></tr>
<tr><td>Gokhli Nadi</td><td>~5.5</td><td>West</td></tr>
<tr><td>Shivnagri ka Nala</td><td>~5.5</td><td>North</td></tr>
<tr><td>Jawai River</td><td>~6.0</td><td>NE</td></tr>
</table>
</td><td>-</td></tr>
<tr><td>viii.</td><td>Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area.</td><td><u>Study Area</u>
• No National Park / ESZ / ESA / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. fall within 10 km study area. Therefore, NBWL approval is not applicable.
• List of Reserved and protected forests:
• Pindwara RF (adjacent in South direction)
• Bilar Jod RF (0.5 km in WNW direction)
• Sadalwa Jod RF (2.0 km in NNW direction)
• Pahad Kalan PF (2.0 km in SE direction)
• SiveraJod RF (3.0 km in NNW direction)
• Malnu Protected Forest (4.5 km in NNW direction)
• Rameshwar PF (6.5 km in South direction)
• Protected Forest (7.0 km in NNE direction)
• Darla Jod RF (7.5 km in NW direction)
• Markundeshwar PF (8.0 km in SSW direction)
• Janapur RF (9.0 km in SW direction)
• Reserved Forest (9.5 km in WSW direction)</td><td>-</td></tr>
</table>

23.10.6 The existing project was accorded environmental clearance *vide* letter no. J-11011/59/2010-IA-II(I) dated 01st May, 2010 and amendment in EC Letter regarding change of fuel mix in the name of M/s. Binani Cement Ltd. dated 14th June, 2013 and the same was transferred to M/s. UltraTech Nathdwara Cement Ltd. *vide* letter no. J-11011/59/2010-IA-II(I) dated 27th Feb., 2020 from MoEFCC, New Delhi. Consent to Operate for the existing unit was accorded by RSPCB *vide* File No.: F(CPM)/Sirohi(Pindwara)/2(1)/2013-2014/714-716 and *vide* File No.: F(CPM)/Sirohi(Pindwara)/2(1)/2013-2014/699-701 which is valid upto 30.09.2024, CTO for CPP Capacity 70 MW accorded *vide* File No.: F(CPM)/Sirohi(Pindwara)/4(1)/2022-2023/1411-1413 which is valid upto 31.03.2027 and CTO for D.G. Set of 250 KVA *vide* File No.: F(CPM)/Sirohi(Pindwara)/4(1)/2022-2023/1417-1419 which is valid upto 31.03.2027.

23.10.7 Implementation status as per existing EC:

S. No.	Facilities	Units	As per EC dated 01st May, 2010 amended on 14th June, 2013 and transferred on 27th Feb., 2020	Implementation Status as on date	Production as per CTO
1.	Clinker	MTPA	4.8	Implemented	3.80
2.	Cement	MTPA	4.85	Implemented	3.38
3.	Captive Power Plant	MW	70	Implemented	26

23.10.8 The unit configuration and capacity of existing and proposed unit are given as below:

S. No.	Plant Equipment / Facility	Existing Facilities as per EC dated 01st May, 2010 amended on 14th June, 2013 and transferred on 27th Feb., 2020		Proposed Unit		Final (Existing + Proposed)	
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
1.	Clinker	Kiln & Cooler 15,000 TPD	4.8 MTPA	Kiln & Cooler 10000 TPD	3.5 MTPA	Kiln & Cooler 15,000 +10,000 TPD	8.3 MMTPA
2.	Cement	Cement Mill: 590 TPH	4.85 MTPA	Cement Mill: 450 TPH	3.5 MTPA	Cement Mill: 590 + 450 TPH	8.35 MMTPA
3.	CPP	Boiler capacity 184 TPH	70 MW	-	-	Boiler capacity 184 TPH	158.2 MW
4.	WHRB	-		36 MW	36 MW	36 MW	36 MW

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

S. No.	Raw Material	Quantity (Million TPA)			Source	Distance	Mode of Transportation
		Existing	Additional	Total			
1.	Limestone	7.274	5.320	12.594	Captive Limestone Mines	1.5 to 3 Km	Covered Conveyor belt

2.	Silica Sand	0.0146	0.175	0.1896	Iswal (Udaipur, Rajasthan)	100 Km	Road
							Road
3.	Red Ochre / Iron Ore	0.0073	0.350	0.3573	Chittorgarh (Rajasthan)	250 Km	Road
4.	Gypsum	0.360	0.263	0.623	Barmer, Nagore, Jaisalmer, Dahej (Gujrat)	235-500 Km	Road
5.	Fly Ash	1.6975	1.225	2.923	Barmer (Rajasthan), Gandhinagar (Gujrat)	230 - 250 Km	Road
6.	High grade Limestone / Marble Khanda	-	0.189	0.189	Nagaur, Jaisalmer, Revdar	70 - 500 Km	Road
7.	Feldspar	-	0.013	0.013	Chittorgarh & Sirohi	35 – 250 Km	Road

Fuel Requirement is as below:

S. No.	Fuel	Quantity (Million TPA)			Source	Distance & Mode of Transportation
		Existing	Proposed	Total		
1.	Petcoke *(as feedstock)* (Indian / Imported)	0.480	0.35	0.83	Reliance, Jamnagar Nayara, Wadinar (Gujrat) Imported (US & Saudi) via Mundra & Kandla Port	400 - 550 km / Railway / Road
2.	Imported Coal	0.600	0.438	1.0375	Australia, Mozambican, US via Mundra & Kandla Port	200 - 1200 kms, Railway / Road
	Indian Coal				SECL NCL, WCL	
	Lignite				Panadhro (GMDC) / Barmer / Bikaner	
Note: * Alternative Fuel and Alternative Raw Material (Hazardous & Non-Hazardous) will also use as per availability and suitability.						

23.10.10 The existing water requirement is 3185 KLD, water requirement is obtained from Ground water and rain water stored in mine pit of captive mines and plant water reservoir. Permission for the same has been obtained from CGWA for withdrawal of 4960 KLD vide their letter no. 21-4(28)/WR/CGWA/05-1567 dated 21st Nov., 2008 and the same is being renewed from time to time. The water requirement for the proposed expansion is estimated as 1050 KLD and will be obtained from Ground water and rain water stored in mine pit of captive mines and plant reservoir. No additional permission for groundwater withdrawal will be required.

23.10.11 Existing power requirement of 55 MW is obtained from CPP and Rajasthan State Electricity Board. The Power Requirement for the proposed expansion project is estimated as 35 MW which will be sourced from existing CPP, RSEB Grid and Proposed WHRS

23.10.12 Baseline Environmental Studies

Period	Summer Season (March to May, 2022)
AAQ parameters at 09 locations (Min and Max)	• $PM_{2.5}$ – 26.9 to 52.0 µg/m^3 • PM_{10} - 55.9 to 90.9 µg/m^3 • SO_2 - 6.3 to 17.9 µg/m^3 • NO_x - 14.0 to 31.5 µg/m^3 • CO - 0.5 to 1.51 mg/m^3
Incremental GLC level	• PM - 1.0 µg/m^3 (Level at ~995 m in East Direction) • SO_2- 0.546 µg/m^3 (Level at ~995 m in East Direction) • NO_x-0.576 µg/m^3 (Level at ~1900 m in East Direction) • CO - 0. 351 mg/m^3 (Level at ~2.1 Km in East Direction)
Ground water quality at 08 locations	• pH - 7.81 to 8.11 • Total Hardness - 345.23 to 502.13 mg/l • Chlorides - 70.12 to 298.14 mg/l • Fluoride - 1.01 to 1.34 mg/l • Heavy Metals - Iron as Fe: 0.16 to 0.27 mg/l
Surface water quality at 01 locations	• pH - 7.49 • DO - 6.9 mg/l • BOD - 3.5 mg/l • COD - 10.1 mg/l
Noise levels (Day and Night)	53.0 to 69.4 Leq dB (A) for day time and 42.3 to 62.4 Leq dB (A) for the night time.
Traffic assessment study findings	✓ Traffic study has been conducted at SH - 62 which is passing from between the plant and colony. ✓ Transportation of raw material, fuel & finished product will be done as per details given below: ▪ Silica Sand - 100 % by road ▪ Red Ochre/ Iron Ore - 100 % by road ▪ Gypsum - 100 % by road ▪ Fly Ash - 100 % by road ▪ High grade Limestone/ Marble Khanda - 100 % by road ▪ Feldspar - 100 % by road ▪ Coal - 100 % by road ▪ Petcoke - 25% by Rail & 75 % by road ▪ Clinker - 67% by Rail & 33 % by road ▪ Cement - 36% by Rail & 64 % by road ✓ Existing PCU is 188.1 PCU/hr. on SH - 62 and existing level of service (LOS) is B

Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS

	SH - 62 | 188.1 | 625* | 0.30 | B * *Capacity as per IRC- 64-1990 Guidelines.* ✓ PCU load after proposed project will be 188.1 (Existing) + 85.37 (Additional) PCU/hr. and level of service (LOS) will be C (Considering 100% Transportation by road). **Road** | **V (Volume in PCU/hr.)** | **C (Capacity in PCU/hr.)** | **Existing V/C Ratio** | **LOS** SH - 62 | 188.1 + 85.37 = 273.47 | 625* | 0.437 | C * *Capacity as per IRC- 64-1990 Guidelines.* ***Conclusion:*** The level of service will be "C" after including the additional traffic due to the proposed expansion.
Flora and fauna	Total 04 Schedule - I species viz. *Felis libyca* (Desert Cat), *Melursus ursinus* (Sloth Bear), *Panthera pardus* (Common Leopard) and *Pavo cristatus* (Peafowl) were recorded in the study area as per (IWPA) Indian Wildlife Protection Act, 1972. Wildlife Conservation Plan for above mentioned Schedule - I species has been prepared and in-principal approval for the same has been granted by the Chief Wildlife Warden *vide* letter dated 17th Nov., 2022.

23.10.13 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S. No.	Type of Waste	Source	Quantity generated			Treatment / Disposal
			Existing	Proposed	Total	
1.	Dust	Cement Plant	398.6 TPD	287.6 TPD	686.2 TPD	Dust collected from various APCEs will be totally recycled into the process.
2.	Fly ash	CPP	90	-	90 TPD	Used in manufacturing of PPC grade cement
3.	STP Sludge	STP	12	8	20 Kg/day	Used as manure for greenbelt development / plantation
4.	Used Oil	Plant Maintenance	58	42	100 TPA	Sold to CPCB authorized recycler / Co-processing in Kiln
	Waste / residue containing oil		29	21	50 TPA	Co-processing in Kiln
	Contaminated cotton rags or other cleaning materials		15	10	25 TPA	Sold to CPCB authorized recycler
	Empty barrels/ containers/ liners		15	10	25 TPA	Sold to CPCB authorized recycler / Co-processing in Kiln
5.	Bottles, Paper, Cans, Textiles, etc.	MSW	80	40	~ 120 Kg / day	Sold to registered recycler.

S. No.	Type of Waste	Source	Quantity generated			Treatment / Disposal
			Existing	Proposed	Total	
	Kitchen and canteen/ Green waste		50	30	~ 80 Kg/day	After vermi - compost and utilized as a manure for greenbelt development / plantation.

23.10.14 Public Consultation:

Details of advertisement given	Public Hearing Notice published in Newspapers "Rajasthan Patrika" on 21st Oct., 2021 and "Dainik Navjyoti" on 22nd Oct., 2021
Date of Public Consultation	24th Nov., 2021 at 11:00 AM
Venue	Truck Parking Yard at Village: Amli, Tehsil: Pindwara, District: Sirohi
Presiding Officer	• Sri K.R. Khod Additional District Collector, Sirohi (Rajasthan) • Shri Rahul Sharma Regional Officer, RSPCB, Sirohi (Rajasthan)
Major issues raised	Employment, Environment, Health, Education, Water, Socio Economic Development, Plantation, etc.

Action plan as per MoEF&CC O.M. dated 30/09/2020

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1st Year		2nd Year		3rd Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
1	***Health Related***	Organizing medical camps	Village Pindwara	12	08 Nos. (Village Amli)	8	08 nos. (Village Malap)	8	28
		Providing equipment in hospital like OT, ambulance etc. and assistance in blood emergency cases	(Village Pindwara)	8	Village Amli	6	Village Thandiberi	6	20
2	***Education Related***	Renovation/ infrastructure development of school/college	01 school in each village (Malap & Thandiberi)	16	Village Pindwara	8	01 school (Village Varli)	8	32
		Distribution of furniture and sports material to AWC	10 AWC Village Varli	40	01 AWC Village Malap	4	01 AWC (Village Amli)	4	48
		Improvement in education facility	(Village Pindwara)	8	Village Varli	8	Village Malap	8	24
		Construction / renovation of toilets in school	02 Nos. (Village Varli)	12	01 No. (Village Thandiberi)	6	01 Nos. (Village Amli)	6	24
		Setting up of Library	02 Village Amli	18	02 Village Thandeberi	18	01 Village Pindwara	9	45
3	***Water Related***	Water managemnet work like development of rainwater harvesting	(Village Pindwara)	12	Village Amli	12	Village Thandiberi	12	36

