

**Ministry of Environment, Forest and Climate Change**  
**Impact Assessment Division**  
**(Industry-1 Sector)**

**Summary record of the thirty second (32<sup>nd</sup> meeting of Re-Constituted Expert Appraisal Committee (REAC) held on 15<sup>th</sup>-17<sup>th</sup> March, 2021 for environment appraisal of Industry-1 sector projects constituted under the provisions of Environment Impact Assessment (EIA) notification, 2006.**

The thirty second meeting of the Expert Appraisal Committee (EAC) for Industry-1 Sector constituted as per the provisions of the EIA Notification, 2006 for Environment Appraisal of Industry 1 Sector Projects was held on **15<sup>th</sup>-17<sup>th</sup> March, 2021** in the Ministry of Environment, Forest and Climate Change (MoEF&CC) through **video conferencing** in view of the ongoing Corona Virus Disease (Covid-19) issue. The list of EAC attendees is as follows.

S. No.	Name	Position	15/03/2021	16/03/2021	17/03/2021
1.	Dr. Chhavinath Pandey	Chairman	Present	Present	Present
2.	Dr. Shivaker Mishra, Sc. E-II, CPPRI.	Member	Present	Present	Absent
3.	Dr. Siddharth Singh, Scientist 'E' IMD.	Member	Present	Present	Absent
4.	Dr. Jagdish Kishwan	Member	Present	Present	Present
5.	Dr. G.V. Subramanyam	Member	Present	Present	Present
6.	Dr. Tejaswini Ananth Kumar	Member	Present	Present	Absent
7.	Shri. Ashok Upadhyaya	Member	Present	Present	Present
8.	Shri. Rajendra Prasad Sharma	Member	Present	Present	Present
9.	Dr. Sanjay Deshmukh	Member	Absent	Absent	Absent
10.	Prof. S.K. Singh	Member	Present	Present	Present
11.	Dr. R. Gopichandran	Member	Absent	Absent	Absent
12.	Shri Jagannadha Rao Avasarala	Member	Present	Present	Present
13.	Shri. J.S.Kamyotra	Member	Present	Present	Present
14.	Shri. Sundar Ramanathan	Member Secretary	Present	Present	Present
15.	Dr.Mahendra Phulwaria	Scientist 'C'	Present	Present	Present

After welcoming the Committee Members, discussion on each of the agenda items was taken up. The minutes of 31<sup>st</sup> meeting held during 25<sup>th</sup> – 26<sup>th</sup> February, 2021 were confirmed by the EAC as already uploaded on PARIVESH.

**15<sup>th</sup> March, 2021**

32.1 Expansion and modernization of 1.2 MTPA Iron ore crushing, screening plant to 1.50 MTPA Iron ore Crushing, Screening and 1.50 MTPA Beneficiation plant by **M/s. Godavari Natural Resources Private Limited** located at Village-Gidhali, Tehsil: Dondi, **Dist. Balod, Chhattisgarh**. [Online Proposal No. IA/CG/IND/197113/2020; File No. J-11011/48/2020-IA.II (I)] – **Environment Clearance** – regarding.

32.1.1 M/s Godavari Natural Resources Pvt. Ltd. has made an online application vide proposal no. IA/CG/IND/197113/2020 dated 20/02/2021 along with copy of EIA/EMP report and Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 2(b) Mineral beneficiation under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

**Details submitted by Project proponent**

32.1.2 The details of the ToR are furnished as below:

<b>Date of application</b>	<b>Consideration</b>	<b>Details</b>	<b>Date of accord</b>
05/02/2020	16 <sup>th</sup> meeting held on 25 <sup>th</sup> February 2020	Terms of Reference	06/04/2020
19/08/2020	23 <sup>rd</sup> meeting held on 28 <sup>th</sup> – 30 <sup>th</sup> September 2020.	Amendment in ToR	04/11/2020
31/10/2020	-	Name change	11/11/2020

32.1.3 The project of M/s Godavari Natural Resources Pvt. Ltd. Located in Gidhali Village, Dondi Tehsil, Balod District, Chhattisgarh State is for setting up of Capacity enhancement of production of Iron ore Crushing, Screening from 1.2 MTPA to 1.5 MTPA and Establishment of 1.5 MTPA Iron Ore Beneficiation Plant.

32.1.4 Environmental Site Settings

<b>S. No.</b>	<b>Particulars</b>	<b>Details</b>		
i.	Total land	27.53 ha [Private Land] Land use: Industrial		
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Entire land of 27.53 ha is under the possession of M/s Godavari Natural Resources Private Limited		
iii.	Existence of habitation & involvement of R&R, if any.	Nil		
iv.	Latitude and Longitude of the project site	Points	Latitude	Longitude
		A.	20°41'4.38"N	81°4'42.64"E
		B.	20°41'3.95"N	81°4'45.67"E
		C.	20°41'7.78"N	81°4'46.25"E

S. No.	Particulars	Details		
		D.	20°41'6.91"N	81°4'50.19"E
		E.	20°41'9.45"N	81° 5'7.66"E
		F.	20°41'15.83"N	81°5'9.72"E
		G.	20°41'23.59"N	81°5'1.31"E
		H.	20°41'25.48"N	81°4'58.11"E
		I.	20°41'21.48"N	81°4'31.52"E
		J.	20°41'20.48"N	81°4'31.59"E
v.	Elevation of the project site	380 AMSL		
vi.	Involvement of Forest land if any.	Nil		
vii.	Water body exists within the project site as well as study area	<p><b>Project site:</b> A small water body present close to boundary in North direction.</p> <p><b>Study area:</b></p> <p>i) Keshala Nallah at 0.10 km in West                      ii) Gondli reservoir at 2.7 km in NNE                      iii) Tandula Reservoir at 7.0 km East</p>		
viii.	Existence of ESZ/ ESA/ national park / wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil		

32.1.5 The existing project was accorded Consent to Operate vide Letter.no. 2152 & 2154 dated 31/03/2008. Existing unit is only for Crushing & screening of iron ore, which does not attract provisions of EIA Notification 1994 & 2006. Consent to Operate for the existing unit was accorded by Chhattisgarh Environment Conservation Board vide Letter. no. 306/TS/CECB/2019 dated 12/04/2019. The validity of CTO is up to 13/06/2024.

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

S. No.	Name	Existing Units		Proposed Units		Total (Existing + Proposed)	
		Configuration	Production TPA	Configuration	Production TPA	Configuration	Production TPA
1.	Iron Ore crushing, Screening	1 x 1.2 MTPA	1,200,000 TPA	--	3,00,000 TPA	1 x 1.5 MTPA	1,500,000 TPA
2.	Iron Ore Beneficiation Plant	--	--	1 x 1.5 MTPA	1,500,000 TPA	1 x 1.5 MTPA	1,500,000 TPA

32.1.7 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:

Sl. No.	Raw Material	Quantity required per annum			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Expansion	Total			
1.	Iron Ore Lumps & Fines	1200000	300000	1500000	Material from nearby mines of BSP JNIL IGL etc	25 to 120 KM	In Tarpaulin covered Truck/ Tipper/ Dumper by road.
2.	Crushed Low grade Iron Ore	-	1500000	1500000	From Crushing & screening units	Within plant	Closed Conveyor Belt

32.1.8 The water requirement for the project is estimated as 370 m<sup>3</sup> /day, which will be obtained from the Ground water. The permission for drawl of groundwater is obtained from CGWA vide Letter. No. CGWA/NOC/IND/ORIG/2021/9873 dated 30/12/2020. Application for withdrawal of 370 m<sup>3</sup>/day surface water from Keshala nallah has been submitted to WRD, Chhattisgarh. Once the permission is granted, ground water will be used only for domestic use (i.e. 5 m<sup>3</sup>/day).

32.1.9 The power requirement for the project is estimated as 2 MW which will be obtained from the Chhattisgarh State Power Distribution Company limited.

32.1.10 Baseline Environmental Studies:

<b>Period:</b>	Summer Season: From 26/02/2020 to 13/06/2020* Additional One Month during Post monsoon 2020 (October 2020)**
<b>AAQ parameters at 08 locations</b>	PM <sub>2.5</sub> = 19 to 46 µg/m <sup>3</sup> PM <sub>10</sub> = 58 to 80 µg/m <sup>3</sup> SO <sub>2</sub> = 4 to 18 µg/m <sup>3</sup> NO <sub>x</sub> = 11 to 32 µg/m <sup>3</sup>
<b>AAQ modelling</b>	<u>Incremental GLCs in study area for:</u> PM <sub>10</sub> = 0.5 µg/m <sup>3</sup> SO <sub>2</sub> = 0.03 µg/m <sup>3</sup> NO <sub>x</sub> = 0.2 µg/m <sup>3</sup>
*Environmental Baseline monitoring for the project was conducted from 26 <sup>th</sup> February 2020 and continued till 21 <sup>st</sup> March 2020. The monitoring was discontinued from 22 <sup>nd</sup> March 2020 to 20 <sup>th</sup> April 2020 due to the lockdown imposed by Government of India. Nationwide lockdown was ordered for 21 days, as a preventive measure against the COVID-19 pandemic in India. After the relaxation in lockdown, the monitoring was again initiated from 21 <sup>st</sup> April 2020 and continued till 13 <sup>th</sup> June 2020.	
<b>Ground water quality at 08 locations</b>	pH: 6.75 to 7.45, Total Hardness: 72 to 846 mg/l, Chlorides: 29.9 to 79.9 mg/l, Fluoride: 0.02 to 0.8mg/l.