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1st Year		2nd Year		3rd Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
		system, deepening of pond, water conservation etc.							
		Maintenance/renovation of existing tubewell, borewell & handpump	20 tubewells (nearby plant)	5	(Village Pindwara)	2	10 handpumps (Village Thandiberi)	0.9	7.9
		Assisstance in Government Drinking Project / Tap scheme of Jal Jeevan mission	Village Pindwara	10	Village Thandiberi	10	Village Phali Vasi	10	30
		Construction of water troughs	02 Nos. (Village Amli)	10	02 Nos. (Village Pindwara)	10	02 Nos. (Village Thandiberi)	10	30
		Arrangement of water tanks	(Village Amli)	3					3
4	***Socio Economic***	Skill development activities in the area	100 participants (Village Pindwara)	12	100 participants (Village Sadalva)	12	100 participants (Village Amli)	12	36
		Construction of entry gate	Village Pindwara	3					3
		Training farmers	50 Nos. (Village Pindwara)	8	50 Nos. (Village Thandiberi)	8	50 Nos. Village Malap	8	24
		Provision of facilities like drinking, storage etc in government school & Aganwadi	01 (Village Thandiberi)	10	01 (Village Amli)	10	01 (Village Pindwara)	10	30
		Levelling of road	1 km (Village Sadalva)	6	1 km (Village Thandiberi)	6	1 km (Village Amli)	6	18
		Installation of street lights	300 Nos. (Village Thandiberi)	16	150 Nos. (Village Amli)	8			24
		Installation of solar lights	50 Nos. (Village Balli)	10	30 Nos. (Village Amli)	6	30 Nos. (Village Pindwara)	6	22
		Road widening work	1km (Village Amli)	11	1 km Village Thandeberi	11	0.7 km (Village Malap)	8	30
		Construction/renovation of cowshed	01 Nos. (Village Pindwara)	10	01 Nos. (Village Thandiberi)	10	01 Nos. (Village Amli)	10	30
		Distribution of toys in Aganwadi & infrastructure development	01 AWC Village Kundal	8	01 AWC (Village Thandiberi)	8	1AWC (Village Pindwara)	8	24
		Levelling of sports ground in school	02school (Village Thandiberi)	20	01 school Amli	10	01 school Pindwara	10	40

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1st Year		2nd Year		3rd Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
5	***Plantation***	Distribution of plants with tree guards	500 (Villages Pindwara, Varli and Amli)	10	75 (Village Thandaberi)	1.5	75 (Village Thandaberi)	1.5	13
6	***Others***	Construction of shed for cremation site	01 Village Amli	5					5
Total									**626.9**

23.10.15 The existing capital cost of the project was Rs. 2,019 Crores. The capital cost of the proposed expansion project is Rs. 1250 Crores and the capital cost for Environmental Protection Measures is proposed as Rs. 125 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 6.4 Crores. The employment generation from the expansion project is about 200 persons. The details of cost for environmental protection measures are as follows:

S. No.	Description of Item	Cost (Rs. *in Crores)*	
		Capital Cost	**Recurring Cost**
i.	Air Pollution Control & House Keeping measures	121	5.2
ii.	Water Pollution Control and Rain Water Harvesting Measures	1.5	0.5
iii.	Noise Pollution Control	0.5	0.1
iv.	Environment monitoring and management	0.5	0.1
v.	Greenbelt Development	1.5	0.5
Sub total		**125**	**6.4**
vi.	Addressal of PH issues	**6.269**	-
vii.	Details of adoption of villages (6 nos.)	**1.0**	-
Grand Total		**132.269**	**6.4**

23.10.16 Existing greenbelt has been developed in 86.8 ha area which is about 38 % of the total project area of 230 ha with total saplings of 99,230 trees. Proposed greenbelt will be developed in 19.0 ha which is about 8% of the total project area. Thus, a total of 105.8 ha (46% of total project area) will be developed as greenbelt. A 10 - 15 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEFCC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 1,65,270 saplings will be planted and nurtured in 105.8 ha in 03 years.

23.10.17 It is submitted that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

Certified Compliance Report from Regional Office

23.10.18 The status of compliance of earlier EC was obtained from Integrated Regional Office, Jaipur vide letter no. IV/ENV/R/IND-58/431/2006 dated 3rd Jan., 2023, in the name of M/s. UltraTech Nathdwara Cement Ltd. All the conditions stipulated in the EC were complied.

Deliberations by the Committee

23.10.19 The Committee noted the following:

1. The EAC noted that the existing water requirement is 3185 KLD which is obtained from Ground water and rain water stored in mine pit of captive mines and plant water reservoir. The water requirement for the proposed expansion is estimated as 1050 KLD which will also be obtained from Ground water and rain water stored in mine pit of captive mines and plant reservoir. The EAC is of the opinion that PP shall submit water conservation measures to balance out the ground water usage.

2. The EAC deliberated on the submitted plant layout and is of the opinion that Project proponent shall submit a separate contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.

3. The EAC noted that as reported existing greenbelt has been developed in 86.8 ha area which is about 38% of the total project area of 230 ha with total saplings of 99,230 trees which comes out to be 1143 plants/ha. Further, proposed greenbelt has been planned to developed in 19.0 ha which is about 8% of the total project area. Thus, a total of 105.8 ha (46% of total project area) will be developed as greenbelt wirh total no. of 1,65,270 saplings in 03 years. The EAC opined that gap filling shall be undertaken and maximum plantation shall be completed within 1st year in consultation with institutes like Arid Forest Research Institute, Jodhpur. PP shall submit a revised greenbelt development plan along with an undertaking in this regard.

4. The EAC also opined that PP shall explore the possibility of assisting State Forest Department in afforestation jobs in adjoining degraded forest land around the project site so as to meet the target of 53% green belt as per TOR. PP shall carry out a meeting with State Forest Department officials and shall prepare a roadmap for taking afforestation jobs. In this regard, a compliance need to be submitted.

5. The PP shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, shall be prepared to develop them into model villages. PP shall submit details of the villages to be adopted. PP shall also undertake palantation activities along the village roads.

6. Bilar Nadi (1.5 km, WNW), Hagri Nadi (2.5 km, WNW), Darvot Nadi (4.0 km, SSW), Gokhli Nadi (5.5 km, West), Shivnagri ka Nala (5.5 km, North), and Jawai River (6.0 km, NE) exists within 10 Km. radius of the plant site. The EAC is of the opinion that a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be submitted.

7. The nearest habitation to plant are Bilar (1.4 km, WNW), Malap (1.5 km, SW), Sadalwa (1.6 km, NE), Amli (2.3 km, ENE), Rajpura (2.5 km, NW) and Kundal (3.0 km, SW). There are approx. 38 villages in the study area Project Proponent shall submit

environmental safeguard measures that will be undertaken to minimise the impact on the habitation of the locals.

8. There is a school at a distance of approx. 600 m from the project site. PP shall environmental safeguard measures that will be undertaken to minimise the impact due to the project.
9. The EAC noted that Pindwara RF is adjacent to the project site in the South direction. PP shall environmental safeguard measures that will be undertaken to minimise the impact due to the project.
10. The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and opined that action plan submitted to address the PH issues and socio-economic development of the nearby villages shall be revised, to be more quantitative and shall be submitted as per Ministry's OM dated 30.09.2020.
11. The EAC deliberated on the employment provided under the existing project and is of the view that the wages to the workers may not be in line with the labour laws. Also, PP shall explore the possibility to provide direct/indirect employment to tribals of the area.
12. The EAC is of the opinion that PP shall also submit the status of implementation of the action plan submitted in order to address the issues raised during the previous PH.
13. In view of above facts, EAC advised PP to revise the EIA/EMP report covering all the desired information for further consideration.
14. The PP/Consultant agreed to the suggestions of EAC and requested EAC to allow reappear after the revision of the application incorporating the desired information.

Recommendations of the Committee:

23.10.20 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** to address the shortcomings enumerated at para no. 23.10.19 above. The proposal may be considered after submission of the requisite information.

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Consideration of Modification in Environmental Clearance

Agenda No. 23.11

23.11 Expansion of existing Integrated steel plant to final capacity of Sponge Iron- 20,54,000 TPA, Billets (Mild & Alloys Steel)- 23,73,566 TPA, Rolled Products- 15,60,000 TPA, Captive Power Plant- 328 MW, Pellets- 30,00,000 TPA, Producer Gas Plant- 96,450 NM3/Hr, Sinter Plant- 5,90,000 TPA, MBA- 3,93,750 TPA, Ferro Alloys- 2,50,000 TPA, Coal Washery- 10,00,000 TPA by M/s Shyam Metalics and Energy Limited, located at Village - Pandloi, Block-Lapanga, District- Sambalpur, Odisha - Modification in Environmental Clearance condition.

[Proposal No. IA/OR/IND/297093/2023; File No. J-11011/495/2006-IA.II(I)]
[Consultant: Centre for Envotech & Management Consultancy Pvt. Ltd.; Valid upto: 18.04.2024]

23.11.1 M/s Shyam Metalics and Energy Limited has made an online application vide proposal no. IA/OR/IND/297093/2023 dated 01.02.2023 along with Form-4 and addendum EIA report and sought for amendment in Environmental Clearance accorded by the Ministry vide File no. J-11011/495/2006-IA.II(I) dated 16.08.2022 w.r.t. modification in specific condition (xxiv) from Air cooled condensers shall be used in the power plant to Water Cooled Condensing System.

Details submitted by Project proponent

23.11.2 M/s Shyam Metalics and Energy Limited was granted Environment Clearance from MoEFCC, New Delhi vide letter no. J-11011/495/2006-IA.II(I) dated 16.08.2022 for Expansion of existing Integrated steel plant to final capacity of Sponge Iron - 2,054,000 TPA, Billets (Mild & Alloy Steel)- 23,73,566 TPA, Rolled Products - 15,60,000 TPA, Captive Power-308 MW, Pellets - 30,00,000 TPA, Producer Gas Plant-96,450 Nm^3/Hr, Sinter Plant- 5,90,625 TPA, Blast Furnace-3,93,750 TPA by M/s. Shyam Metalics and Energy Limited located at Village - Pandloi, Block-Lapanga, District- Sambalpur, Odisha.

23.11.3 The instant proposal is for seeking amendment in EC dated 16.08.2022 w.r.t. modification in specific condition (xxiv) from Air cooled condensers shall be used in the power plant to Water Cooled Condensing System as detailed below.

Ref. in EC dated 16.08.2022	As per EC	Proposal after amendment sought	Reason/Justification
Para 6, Page 8 of 20; Specific Condition (xxiv)	Air cooled condensers shall be used in the power plant.	Water cooled condensers shall be used in the power plant.	• Reduction in thermal efficiency due to ACC System • Increase in heat rate due to adoption of ACC System • Increase in coal consumption • Capital and operation cost is high in ACC System

Ref. in EC dated 16.08.2022	As per EC	Proposal after amendment sought	Reason/Justification
			• Additional CO2 Emission • Availability of sufficient water for WCC System • Less Land Area

23.11.4 The total water consumption as proposed for the expanded plant is 28683 KLD which includes 22729 KLD fresh water requirements, 3054 KLD from Rain water Harvesting Pond and 2900 KLD Treated waste water. Out of the total water requirement of 28683 KLD, CPP with Air Cooled Condensing System would require 12855 KLD whereas Water Cooled Condensing System would require 18480 KLD. **Hence, there is 5625 KLD if the technology system would be changed. Thus, the total water consumption shall be 34308 KLD.**

23.11.5 There is no change in configuration & capacity of units in granted EC.

23.11.6 **Justification for Amendment:**

Sl. No.	Description	Air Cooled	Water Cooled	Remarks
1	Cost Benefits	Estimated Project Cost – 67 Cr/-	Estimated Project Cost – 35 Cr/-	WCC is 48% cheaper as compared to ACC as it involves less piping work and area
2	Land Requirement	8477 M2	5969 M2	WCC requires 30% less area than ACC which again lowers the project cost
3	Environmental Impact Assessment	• Generated Dust as air is a cooling media. • More Land area requirement. • Less Water requirement. • CO_2 emission more due to less thermal efficiency.	• No Dust is generated and act as a dust scrubber • Less Land area requirement. • More water requirement. • CO_2 emission less due to higher thermal efficiency (176 TPD coal is less consumed) – approx. 244 TPD CO2 less generation.	ACC cooling tower involves high circulation of air which sucks & Circulates dust in surrounding environment. ACC never suppresses dust where as in WCC the dust particles get absorbed in the system and settle downs in CT Basin.
4	Noise Pollution	No. of Rotating part. Fans: 20 nos. Pumps: 2 nos.	No. of Rotating part. Fans: 5 nos. Pumps: 2 nos. Total Noise Level: 65 to 70 dBA	Due to the more no. of fans installed in ACC type Cooling tower, it generates more noise as compared to WCC which is open & circulatory system

Sl. No.	Description	Air Cooled	Water Cooled	Remarks
		Total Noise Level: 80 to 85 dBA		
5	Pollution load assessment	Increase in pollution due to additional coal fired.	Increase in water disposal problem. Same shall be managed with water required for steel plant, gardening, CHP & AHP	
6	Water requirement	No water requirement in the system as it is air cooled system	8016 m^3/Day Water is required for CT make-up	PP has adequate water allocation from WRD, GOO also rain water harvesting system is in place.
7	Additional Coal Saving	---	Approx. 8-9% less coal will be consumed.	

23.11.7 PP has also proposed various water conservation measures as follows:

- Recirculating type cooling water system with cooling towers
- Utilization of Cooling tower blow down for coal dust suppression and extraction system, Service Water System, Ash handling and Fire fightling.
- Recycle and reuse of effluents from coal dust suppression and extraction system and service water system.
- Ash water recirculating system
- Recirculation of filter backwash to clarifier inlet.
- All water systems inside the plant are closed circuit system and there is no trade effluent from the process.
- Domestic effluent will be sent to septic tank followed by soak pit.
- Use of high pressure hoses for area cleaning
- No wastewater will be discharged to any ground water or to the surface water body.
- Water can be saving between 15-40% by implementing drip irrigation which will use for the lawn and green area.
- By comparing the precipitation heads and emitters of plants, plant shall be grouped on a zone with similar water requirement.
- Use of low-volume and low-angle sprinklers for lawn areas
- Select controllers with adjustable watering schedules and moisture sensors to account for seasonal variations and calibrate them during commissioning.
- Installation of sub-meters on key areas of water use – monitoring water use is a precursor for management.
- Rain Water Harvesting pond over an area of 4.5 ha is in place and additional rain water harvesting pond over 1.45 ha is proposed. Apart from this water reservoir over 12.22 ha is in place. Thus, the plant has sufficient water reservoir area to meet its demand and store rain water.