	Heavy metals are within the limits.
<b>Surface water quality at 09 locations</b>	pH: 6.75 to 7.30; DO: 4.6 to 6.2 mg/l and BOD: 2.2 to 6.3 mg/l.
<b>Noise levels</b>	40.0 to 53.0 dB(A) for the day time and 39.1 to 39.9 dB(A) for Night time.
<b>Traffic assessment study findings</b>	<ul style="list-style-type: none"> <li>• Design capacity of SH 5 : 28800 PCUs/day</li> <li>• Present traffic load on NH23/NH-32: 8827 PCUs/day.</li> <li>• Additional traffic load due to proposed project: 1236 PCUs/day.</li> <li>• Total traffic load in future due to project: 10063 PCUs/hr (which is still within the Carrying capacity of SH 5 of 28800 PCUs/day)</li> </ul>
<b>Flora and fauna</b>	No schedule-1 fauna exists in the study area.
<i>**4 weeks (1<sup>st</sup> October to 31<sup>st</sup> October 2020) addition data was collected as recommended by EAC, Industry I in ToR amendment letter accord 04/11/2020.</i>	

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

<b>S. No.</b>	<b>Type of Waste</b>	<b>Source</b>	<b>Quantity generated (TPA)</b>	<b>Mode of Treatment / Disposal</b>
1.	Solid Waste: Tailings	Beneficiation plant	225000 TPA	<p>The tailing generated will be taken back by those companies who will beneficiate their low grade Iron ore.</p> <p>A temporary provision will be made in the plant for storage of dry tailing (in Cake form) in 2-hectare area.</p> <p>The company also plans to support the local Self-help groups to install a brick manufacturing unit using tailings. Necessary technical support will be provided by the company for establishment of the brick manufacturing unit. Company will utilize these bricks in its CSR activities and also, would encourage the local civil contractors for use of these bricks in civil works.</p>

S. No.	Type of Waste	Source	Quantity generated (TPA)	Mode of Treatment / Disposal
2.	Hazardous Waste: spent oil, grease, damaged batteries, etc.	Crushing, Screening & Beneficiation Plant	--	Temporary storage in separate room and disposal through authorized recycling vendors.

32.1.12 Public Consultation:

<b>Details of Advertisement given</b>	30/11/2020
<b>Date of Public Consultation</b>	02/01/2021
<b>Venue</b>	Panchayat Bhawan, Village Gidhali
<b>Presiding Officer</b>	Additional District Magistrate
<b>Major Issues Raised</b>	(i) Garland drains and settling tanks in plant premises (ii) Desiltation of Keshala Nallah (iii) Damage assessment of agriculture fields (iv) Organic fertilizer (v) Employment to local people & skill development training program (vi) Development and maintenance of Drinking water facilities. (vii) Solar street light (viii) Support education facility (ix) Health checkup camps

Public Consultation Point-wise Action plan as per MoEF&CC O.M. dated 30/9/2020

S.No	Concerns raised during the Public Hearing	Physical activity and action plan	Tentative Budget, Rs Lacs	Target date for implementation of action plan
1.	Water pollution, damage to agriculture fields, employment, village infrastructure, education, health	Appropriate action plan prepared as per the concerns raised.	29.5 Lacs	Within Two years

32.1.13 The capital cost of the project is Rs 25.50 Crores and the capital cost for environmental protection measures is proposed as Rs 2.07 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 0.46 Crores. The employment generation from the proposed project / expansion is 80 persons. The details of cost for environmental protection measures is as follows:

S No	Description	Capital Cost (in Cr.)	Recur. Cost/ annum (In Cr.)
1.	Air Pollution Control Systems	0.75	0.07
2.	Water Conservation & Pollution Control	0.35	0.06
3.	Noise & Vibration control System	0.00	0.01
4.	Solid Waste Management System	0.15	0.05
5.	Baseline monitoring system	0.02	0.10
6.	Plantation/ Green belt development	0.15	0.03
7.	Occupational Health	0.10	0.0275
8.	Miscellaneous	0.25	0.035
<b>Total Cost for Environmental Protection Measures</b>		<b>2.07</b>	<b>0.4575</b>
	Cost of addressing focus areas identified in Public consultation	<b>0.295</b>	

32.1.14 Greenbelt will be developed in 9.085 ha which is about 33% of the total project area. A 5.0m 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 1500 trees per hectare. Total no. of 13628 saplings will be planted and nurtured in 9.085 hectares in 5 years.

32.1.15 The proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

32.1.16 Name of the EIA consultant: M/s Srushti Seva Pvt. Ltd. [S.No. 85, List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021].

#### **Certified compliance report from Regional Office**

32.1.17 The Status of compliance of earlier CTO was obtained from Regional Office, CECB *vide* letter no. 3354/RO/CECB/Bhilai/2019 dated 20/12/2019. As per the report submitted, the project proponent has complied with the conditions of CTO.

32.1.18 The proposal was considered by the EAC (Industry 1) in its 32<sup>nd</sup> meeting of the Re-constituted EAC (Industry-I) held on 15<sup>th</sup> – 17<sup>th</sup> March, 2021. The observations and recommendations of EAC is given as below:

#### **Observations of the Committee**

32.1.19 The Committee noted the following:

- i. 1.36 ha forest land which has been excluded from the project area shall be indicated in the plant lay out. Further, the space earmarked towards parking of vehicles shall also be indicated.
- ii. 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.