23.11.8 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

Deliberation by the Committee

23.11.9 The Committee noted the following:

i. M/s Shyam Metalics and Energy Limited was granted Environment Clearance from MoEFCC, New Delhi vide letter no. J-11011/495/2006-IA.II(I) dated 16.08.2022 for Expansion of existing Integrated steel plant to final capacity of Sponge Iron - 2,054,000 TPA, Billets (Mild & Alloy Steel)- 23,73,566 TPA, Rolled Products - 15,60,000 TPA, Captive Power-308 MW, Pellets - 30,00,000 TPA, Producer Gas Plant-96,450 Nm^3/Hr, Sinter Plant- 5,90,625 TPA, Blast Furnace- 3,93,750 TPA by M/s. Shyam Metalics and Energy Limited located at Village - Pandloi, Block-Lapanga, District- Sambalpur, Odisha.

ii. The instant proposal is for seeking amendment in Environmental Clearance accorded by the Ministry vide File no. J-11011/495/2006-IA.II(I) dated 16.08.2022 w.r.t. modification in specific condition (xxiv) from Air cooled condensers shall be used in the power plant to Water Cooled Condensing System as detailed in para 23.11.3 above.

iii. The EAC deliberated on the justification provided by the project proponent and found it satisfactory in the instant case.

iv. The EAC also noted that water requirement of the proposed project will change from 28683 KLD to 34308 KLD. Howerver, EAC is of the opinion that PP shall stricty implement the water conservation measures proposed by the project proponent.

v. The EAC noted that there is no change in configuration & capacity of units in granted EC.

vi. In addition, the Committee also deliberated on the ITI condition as discussed in the earlier meeting during appraisal of EC and is of the opinion that PP shall strictly comply with the condition.

Recommendations of the Committee

23.11.10 After deliberations, the Committee **recommended** the proposal for amendment in EC granted vide File no. J-11011/495/2006-IA.II(I) dated 16.08.2022 w.r.t. modification in specific condition (xxiv) from **Air cooled condensers shall be used in the power plant to Water Cooled Condensing System** as detailed in para 23.11.3 above subject to the following additional condition:

i. The water requirement of the proposed project will change from 28683 KLD to 34308 KLD. PP shall stricty implement the water conservation measures as proposed.

ii. The other terms and condition of the Environment Clearance granted vide letter no. J-11011/495/2006-IA.II(I) dated 16.08.2022 shall remain the same.

***

Agenda No. 23.12

23.12 Proposed 2X 4.9 MVA Ferro Alloys Plant (25, 740 TPA Combination of Fe-Si, Si-Mn and Fe- Mn.) of M/s. Thakur Prasad Sao & Sons Private Limited, located at Village Lodosara, Tehsil- Panposh, District-Sundargarh, Odisha - Validity of Environmental Clearance.

[Proposal No. IA/OR/IND/294521/2022; File No. J-11011/401/2011-IA-II (I)]
[Consultant: Global Tech Enviro Experts Pvt. Ltd.; Valid upto: 06.11.2023]

23.12.1 M/s. Thakur Prasad Sao & Sons Private Limited has made an online application vide proposal no. IA/OR/IND/294521/2022 dated 25.01.2023 along with Form-6 and sought for extension of validity of Environmental Clearance accorded by the Ministry vide File no. J-1101111/401/2011-IA II (I), dated 28th April, 2015.

Details submitted by Project proponent

23.12.2 M/s Thakur Prasad Sao & Sons Pvt. Ltd was granted Environmental clearance vide F.No. J-1101111/401/2011-IA II (I), dated 28th April, 2015 for 2 x 4.9 MVA Ferro Alloys Plant (25, 740 TPA Combination of Fe-Si, Si-Mn and Fe-Mn), located at Village Lodsara, tehsil Panposh, District Sundergarh Odisha.

23.12.3 The instant proposal is for seeking extension of validity of EC dated 28.04.2015 for a further period of 2 years.

23.12.4 **Reason for extension of validity of EC:**
Existing 4.9 MVA Furnace construction and trial run was completed in 2 years of time. Raw material handling section, power grid, water pipeline common for 2 furnaces have already been completed and in operation.
Venders and suppliers have already been lined up to supply equipment in short period.
Hence PP is hopeful that within EC validity extension period 2nd Furnace will be lined up.

Deliberation by the Committee

23.12.5 The Committee noted the following:

i. M/s Thakur Prasad Sao & Sons Pvt. Ltd was granted Environmental clearance vide F.No. J-1101111/401/2011-IA II (I), dated 28th April, 2015 for 2 x 4.9 MVA Ferro Alloys Plant (25, 740 TPA Combination of Fe-Si, Si-Mn and Fe-Mn), located at Village Lodsara, tehsil Panposh, District Sundergarh Odisha.

ii. The instant proposal is for seeking extension of validity of EC dated 28.04.2015 for a further period of 2 years.

iii. The EAC noted that as per Ministry's O.M. vide F.No. 1A3-22/28/2022-IA.111 [E181584] dated 13.12.2022, the validity of Environmental Clearance, which had not expired as on the date of publication of Notification i.e. 12/04/2022, shall stand automatically extended to respective increased validity as mentioned at para no-1 column (C), of the O.M. i.e. 10 years from the date of grant of EC in the case of projects other

than river valley, nuclear and mining projects. Therefore the validity of EC in the instant case is automatically increased to 27.04.2025.

iv. The EAC is also of the opinion that there is no need for issuing formal letter to the project proponent as the O.M. dated 13.12.2022 has been published to automatically extend the EC validity of project falling under its purview.

Recommendations of the Committee

23.12.6 After deliberations, the Committee is of the opinion that the EC granted by the Ministry vide letter J-1101111/401/2011-IA II (I), dated 28th April, 2015 is valid for a period upto 27.04.2025 in pursuance to the Ministry's O.M. vide F.No. 1A3-22/28/2022-IA.111 [E181584] dated 13.12.2022 for a period upto 27.04.2025. Further, the **EAC advised that there is no need for issuing formal letter to the project proponent as the O.M. dated 13.12.2022 automatically extends the EC validity of project falling under its purview**. Accordingly, the Committee returned the proposal.

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Consideration of Modification in ToR proposal

Agenda No. 22.13

23.13 Proposed green field project for Manufacturing of High Carbon Ferro chrome and power Generation by M/s Indian Metals and Ferro Alloys Limited, located at Kalinga Nagar Industrial Complex, Dist.-Jajpur, Odisha- Consideration of TOR.

[Proposal No. IA/OR/IND/296472/2023; File No. IA-J-11011/273/2022-IA-II(IND-I)]

23.13.1 M/s. Indian Metals & Ferro Alloys Limited has made an application online vide proposal No. IA/OR/IND/296472/2023 dated 25.01.2023 along with the application in prescribed format (Form-3), copy of revised Pre-feasibility report and revised Form-1 seeking amendment in Terms of Reference accorded by the Ministry vide letter no. J-11011/273/2022-IA-II (I), dated 23.12.2022 w.r.t. change in baseline monitoring period from 1st November, 2022 to 31st January, 2023 and nature of project land to 50.29 ha (total under govt. lease land).

Details submitted by Project proponent

23.13.2 M/s. Indian Metals & Ferro Alloys Limited had earlier applied for grant of ToR vide proposal no. IA/OR/IND1/405941/2022 dated 11.11.2022 for for setting up of a green field project for production of 96000 Tons Per Annum (TPA) High Carbon Ferrochrome & 10 MW Power generation from furnace off gas in Kacherigaon Village, Danagadi Tehsil, Jajpur District, Odisha. Accordingly, Terms of Reference was issued by MoEF&CC vide letter no. J-11011/273/2022-IA-II (I), dated 23.12.2022.

23.13.3 The instant proposal is for seeking amendment in ToR dated 23.12.2022 w.r.t. change in baseline monitoring period from 1st November, 2022 to 31st January, 2023 and nature of project land to 50.29 ha (total under govt. lease land) as follows:

S. No.	Reference of approved ToR	Description as per MoM and Approved ToR	Amendment required	Remarks
1.	Page 1 Para 4 Point i.	**Total Land:** 50.29 ha [Private: 7.46 ha; Govt:42.83 ha]	**Total Land:** 50.29 ha [Government Lease Land]	In Form-1 (part-A), in Brief write-up/proposed ToR: Base line data collection period had been proposed "from 1st Nov 22 to 31st January, 2023 and 50.29 ha Govt. lease land had been mentioned. Meeting minutes uploaded on 06.12.2022, wherein deviation in both the points was, inadvertently missed and noticed when ToR letter was issued on 23.12.2022 and brought to the knowledge of ministry. PP beg apology for inadvertently missing to notice the deviation in uploaded approved MOM & promise not to repeat in future.
2.	Page 3 Para 9	**Proposed Terms of Reference:** [Baseline data collection period:1st March to 31st May 2022]	**Proposed Terms of Reference:** [Baseline data collection period: 1st November, 2022 to 31st January, 2023]	

23.13.4 There is no change in configuration & capacity of units in granted ToR.

Deliberation by the Committee

23.13.5 The Committee noted the following:

i. M/s. Indian Metals & Ferro Alloys Limited had earlier applied for grant of ToR vide proposal no. IA/OR/IND1/405941/2022 dated 11.11.2022 for for setting up of a green field project for production of 96000 Tons Per Annum (TPA) High Carbon Ferrochrome & 10 MW Power generation from furnace off gas in Kacherigaon Village, Danagadi Tehsil, Jajpur District, Odisha. Accordingly, Terms of Reference was issued by MoEF&CC vide letter no. J-11011/273/2022-IA-II (I), dated 23.12.2022.

ii. The instant proposal is for seeking amendment in ToR dated 23.12.2022 w.r.t. change in baseline monitoring period from 1st November, 2022 to 31st January, 2023 and nature of project land to 50.29 ha (total under govt. lease land) as detailed in para 23.13.3 above.

iii. The EAC also noted that PP vide email dated 15.02.2023 has submitted the Land Lease Deed executed on 14.10.2022 by IDCO in favour of M/s. Indian Metals and Ferro Alloys.

iv. The EAC noted that there is no change in configuration & capacity of units in granted ToR.

v. The EAC also advised PP/Consultant to be more careful in future and shall thoroughly go through the Minutes of meeting uploaded on PARIVESH portal prior to grant of permission by MoEF&CC.

Recommendations of the Committee

23.13.6 After deliberations, the Committee **recommended** the proposal (**subject to uploading of land document on PARIVESH portal)** for amendment in ToR granted vide File no. J-11011/273/2022-IA-II (I), dated 23.12.2022 w.r.t. change in baseline monitoring period from 1st

November, 2022 to 31st January, 2023 and nature of project land to 50.29 ha (total under govt. lease land) as detailed in para 23.13.3 above.

***

Agenda No. 22.14

23.14 Expansion of Sponge Iron Plant from 90,000 TPA to 4,40,000 TPA, Steel Melting Shop from 47,000 TPA to 5,42,000 TPA, Rolling Mill from 72,000 TPA to 4,02,000 TPA, Captive Power Plant from 10 MW to 34 MW) by M/s VRKP Sponge and Power Plant LLP, Located at Halakundi village, Bellary Taluk & district, Karnataka – Consideration of Environmental Clearance.

[Proposal No. IA/KA/IND/288917/2017; File No. J-11011/527/2017-IA-II(I)]
[Consultant: Pioneer Enviro Laboratories & Consultants Private Limited; valid upto 16.12.2022]

23.14.1 M/s. VRKP Sponge & Power Plant LLP has made an online application vide proposal no. IA/KA/IND/288917/2022, dated 30th November, 2022 along with copy of EIA/EMP report, Form – 2 and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

23.14.2 Name of the EIA consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [Sl. No. 63, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0162; valid upto 22.03.2023, Rev. 25, Sept 05, 2022].

Details submitted by Project proponent

23.14.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord
11th October 2017	24th meeting of EAC held on 13th to 15th November 2017	Terms of Reference	29.11.2017

CHRONOLOGY OF EVENTS

- Form I along with PFR for proposed expansion was submitted to MoEF&CC, New Delhi on 11.10.2017 (by ***M/s. Pragathi Labs & Consultants Pvt. Ltd. – EARLIER CONSULTANT***)
- Proposal for proposed expansion for issue of TOR was considered in 24th EAC meeting held on **14.11.2017**
- Terms of Reference (TOR) for the proposed expansion project was issued vide letter no. **J-11011/527/2017-IA II (I)** dated **29.11.2017.**

- Draft EIA report along with Executive Summary submitted to Karnataka Pollution Control Board (KSPCB) for conduct of Public Hearing on **04.06.2018.**
- Public Hearing was conducted by KSPCB on **20.02.2019.**
- Public Hearing minutes was issued by KSPCB on **20.05.2019.**
- Final EIA report along with PH proceeding & reply by management on issues raised in PH submitted to MoEF&CC in Parivesh Portal for EC appraisal on **31.08.2019 (which was before expiry of TOR validity i.e. 28.11.2020 (as per O.M. issued by MoEF&CC dated 29th August 2017).**
- Subsequently EDS # 1 was raised by Hon'ble Ministry on **13.09.2019.**
- Later, due to certain unavoidable circumstances, PP has **dismissed** M/s. Pragathi Labs & Consultants Pvt. Ltd. as their Environment Consultant for proposed expansion project and accordingly obtained NOC from them.
- **M/s. VRKP SP LLP** have submitted reply to EDS # 1, intimating change in consultant on **13.03.2020.**
- EDS # 2 was raised by MoEF&CC with similar points on **27.03.2020.**
- Now, due to change of the Environment Consultant and appointing (M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. Hyderabad) for Revalidating the Final EIA report and duly addressing the points issued vide reference -3 (EDS on 13/09/2019) cited above and Fresh Baseline data for One season i.e. from March 2022 to May 2022.

23.14.4 The project of M/s. VRKP Sponge & Power Plant LLP located in Halakundi village, Bellary Taluk & district, Karnataka is for proposed expansion of Sponge Iron Plant from 90,000 TPA to 4,40,000 TPA, Steel Melting Shop from 47,000 TPA to 5,42,000 TPA, Rolling Mill from 72,000 TPA to 4,02,000 TPA, Captive Power Plant from 10 MW to 34 MW.