- iii. TOR point number 9 pertaining to Corporate Environment Policy has not been complied with.
- iv. Photographs of plant indicate that all roads inside the plant are kutcha and dusty. Scheme to make pave the roads shall be submitted.
- v. Base line Data in Chapter 3 of EIA Report have not been interpreted for land use, socio-economic and bio diversity.
- vi. Impacts identified in chapter 4 are generic and no quantification has been done. Entire chapter 4 looks like a text book except traffic impact and AAQ modelling. Summary matrix table 4.9 does not indicate any quantification.
- vii. It is proposed to stack the tailings inside the plant premises and no limit for storage period has been specified. Further, it is indicated that the tailings will be used for brick manufacturing. No details have been furnished in this regard.
- viii. Chapter 11 – Summary and conclusion of EIA report has not been presented as per the requirement of Appendix III of EIA notification 2006.
- ix. The project proponent confirmed that surface water will be used for project by developing Anicut on Keshala Nallah, but no action plan is submitted to develop the anicut as well as water quantification of Keshala Nallah.
- x. The project area is in two part separated by kachha Village road, the PP has not submitted any proposed plan to connect both portions of the project area.
- xi. Mitigation measures proposed in chapter 4 of EIA report are generic. Project specific information needs to be provided.
- xii. Action plan is not given with physical targets to address the Public Hearing issues as per MoEF&CC Office memorandum dated 30/09/2020.
- xiii. PP confirmed that, the Pits which are available in the project site will be utilized as water reservoir; the details are not given in EIA report.

### **Recommendations of the Committee**

- 32.1.20 In view of the aforesaid observations, the Committee after deliberations, recommended to return the proposal in its present form for addressing the shortcomings as listed above.
- 32.2 Proposed 6 MTPA Integrated Steel Plant along with captive power generation of 893 MW by **M/s. Uttam Galva Ferrous Limited** at villages Kuduthini, Veniveerapura, Yerangaligi and Kolagallu, Taluka & **District: Bellary, Karnataka** [Online Proposal No. IA/KA/IND/22038/2014; File No. J-11011/80/2014-IA.II(I)] – **Environment Clearance** – regarding.



32.2.1 M/s. Uttam Galva Ferrous Limited has made an online application vide proposal no. IA/KA/IND/22038/2014 dated 25/02/2021 along with copy of EIA/EMP report and Form-2 seeking Environmental Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3 (a) Metallurgical industries (Ferrous & non-ferrous), 2 (b) Minerals Beneficiation, 4 (b) Coke Oven & 1(d) Thermal power plants under Category “A” of the schedule of the EIA notification, 2006 and appraised at Central level.

**Details submitted by Project proponent**

32.2.2 The details of the ToR are furnished as below:

<b>Date of Application</b>	<b>Consideration</b>	<b>Details</b>	<b>Date of Accord</b>
07/05/2014	19 <sup>th</sup> Reconstituted EAC meeting held on 28/05/2014	Terms of Reference	17/07/2014

32.2.3 The project of M/s. Uttam Galva Ferrous Limited located in Village Kuduthini, Veniveerapura, Yerangaligi and Kolagallu, Tehsil Bellary, District Bellary, State Karnataka is setting up of a new 6 MTPA Integrated Steel Plant with captive power generation of 500 MW.

32.2.4 Environmental Site Settings

<b>S. No.</b>	<b>Particulars</b>	<b>Details</b>		
i.	Total land	2015.4 ha (Private land) Agriculture land: 200 ha Grazing land: 123 ha Barren land: 1692.4 ha		
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	The land is acquired by KIADB and handed over to UGFL.		
iii.	Existence of habitation & involvement of R&R, if any.	Nil		
iv.	Latitude and Longitude of the project site	<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>
		1	15° 11'04.61" N	76° 49'29.66" E
		2	15° 11'39.04" N	76° 50'46.06" E
		3	15° 14'06.37" N	76° 46'33.65" E
		4	15° 13'24.88" N	76° 46'18.38" E
v.	Elevation of the project site	460-475 m Above Means Sea Level (AMSL)		
vi.	Involvement of Forest land if any.	No		
vii.	Water body exists within the project site as well as study area	Project site: Yes Three streams (Urumandra nalla) are crossing the site which will be strengthened by providing 25m buffer on either side of the streams.		

S. No.	Particulars	Details
		Study area: Tungbhadra High Level Canal (Adjacent to project boundary in North and NE direction) Allipura Reservoir (South; 3.0 km) Daroji Reservoir (West; 9.4 km)
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil

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

Sl. No.	Name of unit	No. of units	Capacity of each Unit	Sanctioned Capacity as per ToR dated 17/07/2014	Revised capacity
1.	<b>Coke oven and By-product plant</b>	2 Nos.	2x 67 ovens 7m Tall	<b>2.74 MTPA</b>	<b>3.53 MTPA</b>
2.	Beneficiation plant	1 Nos.	4 MTPA	4.00 MTPA	2 MTPA
3.	Pellet plant	1 Nos	4 MTPA	4.00 MTPA	
4.	Sinter plant	2 Nos.	1 X 460 m <sup>2</sup>	<b>8.532MTPA</b>	<b>9.89 MTPA</b>
5.	Blast Furnace	2 Nos.	1 X 4200 m <sup>3</sup>	6.464 MTPA	6.464 MTPA
6.	Basic Oxygen Furnace (BOF)	2 Nos.	3.00 MTPA	6.0 MTPA	6.0 MTPA
7.	<b>Continuous Casting Machine (CCM)</b>	2 Nos.	2.940 MTPA	<b>5.88 MTPA</b>	<b>6.0 MTPA</b>
8.	Rolling Mill ( RM)	2 Nos.	2.809 MTPA	<b>5.615 MTPA</b>	<b>5.63 MTPA</b>
9.	Captive Power Plant*	2 Nos.	1 x 400 MW 1x200 MW	600 MW	556 MW
10.	Additional Power* (CDQ/TRT/WHB/G BPP)	GBPP: 8 MW & 17 MW, WHB: 2X16 MW, TRT: 2X24 MW,	Total: 293 MW	293 MW	

Sl. No.	Name of unit	No. of units	Capacity of each Unit	Sanctioned Capacity as per ToR dated 17/07/2014	Revised capacity
		CDQ: 2X28 MW.			
11	Oxygen Plant	2 Nos.	-	4000 TPD	4000 TPD
12	<b>Lime Plant</b>	2 Nos.	--	<b>0.524 MTPA</b>	<b>0.594 MTPA</b>
13	<b>Dolo Plant</b>	2 Nos.	--	<b>0.150 MTPA</b>	<b>0.165 MTPA</b>

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

Raw material	Phase I	Phase II	Total	Source
Iron ore for SMS	36000	36000	72,000	Iron ore mines in Karnataka and Goa
Ore fines				
For sinter plant	4927776	4927776	9855552	Indigenous
For beneficiation	2952000	Nil	2952000	Indigenous
Prime and semi coking coal	2581587	2581587	5163174	Coking coal will be imported from Australia/USA. Non coking coal will be imported from Australia and Canada
Coal for PCI	650000	650000	1300000	Australia/Indonesia/Canada
Coal for CPP (Full power generation)	2000000	2000000	4000000	Indigenous/Indonesia
Anthracite/Coke breeze for SP	291847	291847	583694	Will be imported from Vietnam and/or South Africa
Lime stone				High grade low silica limestone will be imported from Japan, Thailand, Vietnam, middle east and low grade lime stone from Indigenous.
For BF	74796	74796	149592	Indigenous
For SP	334245	334245	668490	Indigenous

Raw material	Phase I	Phase II	Total	Source
For SMS	156000	156000	312000	Imported
For pellet plant	50000	Nil	50000	Indigenous
Dolomite				Indigenous source Bhutan is considered as supplementary source.
For SP	231400	231400	462800	Indigenous
For SMS	66000	66000	132000	Imported
Quartzite for BF	17,000	17,000	34,000	Indigenous
Sand for SP	70,000	70,000	1,40,500	Indigenous
Bentonite for PP	16000	Nil	16000	Indigenous

32.2.7 The water requirement for the project is estimated to be about 145080 m<sup>3</sup>/day out of which 7056 m<sup>3</sup>/day of fresh water requirement will be obtained from the rain water harvesting and the remaining requirement of 138024 m<sup>3</sup>/day will be met from the surface water from river Tungabhadra. Government of Karnataka (GoK) has granted permission to draw 4 TMC (12930 m<sup>3</sup>/hr) of surface water from downstream of river Tungabhadra, vide their letter no. 2013-14/751 dated 23/12/2013.

32.2.8 The power requirement of the project is estimated as 650 MW. The captive power plant generation is about 500 MW and additional power generation will be about 56 MW. In case of power evacuation/drawing will be from KPTCL substation 400kV/220kV grid near Kudatini which is about 5 km from the project site.

32.2.9 Baseline Environmental Studies:

Period	Winter Season 2014-15 (December, 2014 to February, 2015)
AAQ parameters at 8 locations	PM <sub>2.5</sub> = 16.59 to 42.84 µg/m <sup>3</sup> PM <sub>10</sub> = 33.12 to 73.81 µg/m <sup>3</sup> SO <sub>2</sub> = 1.68 to 11.49 µg/m <sup>3</sup> NO <sub>2</sub> = 3.29 to 26.12 µg/m <sup>3</sup>
AAQ modelling (Incremental GLCs)	PM <sub>10</sub> = 9.16 µg/m <sup>3</sup> SO <sub>2</sub> = 22.51 µg/m <sup>3</sup> NO <sub>x</sub> = 21.86 µg/m <sup>3</sup> PM <sub>2.5</sub> = 5.93 µg/m <sup>3</sup>
Ground water quality at 8 locations	pH: 7.45 to 7.98, Total Hardness: 480 to 925 mg/l, Chlorides: 57 to 233 mg/l, Fluoride: 0.48 to 0.91 mg/l. Heavy metals are within the limits.
Surface water quality at 8 locations	pH: 7.13 to 8.06; DO: 5.3 to 6.7 mg/l and BOD: 2 to 2.8 mg/l; total coliform: 84 to 278 MPN/100 ml
Noise levels	51.5 to 72.3 dB(A) for the day time and 50.3 to 69.2 dB(A) for the Night time.
Traffic assessment study findings	Traffic study conducted on Kudatini – Siddamanahalli Road. The observed traffic is moderate since, the proposed plant area is green field area and there is no traffic pertaining to the proposed plant.
Flora and fauna	Schedule I fauna (Indian Peafowl) present in Study Area. No Wildlife Conservation Plan has been prepared by the proponent.