23.14.5 Environmental Site Settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>1.</td><td>Total land</td><td>88.15 Ha. (217.82 Acres) [Private Land]</td><td>--</td></tr>
<tr><td>2.</td><td>Land acquisition details as per MoEF&CC, O.M. dated 7/10/2014.</td><td>Total land earmarked for the project is 88.15 Ha. (217.82 Acres) i.e. partly in Existing Land area of 35.6 Ha. (87.97 Acres) & adjoining Additional Land of 52.55 Ha. (129.85 Acres].

183.64 Ac. of land is in possession of the management and Agreement of sale entered for the remaining 34.18 Ac. Of Land between M/s. Hothur Steels & M/s. VRKP Sponge & Power Plant LLP</td><td>--</td></tr>
<tr><td>3.</td><td>Existence of habitation &involvement of R&R, if any.</td><td>Project site: No habitation exists in the plant site

Study Area<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Halakundi</td><td>1.4 km</td><td>NNE</td></tr></table></td><td>--</td></tr>
<tr><td>4.</td><td>Latitude and Longitude of all corners of the project site</td><td>The following are the Coordinates of the Plant site<table><tr><th>S. No.</th><th>Point</th><th>Coordinates</th></tr><tr><td>1.</td><td>Point # 1</td><td>15° 4'19.37"N, 76°52'15.03"E</td></tr></table></td><td>--</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th colspan="3">Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td colspan="3"><table>
<tr><td>2.</td><td>Point # 2</td><td>15° 4'11.65"N, 76°52'07.43"E</td></tr>
<tr><td>3.</td><td>Point # 3</td><td>15° 4'06.07"N, 76°52'02.17"E</td></tr>
<tr><td>4.</td><td>Point # 4</td><td>15° 4'00.72"N, 76°51'59.86"E</td></tr>
<tr><td>5.</td><td>Point # 5</td><td>15° 3'56.12"N, 76°51'56.62"E</td></tr>
<tr><td>6.</td><td>Point # 6</td><td>15° 3'56.41"N; 76°51'55.93"E</td></tr>
<tr><td>7.</td><td>Point # 7</td><td>15° 3'50.25"N, 76°51'53.48"E</td></tr>
<tr><td>8.</td><td>Point # 8</td><td>15° 3'52.36"N, 76°52'00.57"E</td></tr>
<tr><td>9.</td><td>Point # 9</td><td>15° 3'48.40"N, 76°52'00.77"E</td></tr>
<tr><td>10.</td><td>Point # 10</td><td>15° 3'48.58"N, 76°52'04.54"E</td></tr>
<tr><td>11.</td><td>Point # 11</td><td>15° 3'45.55"N, 76°52'11.49"E</td></tr>
<tr><td>12.</td><td>Point # 12</td><td>15° 3'52.39"N, 76°52'13.64"E</td></tr>
<tr><td>13.</td><td>Point # 13</td><td>15° 3'50.19"N, 76°52'21.53"E</td></tr>
<tr><td>14.</td><td>Point # 14</td><td>15° 3'55.58"N, 76°52'23.17"E</td></tr>
<tr><td>15.</td><td>Point # 15</td><td>15° 3'55.15"N, 76°52'25.10"E</td></tr>
<tr><td>16.</td><td>Point # 16</td><td>15° 3'49.79"N, 76°52'23.65"E</td></tr>
<tr><td>17.</td><td>Point # 17</td><td>15° 3'43.50"N, 76°52'21.44"E</td></tr>
<tr><td>18.</td><td>Point # 18</td><td>15° 3'40.89"N, 76°52'19.62"E</td></tr>
<tr><td>19.</td><td>Point # 19</td><td>15° 3'38.81"N, 76°52'24.91"E</td></tr>
<tr><td>20.</td><td>Point # 20</td><td>15° 4'01.77"N, 76°52'35.77"E</td></tr>
<tr><td>21.</td><td>Point # 21</td><td>15° 4'03.29"N, 76°52'34.94"E</td></tr>
<tr><td>22.</td><td>Point # 22</td><td>15° 4'04.68"N, 76°52'29.75"E</td></tr>
<tr><td>23.</td><td>Point # 23</td><td>15° 4'10.77"N, 76°52'31.44"E</td></tr>
<tr><td>24.</td><td>Point # 24</td><td>15° 4'14.01"N; 76°52'33.22"E</td></tr>
<tr><td>25.</td><td>Point # 25</td><td>15° 4'11.93"N; 76°52'40.70"E</td></tr>
<tr><td>26.</td><td>Point # 26</td><td>15° 4'12.89"N; 76°52'41.17"E</td></tr>
<tr><td>27.</td><td>Point # 27</td><td>15° 4'14.68"N, 76°52'38.18"E</td></tr>
<tr><td>28.</td><td>Point # 28</td><td>15° 4'21.80"N, 76°52'40.20"E</td></tr>
<tr><td>29.</td><td>Point # 29</td><td>15° 4'22.21"N, 76°52'38.69"E</td></tr>
<tr><td>30.</td><td>Point # 30</td><td>15° 4'14.99"N, 76°52'36.56"E</td></tr>
<tr><td>31.</td><td>Point # 31</td><td>15° 4'15.80"N, 76°52'32.78"E</td></tr>
<tr><td>32.</td><td>Point # 32</td><td>15° 4'21.68"N, 76°52'33.89"E</td></tr>
<tr><td>33.</td><td>Point # 33</td><td>15° 4'22.76"N, 76°52'29.47"E</td></tr>
<tr><td>34.</td><td>Point # 34</td><td>15° 4'18.05"N, 76°52'25.68"E</td></tr>
<tr><td>35.</td><td>Point # 35</td><td>15° 4'17.16"N, 76°52'22.17"E</td></tr>
</table></td><td></td></tr>
<tr><td>5.</td><td>Elevation of the project site</td><td colspan="3">88.40 m to 101.85 m</td><td>--</td></tr>
<tr><td>6.</td><td>Involvement of Forest Land, if any</td><td colspan="3">Nil</td><td>--</td></tr>
<tr><td>7.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drianage, Canal etc.,) exists within the project site as well as study area</td><td colspan="3"><u>Project Site:</u> Seasonal Nala is Passing through the site from North to South direction.

<u>Study area:</u><table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Tungabhadra High level Canal</td><td>4.8 Km</td><td>***</td></tr>
<tr><td>Allipur Kere Reservoir</td><td>9.0 km</td><td>***</td></tr>
</table></td><td>--</td></tr>
</table>

S. No.	Particulars	Details	Remarks
		Seasonal Nala is Passing through the site — North to South direction	
8.	Existence of ESZ / ESA / National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. if any within the study area	Nil. **List of Reserved Forest:** Bellary RF at 0.6 km (W) Mincheri RF at 2.7 km (SE)	--

23.14.6 The existing project was accorded environmental clearance vide lr.no. SEIAA: 31: IND: 2007 dated 01.01.2009 for establishment of 10 MW CPP, 12 T Induction Furnace with CCM & 72,000 TPA Rolling Mill in the name of M/s. Hothur Steels. EC has been transferred from M/s. Hothur Steels to M/s. VRKP Sponge & Power Plant LLP vide letter no. SEIAA 31 IND 2007 dated 23.12.2016. Consent to Operate for the existing unit was accorded by Karnataka State Pollution Control Board vide lr. No. AW-326208 dated 16.08.2021. The validity of CTO is up to 30.06.2026.

CHRONOLOGY OF EXISTING PERMISSIONS	
Hothur Steels	
1	E.C. issued by Forest, Ecology and Environment Department, Govt. of Karnataka for production of 30,000 TPA Sponge Iron with vide No. FEE 49 ECO 2004 dated 07.08.2004.
2	EC issued by Forest, Ecology and Environment Department, Govt. of Karnataka for increased production from 30,000 to 90,000 TPA with Ref. No. FEE 9 ECO 2006 dated 04.07.2008.
3	EC issued by SEIAA, Karnataka to establish 10 MW CPP, 12 T Induction Furnace with CCM & 72,000 TPA Rolling Mill, with vide order no. SEIAA: 31: IND: 2007 dated 01.01.2009.
4	CFE issued by KSPCB vide order No. KSPCB/SEO/MINES/CFE/2010-11/292 dated 13.01.2011.
5	The plant was shut down from 2011 to 2015.
VRKP Sponge & Power Plant LLP	
1	M/s. VRKP Sponge & Power Plant LLP has taken over M/s. Hothur Steel plant in July 2015
2	M/s. VRKP has received combined consent order in November 2015 for a period of 1 year
3	EC has been transferred from M/s. Hothur Steels Pvt. Ltd. to M/s. VRKP Sponge & Power Plant LLP on 23.12.2016

CHRONOLOGY OF EXISTING PERMISSIONS	
4	Current CFO obtained with vide order: AW-326208 dated 16.08.2021 and valid up to 30.06.2026

23.14.7 Implementation status of the existing EC

S. No.	Facilities	Product	As per E.C dated 01.01.2009	Implementation Status as on 12.12.2022	Current status of operation as per CTO
1	DRI Plant	Sponge Iron	90,000 TPA (3x100 TPD)	90,000 TPA (3x100 TPD)	90,000 TPA (3x100 TPD)
2	Induction Furnace with CCM	Hot Billets / Steel Billets	47,000 TPA (1x12 T)	47,000 TPA (1x12 T)	47,000 TPA (1x12 T)
3	Rolling Mill (85 % Hot charging with Hot Billets & remaining 15% through RHF with LDO/ LSHS as fuel)	Rolled Products / TMT Bars/ Hot Strips / Coils	72,000 TPA	72,000 TPA	72,000 TPA
4	Captive Power Plant	Electricity	10 MW (WHRB: 6 MW & AFBC: 4 MW)	10 MW (WHRB: 6 MW & AFBC: 4 MW)	10 MW (WHRB: 6 MW & AFBC: 4 MW)

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

S. No.	Product	Product	Existing capacity As per E.C issued on 01.01.2009	Current status of operation as per CTO	Proposed capacity as part of Expansion capacity	Total capacity After expansion capacity
1	DRI Plant	Sponge Iron	90,000 TPA* (3x100 TPD)	90,000 TPA* (3x100 TPD)	3,50,000 TPA (3x350 TPD)	4,40,000 TPA (3x100 TOD + 3x350 TPD)
2	Induction Furnace with CCM	Hot Billets / Steel Billets	47,000 TPA (1x12 T)	47,000 TPA (1x12 T)	4,95,000 TPA (3x40 T)	5,42,000 TPA (1x12 T + 3x40 T)
3	Rolling Mill (85 % Hot charging with Hot Billets &remaining 15% through RHF with LDO/LSHS as fuel)	Rolled products / TMT Bars/ Hot Strips / Coils	72,000 TPA	72,000 TPA	3,30,000 TPA	4,02,000 TPA
4	Captive Power Plant	Electricity	10 MW	10 MW	24 MW (WHRB)	34 MW

S. No.	Product	Product	Existing capacity As per E.C issued on 01.01.2009	Current status of operation as per CTO	Proposed capacity as part of Expansion capacity	Total capacity After expansion capacity
			(WHRB: 6 MW & AFBC: 4 MW)	(WHRB: 6 MW & AFBC: 4 MW)		(WHRB: 30 MW & AFBC: 4 MW)
Note: In the ToR application the capacity of Sponge iron was mentioned as 1,00,000 TPA, which is Typographical Error. The capacity is 90,000,TPA only. Hence the Total Capacity of Sponge iron production after expansion will become 4,40,000 TPA.						

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

S.No.	Raw Material		Quantity	Source	Distance from Site (Kms)	Mode of Transport
For manufacturing Sponge Iron) of 3,50,000 TPA						
1	Iron Ore (OR) Iron Ore Pellets		7,00,000 TPA (OR) 4,90,000 TPA	NMDC Ltd. Donimalai, BMM Ispat Ltd. Bellary	~100 Kms.	By Rail & By road (through covered trucks)
2	Coal	Indian Coal	4,55,000 TPA	Open Market	~300 Kms.	By road (through covered trucks)
		Imported Coal	2,91,200 TPA	Indonesian (Krishnapatnam Port)/ South Africa (Mangaloreport)	~500 Kms.	Through sea route Rail & Road
3	Dolomite		17,500 TPA	Local Area	~100 Kms.	By road (through covered trucks)
For manufacturing MS Billets) – 4,95,000 TPA						
1	Sponge Iron		4,00,000 TPA	Own generation	---	----
2	Sponge Iron		70,250 TPA	Nearby plants in Bellary	~100 Kms.	By road (through covered trucks)
3	Scrap/ end cuttings		70,000 TPA	(Purchased from Local Area + in-house)	~100 Kms.	By road (through covered trucks)
4	Pig Iron		50,000 TPA	Local Area	~100 Kms.	By road (through covered trucks)
For manufacturing Rolled Products– 3,30,000 TPA						
1	Hot Billets / MS Billets		3,60,000 TPA	Own generation	----	By Conveyor
2	LDO / LSHS		8320 KL	Local Market	~100 Kms.	By road (through covered trucks)

23.14.10 The existing Water requirement is 491 m^3/day, which is obtained from ground water and permission for the same has been obtained from KGWA, Govt. of Karnataka vide letter no. KGWA/GW/NOC/13/2020-21/2467 dated 07.12.2021. The water requirement for the proposed

expansion project is estimated as 1779 m^3/day, which will be obtained from the Ballari Muncipal Corporation (for supply of treated Sewage from Sewage Treatment Plant). The permission for supply of Treated Sewage water is obtained from Ballari Municipal Corporation Vide Lr. dated 07.12.2022.

23.14.11 Power required for the existing plant & CTO permitted units is 7.6 MW and is being sourced Captive Power. Power required for the proposed expansion project will be 53.9 MW. Total Power Requirement after proposed expansion will be 61.5 MW and same will be sourced from 34 MW Captive Power Plant & remaining 27.5 MW is from State Grid.