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

Sl. No.	Unit	Nature of solid waste	Quantity at 3 MTPA (tpy)	Quantity at 6 MTPA (tpy)	Probable reuse
1	<b>Beneficiation plant</b>	Tailing	849,600	849,600	For land fill
2	<b>Blast furnace</b>				
		Dust from waste gas and DE systems			Feed for SP
		BF slag	1455300	2910600	Sold to cement plant
3	<b>Sinter plant</b>				
	Sinter BF return	Sinter			Sinter plant
4	<b>Steel melting shop</b>				
		BoF Slag	450,000	900,000	SP, and road making and land fill 70 kg/tonne of crude steel will be used for sinter cooling
		BoF sludge	42,000	84,000	Sintering plant feed
		dolo and fines	12,375	24,750	Sinter feed
5	<b>Continuous casting machine</b>				
		Mill scales			Sintering plant
		Refractory's debris			Clay making for BF
		-			
6	<b>Rolling mills</b>				
	Scrap	Scrap	65,400	213,100	Within the steel plant-DRI
	Scale and muck	Scale			Sintering plant
	Oil and grease traps	Oil and grease			To be sold to authorized vendor
	Reheat furnace	Broken refractory's	-	(Lump sum	During revamping of Reheating furnace once in 10 years

Sl. No.	Unit	Nature of solid waste	Quantity at 3 MTPA (tpy)	Quantity at 6 MTPA (tpy)	Probable reuse
				300 t)	for landfilling.
7	<b>Coke oven plant</b>				
	Coke breeze	Dust			Coke oven
	Dust from bag filters	Dust			Power plant/coke oven
8	<b>Captive power plant</b>				
	Fly ash	Dust	261280	522560	Cement and brick manufacturing
	Bottom ash		16330	32660	Ash pond

32.2.11 Public Consultation:

<b>Details of Advertisement given</b>	01/07/2016
<b>Date of Public Consultation</b>	04/08/2016
<b>Venue</b>	Shri. Kampli Allum Thimmappa Kalyana Mandapa, Kudatini, Bellary Taluk & District
<b>Presiding Officer</b>	Additional Deputy Commissioner, Bellary
<b>Major Issues Raised</b>	(i) Industrial air pollution and dust problem (ii) Discrepancy of land compensation (iii) Job/employment opportunities for locals

**Action plan as per MoEF&CC O.M. dated 30/9/2020 – Not furnished.**

32.2.12 The capital cost of the project is Rs. 36,000 Crores and the capital cost for environmental protection measures is proposed as Rs. 5625 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 563 Crores. The employment generation from the proposed project is about 6427. The details of cost for environmental protection measures is as follows:

Item	Capital cost (Rs. In Crores)	Recurring cost per annum (Rs. In Crores)
<b>Environmental pollution control</b>		
Air pollution control including CDQ for coke oven	1500	150
Dust separation system (dry fog for raw material handling, sinter plant, junction towers)	650	65
Primary and secondary de-	1490	149

Item	Capital cost (Rs. In Crores)	Recurring cost per annum (Rs. In Crores)
dusting system at coke oven, BF, SMS and calcination plant		
Water pollution control (ETP-Coke oven and STP)	600	60
Fume extraction at rolling mill complex	200	20
Solid waste management includes tailing disposal, ash pond etc.	630	63
Noise pollution	20	2
Occupational health	50	5
<b>Environmental and pollution monitoring</b>		
Environmental survey and sampling	25	3
Green belt development	100	10
Rainwater harvesting	150	15
Continuous monitoring	30	3
CER fund for PH issues	180	18
<b>Total</b>	<b>5625</b>	<b>563</b>

- 32.2.13 Greenbelt will be developed in 664 ha which is about 33% of the total acquired area. A 20m 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. Since it is a green field project saplings are yet to be started. About 16.6 lakhs saplings will be planned in an area of 664 ha.
- 32.2.14 The proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration
- 32.2.15 Name of the EIA consultant: M/s MECON Limited [S.No. 49, List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021].

#### **Observations of the Committee**

32.2.16 The Committee noted the following:

i. Brief Chronology of the proposal

ToR issued	:	17 <sup>th</sup> July, 2014
Baseline date	:	December, 2014 to February, 2015
Public Hearing	:	04 <sup>th</sup> August, 2016
EC Application date	:	20 <sup>th</sup> June, 2017
EAC Meeting dates	:	6-7 March & 3-5 May, 2017 (PP did not attend admittedly due to financial crisis)
EAC Meeting	:	10-12 December, 2018 (EAC rejected the proposal)

- ii. EAC in its meeting dated 10-12 December, 2018 opined that the validity of ToR and baseline data has been expired and advised the PP to obtain fresh 'ToR' as per the provisions laid down in the EIA Notification, 2006. Subsequently, the PP submitted several representations to the Ministry requesting to revisit the matter. In this regard, personal hearing in the Ministry on 15/04/2020 wherein Ministry has issued a letter to the PP that to submit the EIA report based on the secondary data collected through authentic resources.
- iii. In pursuance to the MoEF&CC letter, M/s. Uttam Galva Ferrous Limited has made an online application vide proposal no. IA/KA/IND/180641/2014 dated 27/10/2020 along with Form 1 &2, and feasibility report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposal was earlier considered during the 25<sup>th</sup> meeting of the Re-constituted EAC (Industry-I) held during 25-27<sup>th</sup> November, 2020 wherein the project proponent did not attend the meeting.
- iv. The proposal was placed before the EAC in its meeting held on 16-17<sup>th</sup> December, 2020 wherein EAC recommended to return the proposal in present form as the AAQ data as desired by MOEF&CC have not been validated. EAC advised the PP to collect one-month data from same locations as that of 2014-15 monitoring and submit the revised EIA report by end of Feb 2021.
- v. Accordingly, PP submitted the report to the Ministry on 25/02/2021. EIA has been prepared for plant capacities which are different from ToR issued in 2014 (Coke Oven - 2.74 to 3.53 MTPA; IOBP -4.0 to 2 MTPA and Sinter Plant- 8.532 to 9.89 MTPA etc.,).
- vi. AAQ data have been monitored for revalidation in Jan 2021. Air quality modelling has been done based on one-month data collected in Jan 2021 which is not representative.
- vii. Impact on nearest village due to increased pollution load has not been indicated. Village is very near and down wind and shall be severely affected by plant pollution.
- viii. Species selected for plantation are ornamental. Hardy and local species have not been suggested. Wildlife conservation plan for the schedule I fauna (Peafowl) as reported at chapter 3, page number 163 have not been prepared and submitted to the Competent Authority for approval.
- ix. Targets for specific consumption of resources and pollution indicators have not been furnished.
- x. RWH proposed is only 5 % of the fresh water consumption which is grossly inadequate. PP has not made adequate provision for RWH.
- xi. Action plan to address the issues raised during public hearing as per MoEF&CC O.M. dated 30/09/2020 has not been submitted.
- xii. The Comparison of baseline data collected during 2014-15 and Jan, 2021 is furnished as below:



Parameters monitored	Range of measured pollutants in Dec. 2014 to Feb. 2015	Range of measured pollutants in Jan. 2021
Air - (8 locations)	PM <sub>10</sub> : 33.12 to 73.81 µg/m <sup>3</sup> PM <sub>2.5</sub> : 16.59 to 42.84 µg/m <sup>3</sup> SO <sub>x</sub> : 1.68 to 11.49 µg/m <sup>3</sup> NO <sub>x</sub> : 3.29 to 26.12 µg/m <sup>3</sup>	PM <sub>10</sub> : 50.83 to 84.73 µg/m <sup>3</sup> PM <sub>2.5</sub> : 26.05 to 52.11 µg/m <sup>3</sup> SO <sub>x</sub> : 4.35 to 28.02 µg/m <sup>3</sup> NO <sub>x</sub> : 6.22 to 43.89µg/m <sup>3</sup>

### Recommendations of the Committee

- i. It is inferred from the observations that the project proponent has changed the unit configurations as well as production capacities of coke oven, sinter plant and pellet plant etc., for which ToR was accorded on 17/07/2014 and public hearing held on 04/08/2016.
- ii. Data collected during Jan 2021 show significant deterioration in the baseline environment and validation could not be established as desired in the EAC meeting held on 16-17th Dec, 2020. Thus, the validation process has failed.

In light of the above, the Committee after deliberations, recommended for rejection of the instant proposal under consideration and asked the project proponent to obtain a fresh ToR as per the provisions of EIA Notification, 2006.

32.3 Expansion of Cement Plant with Increase of Production of Clinker from 3.50 MTPA to 6.50 MTPA, Cement: 3.07 MTPA to 7.60 MTPA, Power: 50 MW to 75 MW (Addition of 25 MW through WHRB) by M/s. **Orient Cement Limited (OCL)** located at Devapur Village, Kasipet Mandal, **Mancherial District, Telangana**. [Online Proposal No. IA/TG/IND/200627/2007; File No. J-11011/266/2007-IA II (I)] – **Environment Clearance** – regarding.