23.14.12 Baseline Environmental Studies:

<table>
<tr><td>Period</td><td>• Baseline data collection for the proposed project has been collected from 1st December, 2017 to 28th February, 2018 by M/s. Pragathi Labs & Consultants Pvt. Ltd. (NABET accredited) Hyderabad.
• Subsequently the baseline data has been collected for further period of One season i.e. from i.e. from 1st March, 2022 to 31st May 2022 for Re-validation of Baseline data for preparation of EIA report.</td></tr>
<tr><td>AAQ parameters at 8 locations</td><td>
<table>
<tr><th>Parameter</th><th>Concentration (during 1st December 2017 to 28th February 2018)</th><th>Concentration (during 1st March, 2022 to 31st May 2022)</th></tr>
<tr><td>$PM_{2.5}$</td><td>17 to 48 µg/m^3</td><td>22.9 to 42.9 µg/m^3</td></tr>
<tr><td>PM_{10}</td><td>45 to 80 µg/m^3</td><td>40.6 to 75.3 µg/m^3</td></tr>
<tr><td>SO_2</td><td>12 to 36 µg/m^3</td><td>12.4 to 28.9 µg/m^3</td></tr>
<tr><td>NO_2</td><td>13 to 30 µg/m^3</td><td>12.8 to 25.6 µg/m^3</td></tr>
<tr><td>CO</td><td>650 to 1130 µg/m^3</td><td>514 to 1028 µg/m^3</td></tr>
</table>
</td></tr>
<tr><td>AAQ modelling</td><td>• PM_{10} = 0.74 µg/m^3(1300 m in NW) PM_{10}(vehicular)=0.80 µg/m^3
• SO_2 =7.37 µg/m^3 (2000 m in NE)
• NO_x=4.73 µg/m^3 (1300 m in NE)NO_x= 5.5 µg/m^3
• CO= 3.56 µg/m^3</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>• pH :7.28 to 8.22
• TSS : 0.3 to 0.72 mg/l
• TDS :586 to 889 mg/l
• Total Hardness :279 to 458 mg/l
• Chlorides :322 to 458 mg/l
• Fluoride :0.85 to 1.2 mg/l
• Heavy metals (Iron -Fe): 0.11 to 0.25 mg/l</td></tr>
<tr><td>Surface water quality at 5 locations</td><td>pH :7.2 to 7.7, DO (in mg/l) : 3.9 to 5.1, BOD (in mg/I) : 2.6 to 3.3, COD (in mg/I) : 10.4 to 16.5, TDS (in mg/l) : 177 to 342, Chlorides (in mg/l) : 67 to 185; Sulphates (in mg/l) : 39 to 106</td></tr>
<tr><td>Noise levels</td><td>The equivalent day-night noise levels in the study zone are ranging from 45.85 dBA to 70.96 dBA.</td></tr>
<tr><td>Traffic assessment study findings</td><td>Traffic study has been conducted at National Highway # 150A which is Adjacent. from the plant site.
Transportation of raw material, fuel& finished product will be done 100 % by road.
Existing PCU is 1085 PCU/hr on NH#150A and existing Level of Service(LOS) is :</td></tr>
</table>

	<table><tr><th>Road</th><th>V(Volume in PCU/hr)</th><th>C(Capacity in PCU/hr)</th><th>Proposed V/C Ratio</th><th>LOS</th></tr><tr><td>Ballari to Hiriyur (NH # 150 A)</td><td>1085</td><td>2400</td><td>0.45</td><td>C</td></tr></table> PCU load after proposed project will be 15270 PCU/day +1097 PCU/day and Level of Service (LOS) will be <table><tr><th>Road</th><th>V(Volume in PCU/hr)</th><th>C (Capacity in PCU/hr)</th><th>Proposed V/C Ratio</th><th>LOS</th></tr><tr><td>Ballari to Hiriyur (NH # 150 A)</td><td>1255</td><td>2400</td><td>0.52</td><td>C</td></tr></table> Level of Service (LOS) of the Road as per IRC 73: 1980 <table><tr><td>V/C</td><td>LOS</td><td>Performance</td></tr><tr><td>0.0 – 0.2</td><td>A</td><td>Excellent</td></tr><tr><td>0.2 – 0.4</td><td>B</td><td>Very Good</td></tr><tr><td>0.4 – 0.6</td><td>C</td><td>Good</td></tr><tr><td>0.6 – 0.8</td><td>D</td><td>Fair/ Average</td></tr><tr><td>0.8 – 1.0</td><td>E</td><td>Poor</td></tr><tr><td>1.0 &Above</td><td>F</td><td>Very Poor</td></tr></table> *As per the above the LOS of the ROAD is categorised under 'C', which implies "GOOD".* *Hence the existing road is capable of taking the additional vehicular traffic due to the proposed project.*
Flora and fauna	No of schedule -1 fauna found.

23.14.13 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S.No.	**Waste**	**Quantity (TPA)**		**Method of disposal**
		Existing	**Proposed**	
1	Ash from DRI	18,000 (54 TPD)	63,000 (189 TPD)	Is being / will be used in proposed Fly Ash Brick making unit.
2	Dolochar	20,000 (60 TPD)	70,000 (210 TPD)	Partly will be utilized in captive AFBC boiler based power plant& remaining will be given to nearby FBC based power plants.
3	Kiln Accretion Slag	900 (3.0TPD)	3,150 (9.0 TPD)	Will be used in proposed Fly Ash Brick making unit
4	Wet Scraper Sludge	4,600 (14 TPD)	16,100 (48 TPD)	Will be used in proposed Fly Ash Brick making unit.
5	SMS Slag	4,700 (14 TPD)	49,500 (143 TPD)	Slag from SMS will be crushed and iron will be recovered & remaining non –magnetic inert material will be used in proposed Fly Ash Brick making unit / road construction /will be given to Road contractors.

S.No.	Waste	Quantity (TPA)		Method of disposal
		Existing	Proposed	
6	Mill scales from Rolling Mill	1440 (4.5 TPD)	6,600 (20 TPD)	Will be given to nearby Sinter Plants / Ferro Alloy units.
7	End cuttings from Rolling mill	2160 (6.5 TPD)	9,900 (30 TPD)	Will be recycled back to Induction Furnace as a rawmaterial
8	STP sludge	70 kg/day	166 Kg/day	Will be used as manure for Greenbelt development
8	Ash from CPP indian Coal	18,315 (55 TPD)	---	Will be used in proposed Fly Ash Brick making unit

NOTE:

1. It is proposed to install a Fly Ash brick making plant of 50,000 Bricks/day within the premises to utilize the entire Fly Ash, accretion slag, SMS slag etc. This was not proposed earlier.

2. Solid wastes such as dolochar, accretion slag, SMS slag will be stored in designated storage yard. Ash generated will be stored in silos only. There will not be any open storage of fly ash. All other storage yards will be on top of stable liner to avoid leaching of material to ground water.

Hazardous waste generation, storage & disposal:

1. Waste oil: 3.0 KL / Annum

This will be stored in covered HDPE drums in a designated area and will be given to CECB approved vendors.

2. Used Batteries

Used batteries will be given back to the supplier under buy back agreement with supplier.

23.14.14 Public Consultation:

Date of advertisement	20th January 2019
Name of newspapers	Vijaya Karnataka & Deccan Herald
Date on which Public Hearing conducted	20thFebruary 2018
Venue	Public Hearing was conducted at proposed expansion project site of M/s. VRKP Sponge & Power Plant LLP, Sy. No. 229, 288 & 289, Halakundi village, Bellary Taluk & District, Karnataka.
Chaired by	Additional District Magistrate, Ballari
Issues are	• Employment to local people in Existing Plant & proposed expansion. • Dust pollution caused by the industry. • Suffering from water problem • Air pollution and water pollution. • Ground water level is decreasing • Crop compensation to the farmers. • Social welfare work and infrastructure work • Proper plantation in and around the industry • Suffering from breathing problems, health problems

	• Employment to land losers • Concreting the road • Stone pitching to the new water tank • Construct new school building etc. Relaying of Road

Action plan as per MoEF&CC O.M. dated 30/09/2020:

M/s. VRKPSPP LLP is also proposing to adopt the following 4 nos. of Villages as a part of Social welfare development and has earmarked Rs. 11.4 Crores for Social & Infrastructure developmental activities based on Social Impact Assessment (SIA) after completion of Public Hearing.

1. Halakundi; 2. Honnahalli; 3. Mincheri; 4. Obulapuram villages

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
A). Based on Need Based & SIA Study						
1	**Community & Infrastructure Development Programmes**					
	i) Providing LED Street lighting with solar panels	Physical Nos. & village	20 nos. in Halakundi (v)& 20 Nos. in Mincheri (v)	20 nos. in Honahalii (v)	20 nos. in Obulapuram (v)	12
		Budget in Lakhs	6	3	3	
	iii) Mineral water plants	Physical Nos. & village	3 nos. in Honahalli (v)& 3 nos. in Mincheri (v)	3 nos. in Halakundi (v)	3 nos. in Obulapuram (v)	36
		Budget in Lakhs	18	9	9	
					Total	**48**
2	**Education**					
	i) Providing Sport kits for schools	Physical Nos. & village	15 nos. in Halakundi (v)& 15 Nos. in Mincheri (v)	15 nos. in Obulapuram (v)	15 nos. in Honnahalli (v)	31
		Budget in Lakhs	15	8	8	
	ii) Construction of class rooms in schools of size 8m x 5m x3 m	Physical Nos. & village	4 rooms in Honnahalli (v)	4 rooms in Mincheri (V)	--	40
		Budget Rs in Lakhs	20	20	--	
	iii)Providing support to Model Anganwadi Centre in	Physical Nos. & village	Halakundi (v) - 1 no.	Obulapuram (v) – 1 no.	Honnahalli (v) -1 no.	60

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
	consultation with State Women and Child Development Department					
		Budget Rs in Lakhs	20	20	20	
					Total	**137**
					TOTAL (A)	**179**
B). Based on Public Consultation/Hearing						
1	Impart training to the local villagers for skill development. a)DISHA Centre" along with necessary infrastructure for various vocational training program for employment generation in association with National Skill Development Mission (Automobile Repair, Welding, Electrical, Computer Hardware, Soft skills like computer programs etc.)	Physical Nos. & village	One DISHA centre			190
		Budget in Lakhs	70	60	60	
2	RWH pits in the surrounding villages & De-siltation of ponds	Physical Nos. & village	3 nos. in Honnahalli (v) &3 nos. in Micheri (v)	3 nos. in Halakundi (v)	3 nos. in Obulapuram (v)	9
		Budget in Lakhs	4.5	2.25	2.25	
3	Industry should do stone pitching to the new water tank constructed at Sy. No.55 to hold the water.	Physical Nos. & village	Halakundi (v)	---	---	10
		Budget in Lakhs	10	---	---	

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
4	Providing drinking water supply along with the surrounding industries by laying pipeline from Tungabhadra High Level Canal to Halakundi village	Physical Nos. & village	Halakundi (v)	---	---	30
		Budget in Lakhs	30	---	---	
5	Construction of water storage tank in Halakundi village	Physical Nos. & village	--	--	1 no. in Halakundi (v)	30
		Budget in Lakhs	--	--	30	
6	Construction of 15 bedded hospital with ambulance building building in association with other Industries	Physical Nos. & village	Halakundi (v)	---	---	100
		Budget in Lakhs	100	---	---	
7	Construction of class rooms in schools of size 8m x 5m x3 m	Physical Nos.&village	4 rooms in Halakundi (v)	---	---	20
		Budget in Lakhs	20	--	--	
8	Construction of Toilets in schools	Physical Nos.&village	4 no.s in Honnahalli (v) & 4 no.s in Halakundi (v)	--	--	20
		Budget in Lakhs	20	--	--	
9	Construction of concrete road from railway gate to the proposed industry.	Physical Nos.&village	--			40
		Budget in Lakhs		40		
10	Construction of Library in Halakundi village	Physical Nos.&village	---	1 no. in Halakundi (v)	--	10
		Budget in Lakhs	---	10	--	

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
11	Providing books, pens, scholarships to the poor children in near villages.	Physical Nos.&village	Honnahalli (v), Halakundi (v),Obulapuram (v) &Mincheri	--	--	10
		Budget in Lakhs	10			
12	Plantation in nearby villages & along the Roads	Physical Nos. & village	4000 nos. in Honnahalli (v) &	4000 nos. in Halakundi (v)	4000 nos. in Micheri (v)	12
		Budget in Lakhs	4.0	4.0	4.0	
					Total B	**481**
		TOTAL	**347.5**	**175.75**	**135.75**	
					Total(A+B)	**660**
13	**Village Adoption** • Halakundi village • Honnahalli village • Mincheri village • Obulapuram village	**Rs.120 Lakhs** per each Village For 4 nos. of Villages **– Rs. 480 Lakhs** • Community & Infrastructure Development Programs • Educational Facilities • For Skill development • Plantation • RWH measures				**480**
					GRAND TOTAL	**1140**

Recurring expenditures under CSR as per companies Act 2014

- Health checkup will be carried out periodically in surrounding villages i.e.Halakundi, Honnahalli, Mincheri&Obulapuram villages @ Rs 5.0Lakhs every year
- Rs. 2 Lakhs for regular maintenance of Road
- Rs. 1.0 Lakh per annum for maintenance of Library

23.14.15 The capital cost of the expansion project is Rs.570 Crores and the capital cost for environmental protection measures is proposed as Rs.45.7 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs.5.55Crores. The employment generation from the proposed expansion project is 505 direct & 325 Indirect. The details of cost for environmental protection measures is as follows:

S. No	Particulars	Capital Cost (Rs.in Crores)			Recurring Cost / Annum (Rs.in Crores)
1	**Air Emission Management**	**2022-24**	**2024-26**	**Total**	
	• Electro Static Precipitators (ESP)	18.0	---	18.0	1.8

	• Fume Extraction system with bag filters	4.5	4.5	9.0	0.9
	• other APCS & Conveyor systems	1.50	0.5	2.0	0.2
	• Stacks	1.8	0.6	2.4	0.072
	• Mechanical Dust sweepers	0.15	0.15	0.3	0.03
	• Water Sprinklers	0.05	0.05	0.10	0.005
2	**Wastewater Management**				
	• for New ETP	1.50	---	1.50	0.3
	• for STP	0.40	---	0.40	0.1
	• for Garland drains	0.15	0.15	0.30	0.03
	• for Settling ponds	0.01	0.01	0.02	0.002
3	**Solid waste Management**				
	• Fly Ash Handling & disposal	1.50	---	1.50	0.45
	• Slag Handling & Disposal	0.1	0.1	0.20	0.05
	• Hazardous waste storage & disposal	0.05	0.05	0.10	0.05
	• Municipal solid waste storage & disposal	0.03	0.02	0.05	0.025
4	Greenbelt development, Land scaping	0.40	0.20	0.60	0.36
5	Land scaping along Nallah & Canal	0.05	0.05	0.10	0.02
6	Noise Management	0.15	0.05	0.20	0.1
7	RWH in Plant	0.10	0.05	0.15	0.015
8	Storm water management	0.50	0.22	0.72	0.07
9	Fire Safety Systems	2.00	0.50	2.50	0.25
10	**Environmental Monitoring**				
	• CEMS	0.40	0.30	0.70	0.07
	• CAAQMS	0.40	0.40	0.80	0.16
	• Environment Monitoring	0.00	0.00	0.00	0.09
	• Performance monitoring of APCS	0.00	0.00	0.00	0.01
11	**Occupational Health & Safety**				
	• Occupational Health centre with Ambulance	0.30	0.20	0.50	0.15
	• Personal Protective Equipment's (PPEs)	0.20	0.05	0.25	0.25
	Total	**34.24**	**8.15**	**42.39**	**5.489**

23.14.16 Existing green belt has been developed in 11.7 ha area which is about 33% of the existing plant area of 35.6 ha with total sapling of 14,225 Trees. Proposed greenbelt will be developed in 17.68 Ha. which is about 33% of the additional land area of 52.55 Ha. Thus total of 29.38 Ha. area (33.3 % of total project area i.e. 88.15 Ha.) will be developed as greenbelt. A 10 m to 85 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 74,225 saplings will be planted and nurtured in 29.38 hectares in 2 years.

23.14.17 It is submitted that there is no violation under EIA notification 2006/no court cases/no show cause/no direction related to the project under consideration.

Certified Compliance report from Regional office, MoEFCC

23.14.18 The status of the compliance report of conditions in earlier E.C. was issued by IRO, BANGALORE Vide No. 12.1/SEIAA/143/Kar/856 Dated 31st October 2022 in the name of M/s. VRKP Sponge & Power Plant LLP.

23.14.19 The proposal was initially considered in the 19th meeting of the EAC for Industry-I sector held on 16th & 19th December, 2022 wherein the Committee deferred the proposal. The deliberations and recommendations of the EAC are as follows:

Deliberations by the Committee (EAC during 16th & 19th December, 2022)

23.14.20 The Committee noted the following:

1. The instant proposal is for expansion of Sponge Iron Plant from 90,000 TPA to 4,40,000 TPA, Steel Melting Shop from 47,000 TPA to 5,42,000 TPA, Rolling Mill from 72,000 TPA to 4,02,000 TPA, Captive Power Plant from 10 MW to 34 MW.
2. The existing project was accorded environmental clearance vide lr.no. SEIAA: 31: IND: 2007 dated 01.01.2009 for establishment of 10 MW CPP, 12 T Induction Furnace with CCM & 72,000 TPA Rolling Mill in the name of M/s. Hothur Steels. EC has been transferred from M/s. Hothur Steels to M/s. VRKP Sponge & Power Plant LLP vide letter no. SEIAA 31 IND 2007 dated 23.12.2016. Consent to Operate for the existing unit was accorded by Karnataka State Pollution Control Board vide lr. No. AW-326208 dated 16.08.2021. The validity of CTO is up to 30.06.2026.
3. The EAC noted the following with respect to the instant proposal:
    - Form I along with PFR for proposed expansion was submitted to MoEF&CC, New Delhi on 11.10.2017 (by *M/s. Pragathi Labs & Consultants Pvt. Ltd. – Earlier Consultant*)
    - Proposal for proposed expansion for issue of TOR was considered in 24th EAC meeting held on 14.11.2017.
    - Terms of Reference (TOR) for the proposed expansion project was issued vide letter no. J-11011/527/2017-IA II (I) dated 29.11.2017.
    - Draft EIA report along with Executive Summary submitted to Karnataka Pollution Control Board (KSPCB) for conduct of Public Hearing on 04.06.2018.
    - Public Hearing was conducted by KSPCB on 20.02.2019.
    - Public Hearing minutes was issued by KSPCB on 20.05.2019.
    - Final EIA report along with PH proceeding & reply by management on issues raised in PH submitted to MoEF&CC in PARIVESH Portal for EC appraisal on 31.08.2019 (which was before expiry of TOR validity i.e. 28.11.2020 (as per O.M. issued by MoEF&CC dated 29th August 2017).

- Subsequently EDS # 1 was raised by Ministry on 13.09.2019 as the Report is incomplete and having shortcomings.
- Later, due to certain unavoidable circumstances, PP has dismissed M/s. Pragathi Labs & Consultants Pvt. Ltd. as their Environment Consultant for proposed expansion project and accordingly obtained NOC from them.
- M/s. VRKP SP LLP have submitted reply to EDS # 1, intimating change in consultant on 13.03.2020.
- EDS # 2 was raised by MoEF&CC on 27.03.2020.

Now, due to change of the Environment Consultant and appointing (M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. Hyderabad) for Revalidating the Final EIA report and duly addressing the points issued vide reference -3 (EDS on 13/09/2019) cited above and Fresh Baseline data for One season i.e. from March 2022 to May 2022.

The matter has been examined and EAC noted that Even PP has only obtained CCR on 31.10.2022. As per TOR dated 29.11.2017, PP has to submit the latest CCR of MoEFCC within validity period of TOR.

4. The EAC further noted that ToR for the proposed expansion project was granted on 29.11.2017 valid for a period of three years i.e., upto 28.11.2020. Further, Project Proponent/Consultant has reported that since final application for EC was submitted to MoEF&CC in PARIVESH Portal on 31.08.2019 (i.e. before expiry of TOR validity i.e. 28.11.2020), therefore, they have not applied for extension of ToR validity in pursuance to Ministry's O.M. dated 29.08.2017. However, the EAC noted that the PP submitted incomplete application without the complete TOR compliances.

5. The EAC also argued that since the EC proposal submitted on 31.08.2019 was not complete as per the EIA Notification, 2006, an EDS was raised by the Ministry for furnishing all the details for appraisal by the EAC. The PP/Consultant could not reply to the EDS for the reasons reported in point 3 above and has now applied again for EC on 30.11.2022 after obtaining CCR from IRO on 31.10.2022.

6. In view of above facts, the EAC recorded that as per the instant application the TOR validity has expired as per the Ministry's provision of maximum 4 years of ToR validity . In pursuance to Ministry's O.M. dated 08.06.2022 pertaining to standardising the validity of baseline data and public consultation, para 6 of said OM states that the baseline data and Public Hearing shall not be more than three years old at the time of submission of application for consideration of EC. In the instant case, though PP has recollected the baseline data (March 2022 to May 2022), but the PH (20.02.2019) is now more than 3 years old.

7. Therefore, the EAC is of the opinion that it is imperative that comments of the Policy Sector of IA Division may be obtained prior to appraisal of the instant proposal w.r.t. ToR and PH validity to clarify whether the instant proposal qualifies to be appraised in pursuance to the Ministry's O.M. issued from time to time under the provisions of EIA Notification, 2006 or not.

8. The PP/Consultant also agreed to the suggestions of EAC to obtain the comments of the Policy Division of MoEF&CC.

Recommendations of the Committee (EAC during 16th & 19th December, 2022)

23.14.21 In view of the foregoing and after detailed deliberations, the Committee recommended to **defer the proposal** and advised the Ministry/ PP to first obtain the comments of the Policy Sector of IA Division due to complexity of the timelines for submission of the proposal w.r.t. validity of ToR and validity of PH to clarify whether the instant proposal qualifies to be appraised in pursuance to the Ministry's O.M. issued from time to time under the provisions of EIA Notification, 2006 or not due to the facts referred in para no. 23.14.20 above. The proposal shall be considered after obtaining the requisite information.

23.14.22 The Policy Division has submitted its views on 12.01.2023 and based on their views and understanding of EAC (Industry-1), the proposal was again placed for consideration of the EAC during 23rd meeting of the EAC for Industry-I sector held on 14-15th February, 2023. The deliberations and recommendations of the EAC are as follows:

Written representations:

23.14.23 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 15.02.2023 through email dated 15.02.2023 submitted the Revised Budget for Social & Infrastructure developmental activities as updated at para 23.14.14 above.

Deliberations by the Committee

23.14.24 The Committee noted the following:

1. The instant proposal is for expansion of Sponge Iron Plant from 90,000 TPA to 4,40,000 TPA, Steel Melting Shop from 47,000 TPA to 5,42,000 TPA, Rolling Mill from 72,000 TPA to 4,02,000 TPA, Captive Power Plant from 10 MW to 34 MW.
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with addendum to the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation

measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

5. The EAC has deliberated the validity of TOR and PH and the justification provided by the PP and found in order.

6. The existing project was accorded environmental clearance vide lr.no. SEIAA: 31: IND: 2007 dated 01.01.2009 for establishment of 10 MW CPP, 12 T Induction Furnace with CCM & 72,000 TPA Rolling Mill in the name of M/s. Hothur Steels. EC has been transferred from M/s. Hothur Steels to M/s. VRKP Sponge & Power Plant LLP vide letter no. SEIAA 31 IND 2007 dated 23.12.2016. Consent to Operate for the existing unit was accorded by Karnataka State Pollution Control Board vide lr. No. AW-326208 dated 16.08.2021. The validity of CTO is up to 30.06.2026.

7. Total land earmarked for the project is 88.15 Ha. (217.82 Acres) i.e. partly in Existing Land area of 35.6 Ha. (87.97 Acres) & adjoining Additional Land of 52.55 Ha. (129.85 Acres]. 183.64 Ac. of land is in possession of the management and Agreement of sale entered for the remaining 34.18 Ac. Of Land between M/s. Hothur Steels & M/s. VRKP Sponge & Power Plant LLP.

8. The nearest habitation to plant is Halakundi village located at 1.4 away from the project site boundary in NNE direction.

9. The existing Water requirement is 491 m^3/day, which is obtained from ground water. The water requirement for the proposed expansion project is estimated as 1779 m^3/day, which will be obtained from the Ballari Muncipal Corporation (for supply of treated Sewage from Sewage Treatment Plant).

10. Seasonal Nala (N to S direction) is passing through the site. Also, Tungabhadra High level Canal (4.8 km) and AllipurKere Reservoir (9.0 km) are flowing within 10 Km. radius of the plant site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.

11. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.

12. The EAC noted that existing green belt has been developed in 11.7 ha area which is about 33% of the existing plant area of 35.6 ha with total sapling of 14,225 Trees. Proposed greenbelt will be developed in 17.68 Ha. which is about 33% of the additional land area of 52.55 Ha. Thus total of 29.38 Ha. area (33.3 % of total project area i.e. 88.15 Ha.) will be developed as greenbelt. Total no. of 74,225 saplings will be planted and nurtured in 29.38 hectares in 2 years.

13. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.

14. The EAC noted that M/s. VRKP SPP LLP has proposed to adopt the 4 nos. of Villages namely Halakundi, Honnahalli, Mincheri and Obulapuram as a part of Social welfare development and has earmarked Rs. 11.4 Crores for Social & Infrastructure developmental activities based on Social Impact Assessment (SIA) after completion of Public Hearing.

The Committee deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.

15. The Committee deliberated upon the certified compliance report of IRO MoEFCC and found it satisfactory.

16. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

17. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee:

23.14.25 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the written submission on portal** under the provisions of EIA Notification, 2006 and subject to the stipulation of following specific conditions and general conditions;

A. Specific Condition:

i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

iii. The water requirement of 491 m^3/day is met from ground water. The water requirement of 1779 m^3/day for the proposed expansion project shall be met from the Ballari Muncipal Corporation (for supply of treated Sewage from Sewage Treatment Plant) after obtaining necessary permission. PP shall also explore the possibility to meet all its water requirement from Treated water/alternate source of water to minimise the use of ground water.

iv. Following additional arrangements to control fugitive dust shall be provided:
   a. Fog / Mist Sprinklers at all conveyors point and on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
   b. Proper covered vehicle shall be used while transport of materials.

c. Wheel Washing mechanism shall be provided in entry and exit gates with complete recirculation system.

v. All internal road and connecting road from project site to main highway shall be developed and maintained with suitable Million Axle Standard (MSA) as per the traffic load due to existing and proposed project.

vi. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.

vii. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.

viii. Particulate matter emission from stacks shall be less than 30 mg/Nm^3. Action plan submitted to limit the dust emission shall be strictly implemented.

ix. CEMS shall be provided on all process stacks and the signal shall be received in plant control room for central control of APCDs installed in the plant

x. 85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil as a fuel.

xi. Ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system shall be used.

xii. Solid waste utilization

a. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
b. PP shall recycle/reuse 100 % solid waste generated in the plant.
c. Used refractories shall be recycled as far as possible.

xiii. Seasonal Nala (N to S direction) is passing through the site. Also, Tungabhadra High level Canal (4.8 km) and AllipurKere Reservoir (9.0 km) are flowing within 10 Km. radius of the plant site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

xiv. The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.

xv. The company shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.

xvi. The nearest habitation to plant is Halakundi village located at 1.4 away from the project site boundary in NNE direction. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include this locations in its environmental monitoring programme.

xvii. As committed by the PP to adopt adopt the 4 nos. of Villages namely Halakundi, Honnahalli, Mincheri and Obulapuram, project proponent shall prepare and implement a robust plan for socio-economic development to develop them into model villages in 10 years.

xviii. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

xix. Three tier Green Belt shall be developed in at least 33% of the project area by January, 2023 as per the commitment with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Gap filling shall be undertaken and survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. PP shall develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy to act as green barrier for air pollution & noise levels towards the Halakundi village inside the plant premises. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

xx. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

xxi. Air Cooled condensers shall be used in the captive power plant.

xxii. During operational phase at Captive Power Plant, PP shall measure coal dust exposures and to maintain coal dust exposures within stipulated standards at coal handling areas. PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.

xxiii. Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, fixing the location of fire water tanks, separate power system for fire fighting, involvement of qualified and trained fire personnel, nearest fire station & time required to reach the proposed site shall be prepared and implemented.

xxiv. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

xxv. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

xxvi. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

B. General conditions:

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as two Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

v. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.

vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.

vii. Plant internal roads shall be concreted and a vacuum cleaner shall be used to regularly clean the roads.

viii. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.

ix. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 414 (E) dated 30th May 2008; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF); S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.

iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.

IV. Noise monitoring and prevention

i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.

VI. Waste management

i. Used refractories shall be recycled as far as possible.
ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused in melting Furnaces.
iii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
ii. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames", when PP comes for EC proposal. This study shall be formulated keeping in view of India's Net-zero commitment at the COP-26 Climate Summit.

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE).
iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.
ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

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

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

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

xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

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

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

The meeting ended with thanks to the Chair.

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ANNEXURE –1

Standard ToR in line with Appendix III of the EIA, 2006. applicable to Proposals Under Industry-1 Sector

Preliminary requirements:

i. EIA/EMP report cover page shall consists of project title with location, applicable schedule of the EIA Notification, 2006, ToR letter No. with date, study period along with EIA consultant & laboratory details with QCI/NABET/NABL accreditation certificate detail.

ii. Besides, following points shall be compiled as per QCI/NABET norms:
   a. Disclaimer by the EIA consultant.
   b. Declaration by the Functional Area Experts contributed to the EIA study and declaration by the head of the accredited consultant organization/authorized person.
   c. Undertaking by the project proponent owning the contents (information and data) of the EIA/EMP report.
   d. Undertaking by the EIA consultant regarding compliance of ToR issued by MoEF&CC.
   e. Consultant shall submit the Plagiarism Certificate for the EIA/EMP Report.

Structure of EIA/EMP report

Executive Summary

i. Table of Contents of the EIA report including list of tables/figures/annexures/abbreviations/symbols/notations.

ii. Point wise compliance to the ToR issued by MoEF&CC.

iii. Executive Summary
   I. Introduction
      i. Name of the project along with applicable schedule and category as per EIA, 2006.
      ii. Location and accessibility
   II. Project description
      i. Resource requirements (Land; water; fuel; manpower)
      ii. Operational activity
      iii. Key pollution concerns
   III. Baseline Environment Studies
      i. Ambient air quality
      ii. Ambient Noise quality
      iii. Traffic study
      iv. Surface water quality
      v. Ground water quality
      vi. Soil quality
      vii. Biological Environment
      viii. Land use
      ix. Socio-economic environment
   IV. Anticipated impacts

i. Impact on ambient air quality
ii. Impact on ambient noise quality
iii. Impact on road and traffic
iv. Impact on surface water resource and quality
v. Impact on ground water resource and quality
vi. Impact on terrestrial and aquatic habitat
vii. Impact on socio-economic environment

V. Alternative analysis
VI. Environmental Monitoring program
i. Ambient air, noise, water and soil quality
ii. Emission and discharge from the plant
iii. Green belt
iv. Social parameters

VII. Additional studies
i. Risk assessment
ii. Public consultation
iii. Action plan to address the issues raised during public consultation as per MoEF&CC O.M. dated 30/09/2020

VIII. Project benefits
IX. Environment management plan
i. Air quality management plan
ii. Noise quality management plan
iii. Solid and hazardous waste management plan
iv. Effluent management plan
v. Storm water management plan
vi. Occupational health and safety management plan
vii. Green belt development plan
viii. Socio-economic management plan
ix. Project cost and EMP implementation budget.

EIA/EMP Report

1. Introduction

i. Background about the project
ii. Need of the project
iii. Purpose of the EIA study
iv. Scope of the EIA study

2. Project description

A. Site Details

i. Location of the project site covering village, Taluka/Tehsil, District and State.
ii. Site accessibility
iii. A digital toposheet in pdf or shape file compatible to google earth of the study area of radius of 10km and site location preferably on 1:50,000 scale. (including all eco-sensitive areas and environmentally sensitive places).

iv. Latest High-resolution satellite image data having 1 m - 5 m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary co-ordinates. Area must include at least 100 m all around the project location.

v. Environment settings of the site and its surrounding along with map.

vi. A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.

vii. In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.

viii. In case if the project site is in vicinity of the river, the industry shall not be located within the river flood plain corresponding to one in 25 years flood, as certified by concerned District Magistrate/Executive Engineer from State Water Resources Department (or) any other officer authorized by the State Government for this purpose as per the provisions contained in the MoEF&CC Office Memorandum dated 14/02/2022.

ix. In case of canal/ nala/ seasonal drain and any other water body passing through project site, the PP shall submit the suitable steps /conservation plan/mitigation measures along with contouring, Run -off calculations, disposal etc. A robust and full proof Drainage Conservation scheme to protect the natural drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided in the report.

x. Type of land, land use of the project site needs to be submitted.

xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process as per the MoEF&CC O.M. dated 7/10/2014 shall be furnished.

xii. Project proponent shall prepare Engineering layout plan showing all internal roads minimum 6 m width and 9 m turning radius for smooth traffic flow inside including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.

xiii. Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including Rain Water Harvesting details with calculations mentioning about GW recharge along with relevant drawing.

xiv. A detailed report covering all aspects of Fire Safety Management and Fire Emergency Plan shall be submitted.

xv. Details of drone survey for the site, needs to be included in report and presented before the EAC during appraisal of the project.

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

i. Status of Forest Clearance for the use of forest land shall be submitted.
ii. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10 km radius of national park/sanctuary wherein final ESZ notification is not in place as per MoEF&CC Office Memorandum dated 8/8/2019.
iii. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.
iv. Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna along with budget and action plan, if any exists in the study area.

C. Salient features of the project

i. Products with capacities in **Tons per Annum** for the proposed project.
ii. If expansion project, status of implementation of existing project, details of existing/proposed products with production capacities in Tons per Annum.
iii. Site preparatory activities.
iv. List of raw materials required and their source along with mode of transportation.
v. Other than raw materials, other chemicals and materials required with quantities and storage capacities.
vi. Manufacturing process details along with process flow diagram of proposed units.
vii. Consolidated materials and energy balance for the project.
viii. Total requirement of surface/ ground water and power with their respective sources, status of approval.
ix. Water balance diagram
x. Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase.
xi. Man-power requirement.
xii. Cost of project and scheduled time of completion.
xiii. In case of expansion projects, project proponent shall submit structural stability certificate showing whether existing structure withstand for proposed expansion activity.
xiv. Brief on present status of compliance (Expansion/modernization proposals)
    a. Cumulative Environment Impact Assessment for the existing as well as the proposed expansion/modernization shall be carried out.
    b. In case of ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next two years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source.
    c. Copy of all the Environment Clearance(s) including Amendments/validity of extension/transfer of EC, there to obtained for the project from MoEF&CC/SEIAA shall be attached as Annexures. A Certified Compliance Report (CCR) of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change/ or concerned authority as per OM

No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022 on the status of compliance of conditions stipulated in all the existing environment clearances including amendments shall be provided. A Certified Compliance Report (CCR) issued by the concerned Authority shall be valid for a period of one year from the date of inspection.

d. In case the existing project has not obtained Environment Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. A proper justification needs to be submitted along with documentary proof. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 1994 or 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of CTO from the Regional Office of the SPCB shall be submitted, as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022. CCR on CTO conditions issued by the concerned SPCBs/PCCs shall be valid for a period of one year from the date of inspection of the project.

3. Description of the Environment

i. Study period

ii. Approach and methodology for data collection as furnished below.

Attributes	Sampling		Remarks
	Network	Frequency	
A. Air Environment			
Micro-Meteorological • Wind speed (Hourly) • Wind direction • Dry bulb temperature • Wet bulb temperature • Relative humidity • Rainfall • Solar radiation • Cloud cover • Environmental Lapse Rate	Minimum 1 site in the project impact area	1 hourly continuous	• IS 5182 Part 1-20 • Site specific primary data is essential • Secondary data from IMD, New Delhi • CPCB guidelines to be considered.
Pollutants • $PM_{2.5}$	At least 8-12 locations	As per National Ambient Air Quality Standards, CPCB Notification.	• Sampling as per CPCB guidelines • Collection of AAQ data (except in monsoon season) • Locations of various stations for different
• PM_{10}			
• SO_2			
• NOx			
• CO			
• HC			

Attributes	Sampling		Remarks
	Network	Frequency	
• Other parameters relevant to the project and topography of the area			parameters should be related to the characteristic properties of the parameters. • The monitoring stations shall be based on the NAAQM standards as per GSR 826(E) dated 16/11/2009 and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests, • Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAAQM Notification of 16/11/2009 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.
B. Noise			
• Hourly equivalent noise levels	At least 8-12 locations	As per CPCB norms	-
C. Water			

Attributes	Sampling		Remarks
	Network	Frequency	
Parameters for water quality • pH, temp, turbidity, magnesium hardness, total alkalinity, chloride, sulphate, nitrate, fluoride, sodium, potassium, salinity • Total nitrogen, total phosphorus, DO, BOD, COD, Phenol • Heavy metals • Total coliforms, faecal coliforms • Phyto-plankton • Zoo-plankton • Microalgae/microalgal bloom	Samples for water quality should be collected and analyzed as per: • IS: 2488 (Part 1-5) methods for sampling and testing of Industrial effluents • Standard methods for examination of water and wastewater analysis published by American Public Health Association.		
For River Bodies • Total Carbon • pH • Dissolved Oxygen • Biological Oxygen Demand • Free NH4 • Boron • Sodium Absorption Ratio • Electrical Conductivity • TDS	• Surface water quality of the nearest River (60m upstream and downstream) and other surface water bodies	• Yield of water sources to be measured during critical season • Standard methodology for collection of surface water (BIS standards)	
For Ground Water	• Ground water monitoring data should be collected at minimum of 8 locations (from existing wells /tube wells/existing current records) from the study area and shall be included.		
D. Traffic Study			
• Type of vehicles • Frequency of vehicles for transportation of materials	-		

Attributes	Sampling		Remarks
	Network	Frequency	
• Additional traffic due to proposed project • Parking arrangement			
E. Land Environment			
Soil • Particle size distribution • Texture • pH • Electrical conductivity • Cation exchange capacity • Alkali metals • Sodium Absorption Ratio (SAR) • Permeability • Water holding capacity • Porosity	Soil samples be collected as per BIS specifications		
Land use/Landscape • Location code • Total project area • Topography • Drainage (natural) • Cultivated, forest, plantations, water bodies, roads and settlements	-		
E. Biological Environment			
Aquatic • Primary productivity • Aquatic weeds • Enumeration of phyto plankton, zoo plankton and benthos • Fisheries • Diversity indices • Trophic levels • Rare and endangered species • Marine Parks/ Sanctuaries/ closed	• 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. Indicator species which indicate ecological and environment degradation should be identified and included to clearly state whether the proposed project would result in to any adverse effect on any species. • Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site. • For forest studies, direction of wind should be considered while selecting forests.		

Attributes	Sampling		Remarks
	Network	Frequency	
areas /coastal regulation zone (CRZ) **Terrestrial** • Vegetation-species list, economic importance, forest produce, medicinal value • Importance value index (IVI) of trees • Fauna • Avi fauna • Rare and endangered species • Sanctuaries / National park / Biosphere reserve • Migratory routes	• Secondary data to collect from Government offices, NGOs, published literature.		
F. Socio-economic			
• Demographic structure • Infrastructure resource base • Economic resource base • Health status: Morbidity pattern • Cultural and aesthetic attributes • Education	• Socio-economic survey is based on proportionate, stratified and random sampling method. • Primary data collection through questionnaire • Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. agencies		

iii. Interpretation of each environment attribute shall be enumerated and summarized as given below:

- Ambient air quality
- Ambient Noise quality
- Surface water quality
- Ground water quality
- Soil quality
- Biological Environment
- Land use
- Socio-economic environment

4. **Anticipated Environment Impacts and mitigation measures (In case of expansion, cumulative impact assessment shall be carried out)**
    i. Identification of potential impacts in the form of a **matrix** for the construction and operation phase for all the environment components

Activity	Environment	Ecological	Socio-economic
Construction phase			
Operation phase			

    ii. Impact on ambient air quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
        a. Construction phase
        b. Operation phase
            - Details of stack emissions from the existing as well as proposed activity.
            - Assessment of ground level concentration of pollutants from the stack emission based on AQIP Modelling The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any along with wind rose map for respective period
            - Impact on ground level concentration, under normal, abnormal and emergency conditions. Measures to handle emergency situations in the event of uncontrolled release of emissions.
    iii. Impact on ambient noise quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
        a. Construction phase
        b. Operation phase
    iv. Impact on traffic (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
        a. Construction phase
        b. Operation phase
    v. Impact on soil quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
        a. Construction phase
        b. Operation phase
    vi. Impact on land use (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
        a. Construction phase
        b. Operation phase
    vii. Impact on surface water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
        a. Construction phase
        b. Operation phase
    viii. Impact on ground water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
        a. Construction phase

b. Operation phase

ix. Impact on terrestrial and aquatic habitat (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase

x. Impact on socio-economic environment (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase

xi. Impact on occupational health and safety (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase

5. Analysis of Alternatives (Technology & Site)

i. No project scenario
ii. Site alternative
iii. Technical and social concerns
iv. Conclusion

6. Environmental Monitoring Program

i. Details of the Environment Management Cell
ii. Performance monitoring schedule for all pollution control devices shall be furnished.
iii. Corporate Environment Policy
   a. 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.
   b. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environment or forest norms / conditions? If so, it may be detailed in the EIA.
   c. What is the hierarchical system or Administrative order of the company to deal with the environment issues and for ensuring compliance with the environment clearance conditions? Details of this system may be given.
   d. Does the company have system of reporting of non compliances / violations of environment 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

iv. Action plan for **post-project environment monitoring matrix**:

Activity	**Aspect**	**Monitoring Parameter**	**Location**	**Frequency**	**Responsibility**
Construction phase					
Operation phase					

7. Additional Studies

i. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage after offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

ii. Details of adoption/ implementation status/plan to achieve the goal of Glasgow COP26 Climate Submit with regard to enhance the non-fossil energy, use of renewable energy, minimization of net carbon emission and carbon intensity with long-term target of "net Zero" emission.

iii. Implementation status/measures adopted for avoiding the generation of single used plastic waste.

iv. In cases the project is located in Critically and Severely Polluted Areas, additional mitigation measures adopted and detailed action plan to be submitted in the EIA/EMP Report as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-23/2028-IA.III dated 5/07/2022 has to be submitted.

v. Public consultation details (Entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings).

vi. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.

vii. Summary of issues raised during public consultation along with action plan to address the same as per MoEF&CC O.M. dated 30/09/2020

S No	**Physical activity and action plan**		**Year of implementation (Budget in INR)**			**Total Expenditure (Rs. in Crores)**
	Name of the Activity	**Physical Targets**	**1st**	**2nd**	**3rd**	

viii. Risk assessment

- Methodology
- Hazard identification
- Frequency analysis
- Consequence analysis
- Risk assessment outcome

ix. Emergency response and preparedness plan

8. Project Benefits

i. Environment benefits

ii. Social infrastructure

iii. Employment and business opportunity
iv. Other tangible benefits

9. Environment Cost Benefit Analysis

i. Net present value
ii. Internal rate of return
iii. Benefit cost ratio
iv. Cost effectiveness analysis

10. Environment Management Plan (Construction and Operation phase)

i. Air quality management plan
ii. Noise quality management plan
iii. Action plan for hazardous waste management
iv. Action plan for solid waste management
v. Action plan for e-waste management.
vi. Action plan for plastic waste management.
vii. Action plan for construction and demolition waste management.
viii. Effluent management plan
ix. Storm water management plan
x. Rain water harvesting plan
xi. Plan for maximum usage of waste water/treated water in the Unit
xii. Occupational health and safety management plan
xiii. Green belt development plan: An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in 33% of total area with a tree density shall not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt shall be monitored on periodic basis to ensure that survival rate not be less than 80 %.
xiv. Socio-economic management plan
xv. Wildlife conservation plan (In case of presence of schedule I species)
xvi. Total capital cost and recurring cost/annum for environment pollution control measures shall be included.

11. Conclusion of the EIA study

12. In addition to the above, 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.

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ANNEXURE-2

Standard ToRs FOR CEMENT INDUSTRY [3(b)]

1. Limestone and coal linkage documents along with the status of environment clearance of limestone and coal mines.
2. Quantum of production of coal and limestone from coal & limestone mines and the projects they cater to;
3. Present land use shall be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
4. If the raw materials used have trace elements, an environment management plan shall also be included.
5. Plan for the implementation of the recommendations made for the cement plants in the Corporate Responsibility for Environmental Protection (CREP) guidelines shall be prepared.
6. Energy consumption per ton of clinker and cement grinding
7. Provision of waste heat recovery boiler
8. Arrangement for co-processing of hazardous waste in cement plant.
9. Provision of Alternate fuels.
10. Details of Implementation of Fly Ash Management Rules
11. Emission/Effluent norms as per GSR 496 (E) dated 9/5/2016 [EPA Rules 1986].
12. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
13. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
14. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.
15. Action plan for 100 % solid waste utilization shall be submitted.
16. PM (PM_{10} and $P_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM_{10} to be carried over.

Standard ToRs FOR INTEGRATED STEEL PLANT [3(a)]

1. Iron ore/coal linkage documents along with the status of environment clearance of iron ore and coal mines.
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact.
3. For Large ISPs, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.

5. PM (PM_{10} and $PM_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM_{10} to be carried over.
6. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
7. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
8. Plan for slag utilization
9. Plan for utilization of energy in off gases (coke oven, blast furnace)
10. System of coke quenching adopted with justification.
11. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
12. Trace metals in waste material specially in slag.
13. Trace metals in water
14. Details of proposed layout clearly demarcating various units within the plant.
15. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
16. Details on design and manufacturing process for all the units.
17. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
18. Details on requirement of energy and water along with its source and authorization from the concerned department. Location of water intake and outfall points (with coordinates).
19. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
20. Details on toxic content (TCLP), composition and end use of slag.
21. Fourth Hole fume extraction system shall be provided for submerged Arc Furnace (SAF). Waste heat recovery (WHR) system shall be installed to recover the sensible heat from flue gases of electric arc furnace (EAF).
22. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].
23. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
24. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
25. Action plan for 100 % solid waste utilization shall be submitted.
26. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.

Standard ToRs FOR METALLURGICAL INDUSTRY (Ferrous and Non-ferrous)[3(a)]

1. A 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
2. Plan for the implementation of the recommendations made for the proposed Unit in the Corporate Responsibility for Environmental Protection (CREP) guidelines.
3. Plan for solid wastes utilization.

4. Plan for utilization of energy in off gases (coke oven, blast furnace)
5. System of coke quenching adopted with full justification.
6. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
7. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
8. Details on toxic content using Toxicity Characteristic Leaching Procedure (TCLP), composition and end use of slag.
9. 100 % dolo char generated in the plant shall be used to generate power.
10. Fourth Hole fume extraction system shall be provided for SAF.WHR system shall be installed to recover sensible heat from flue gases of EAF. Provision for installation of jigging and briquetting plant to utilise the fines generated in the process.
11. No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.
12. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].
13. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
14. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be submitted.
15. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
16. Action plan for 100 % solid waste utilization shall be submitted.
17. PM (PM_{10} and $P_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM_{10} to be carried over.

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Standard ToRs FOR PULP AND PAPER INDUSTRY [5(i)]

1. A note on pulp washing system capable of handling wood pulp shall be included.
2. Manufacturing process details for the existing and proposed plant shall be included. Chapter on Pulping & Bleaching shall include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery shall include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln
3. Studies shall be conducted and a chapter shall be included to show that Soda pulping process can be employed for Eucalyptus/Casuarina to produce low kappa (bleachable) grade of pulp.

4. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be closed within 2 years of issue of environment clearance.
5. A commitment that no extra chlorine base bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills. Plan for reduction of water consumption.
6. Undertaking to comply with the norms stipulated in the S.O. 3187 (E) dated 7/10/2016 for the projects located in Ganga basin.
7. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
9. Action plan for 100 % waste utilization shall be submitted.

Standard ToRs FOR LEATHER/SKIN/HIDE PROCESSING INDUSTRY [4(f)]

1. Justification for engaging a particular type of process (raw hide/skin into semi finishing or finished leather, semi-finished leather to finished leather, dry finishing operations, chrome/vegetable tanning, etc.).
2. Details regarding complete leather/ skin/ hide processing including the usage of sulphides, nitrogen compounds, chromium or other tanning agents, post-tanning chemicals, biocides, etc., along with the material balance shall be provided.
3. In case of chrome tanning, details of the chrome recovery plant, management of shavings/solid waste including safe disposal.
4. Details on reuse of soak liquor / saline stream from membrane system, if applicable, to the extent possible in pickling activity after required treatment. Also, mention the salt recovery measures.
5. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
6. Action plan for 100 % waste utilization shall be submitted.

Standard ToRs FOR COKE OVEN PLANT [4(b)]

1. Justification for selecting recovery/non-recovery (beehive) type batteries with the proposed unit size.
2. Details of proposed layout clearly demarcating various facilities such as coal storages, coke making, by-product recovery area, etc within the plant.
3. Details of coke oven plant (recovery/non-recovery type) including coal handling, coke oven battery operations, coke handling and preparation.
4. Scheme for coal changing, charging emission centre, Coke quenching technology, pushing emission control.

5. Scheme for coke oven effluent treatment plant details including scheme for meeting cyanide standard.
6. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019. Provision of CDQ in case of coke oven plant of 0.8 MTPA and above.
7. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
8. Action plan for 100 % solid waste utilization shall be submitted.
9. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

Standard ToRs FOR ASBESTOS MILLING AND ASBESTOS BASED PRODUCTS[4(c)]

1. Type of fibres used (Asbestos and others) and preference of selection from techno-environment angle should be furnished
2. As asbestos is used in several products and as the level of precautions differ from milling to usage in cement products, friction products gasketing, textiles and also differ with the process used, it is necessary to give process description and reasons for the choice for selection of process
3. Technology adopted, flow chart, process description and layout marking areas of potential environment impacts
4. National standards and codes of practice in the use of asbestos particular to the industry should be furnished
5. In case of newly introduced technology, it should include the consequences of any failure of equipment/ technology and the product on environment status.
6. In case of expansion project asbestos fibre to be measured at stack emission and work zone area, besides base line air quality.
7. In case of green field project asbestos fibre to be measured in the ambient air.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
9. Action plan for 100 % solid waste utilization shall be submitted.
10. PM (PM10 and P2.5) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations in case of expansion projects (trace elements /asbestos fibre) of PM10 to be carried over.
11. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

Standard ToRs FOR IRON ORE BENEFICIATION PLANT [2 (b)]

1. Details regarding pollution control measures to be adopted in the mineral handling area, loading and unloading areas including all transfer points shall be submitted.

2. The Project proponent shall submit action plan for conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas.
3. Treatment details regarding effluent generated from the ore beneficiation plant and the mode of transportation of tailing slurry shall be submitted.
4. Separate chapter on slime management shall be submitted.
5. Action plan for regular monitoring of ground water level and quality in and around the project area of beneficiation plant and tailing/slime pond shall be submitted by establishing a network of existing wells and constructing new piezometers.
6. Details regarding lining of the tailing/slime pond to be provided shall be submitted in order to ensure that there is no leaching from the tailing/slime pond.
7. Details regarding establishment of garland drain around the tailing/slime pond and the quantity of decanted water to be re-circulated from the tailing/slime pond shall be submitted along with complete water balance.
8. Technology to be adopted for maximum recovery of ore in order to reduce slurry discharge and to increase the life of the tailing/slime pond shall be submitted.
9. Action plan for 100 % solid waste utilization shall be submitted.
10. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

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Executive Summary

Executive summary of the report in about 8/10 pages incorporating the following:

i. Project name and location (Village, Dist, State, Industrial Estate (if applicable)
ii. Products and capacities. If expansion proposal, then existing products with capacities and reference to earlier EC.
iii. Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
iv. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes. Materials balance shall be presented.
v. Measures for mitigating the impact on the environment and mode of discharge or disposal.
vi. Capital cost of the project, estimated time of completion
vii. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of is acquisition, nearby (in 2/3 km.) water body, population, with in 10km other industries, forest, eco/sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)
viii. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio/economic condition of the nearby population
ix. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
x. Likely impact of the project on air, water, land, flora/fauna and nearby population
xi. Emergency preparedness plan in case of natural or in plant emergencies
xii. Issues raised during public hearing (if applicable) and response given
xiii. CSR plan with proposed expenditure.
xiv. Occupational Health Measures
xv. Post project monitoring plan

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ANNEXURE-3

List of the Expert Appraisal Committee (Industry-1) members participated during VC meeting

S. No.	Name	Position	14.02.2023	15.02.2023
1.	Shri Rajive Kumar	Chairman	***Present***	***Present***
2.	Dr. Dipankar Shome	Vice Chairman	***Present***	***Present***
3.	Dr. S. Ranganathan	Member	***Present***	***Present***
4.	Dr. Ranjit Prasad	Member	***Present***	***Present***
5.	Dr. S. K. Singh	Member	***Present***	***Present***
6.	Dr. Tejaswini Ananthkumar	Member	***Present***	***Present***
7.	Dr. Hemant Sahasrabuddhe	Member	***Present***	***Present***
8.	Dr. Jai Krishna Pandey	Member	***Present***	***Present***
9.	Dr. E V R Raju	Member	***Present***	***Present***
10.	Dr. B. N. Mohapatra, DG, (Representatives of NCCBM)	Member	***Absent***	***Present***
11.	Shri Nazimuddin, Scientist 'F' (Representative of CPCB)	Member	***Present***	***Present***
12.	Dr. S. Raghavan, Scientist 'D' (Representative of National Institute of Occupational Health (NIOH)	Member	***Present***	***Present***
13.	Dr. Sanjay Bist, Scientist 'E' (Representative of Indian Meteorological Department)	Member	***Present***	***Present***
14.	Dr. R.B. Lal, Scientist F, MoEFCC	Member Secretary	***Present***	***Present***
MoEFCC				
15.	Dr R P Rastogi	Scientist C	***Present***	***Present***
16.	Dr Sandeepan BS	Scientist B	***Present***	***Present***

ANNEXURE-4

Approval of EAC Chairman

Email **Additional Director MoEFCC Dr R B LAL**

Re: Compiled Draft minutes of the 23rd EAC Meeting held on February 14-15, 2023 for approval of the Chairman

From : chairman eac ind 1 <chairman.eac.ind.1@gmail.com> Fri, Feb 24, 2023 02:39 PM

Subject : Re: Compiled Draft minutes of the 23rd EAC Meeting held on February 14-15, 2023 for approval of the Chairman

To : Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>

Cc : rajivekumar1983@gmail.com, ranganathan metals <ranganathan.metals@gmail.com>, ranjitnitj@gmail.com, rajuevr60@gmail.com, sksinghdce@gmail.com, dshome61@gmail.com, tejaswini acf <tejaswini.acf@gmail.com>, sshemant 801 <sshemant_801@rediffmail.com>, NCCBM DIRECTOR GENERAL <dg@ncbindia.com>, Nazimuddin <nazim.cpcb@nic.in>, Raghavan S <raghuharihar@gov.in>, raghuharihar@yahoo.co.in, Sanjay Bist <sanjay.bist@imd.gov.in>, drjkpandey eac industry1 <drjkpandey.eac.industry1@gmail.com>

Dear Dr. Lal,
The minutes are approved. Kindly do the needful.

Best Wishes

Rajive Kumar
Chairman-EAC_Industry-1

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