32.3.1 M/s. Orient Cement Limited (OCL) has made an online application vide proposal no. IA/TG/IND/200627/2007 dated 01/03/2021 along with copy of EIA/EMP report and Form-2 seeking Environmental Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(b) Cement plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

### Details submitted by Project proponent

32.3.2 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord
01/03/2018	30 <sup>th</sup> meeting of EAC held on 9 <sup>th</sup> to 10 <sup>th</sup> April 2018	Terms of Reference	19/04/2018

32.3.3 The project of M/s. Orient Cement Limited (OCL) located at Devapur village, Kasipet Mandal and Mancherial District of Telangana State is for increase of Clinker production capacity from 3.50 to 6.50 MTPA by modification of existing process equipment of Unit –I,

II and III and by installation of New Unit i.e. Unit – IV (2.5 MTPA – Clinker production and 3.5 MTPA Cement production). Captive Power generation capacity will be increased from 50 MW to 75 MW by installing 25 MW WHRB PP (15 MW for Existing Units I, II & III and 10 MW for Proposed Unit IV).

#### 32.3.4 Environmental Site Settings

S. No.	Particulars	Details	Remarks
i.	Total land	Private Land 436.91Acres	-
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	425.91 Acres - owned by OCL 11 Acres (Private land of villagers) – Acquisition is under process.	-
iii.	Existence of habitation & involvement of R&R, if any.	No R & R is involved.	No habitation is located in the additional area of 11 acres and the area is free from habitation and vegetation. The area will be purchase with mutual agreement with the landowner. -
iv.	Latitude and Longitude of the project site	Latitude : 19°1'18.34"N - 19° 2'14.75" N Longitude : 79°20'27.11"E - 79°21'35.64" E	-
v.	Elevation of the project site	250 m above MSL	-
vi.	Involvement of Forest land if any.	No Forest Land Involved	-
vii.	Water body exists within the project site as well as study area	No water Bodies exists in project area  <b>Study area</b> Devapur Vagu – 2.6 km – ENE Ralla Vagu – 5.3 km – ENE Volli Vagu – 5.3 km – ENE	-
viii.	Existence of ESZ/ ESA/ national park / wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	No ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant in Study area.	-

32.3.5 The existing project was accorded environmental clearance vide Ir.no. No. J-11011/266/2007-1A-II(I) dated 6<sup>th</sup> September 2007. Consent to Operate (CTO) from Telangana State Pollution Control Board was obtained from time to time and current Consent to Operate obtained from

TSPCB vide File No. TSPCB/CFO/NZB/HO/2017-830 dated 01/06/2017 valid till 30/06/2022.

32.3.6 Implementation status of the existing EC

Sl. No.	Facilities	Units	As per EC dated 06/09/2007	Implementation Status as on 15/03/2021	Production as per CTO
1	Clinker	MTPA	3.50	3.50	3.50
2	Cement	MTPA	3.07	3.07	3.07
3	Captive Power	MW	50	50	50

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

	Before Expansion			After expansion		
	Clinker	Cement	Power (MW)	Clinker	Cement	Power (MW)
	(MTPA)			(MTPA)		
Unit –I	1.19	3.07	<b>50</b> (2 x 25 MW) (Coal based CPP)	1.25	4.10	<b>75 MW</b> (addition of 25 MW WHRB CPP) (15 MW for Units I,II & II and 10 MW for Unit IV)
Unit –II	0.92			1.10		
Unit –III	1.39			1.65		
Unit –IV	-			2.50		
<b>Total</b>	<b>3.50</b>	<b>3.07</b>		<b>6.50</b>	<b>7.60</b>	

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

Raw Material	Quantity per annum (in MTPA)			Mode of Transport
	Before Expansion	After Expansion	Sourced from	
Limestone	5.3	9.06	TSMDC Mines	Closed Conveyor
Limestone	0.022	-	TSMDC Mines	Closed Conveyor
Coal/ Petcoke	0.30 (IND) 0.18 USA	0.55 - IND 0.30 USA (OR)	SCCL, USA, ESSAR	Road / Rail
Cement plant	0.30 (IND) 0.126 (US)- Pet coke	0.51 - IND 0.21 - Pet coke		
Coal	0.35	0.35		
Power plant				
Laterite - 1	0.13	0.22	Warangal Area	Road
Laterite - 2	0.05	0.088	Warangal Area	Road
Al. Laterite	0.13	0.22	Rajahmundry	Rail
Gypsum	0.093	0.23	Gujarat / Imported	Road/Rail
Fly ash for PPC	0.55	1.7	Captive /STPP	Road

32.3.9 Water requirement of the plant will decrease from 3500 m<sup>3</sup>/day to 3250 m<sup>3</sup>/day. The reduction is due to the introduction of waste heat recovery boiler, which is receiving the waste heat from the Kilns and cooler gases, resulting in elimination of Gas Conditioning towers, which consume about 1000 m<sup>3</sup>/day. The water requirement will be met from Mine Pit and bore wells. Ground water permission obtained from Government of Telangana State vide letter no: Rc. No B/323/2018 dated 20.12.2018.

32.3.10 Present total power requirement for simultaneous running of complete plant is about 90 MW which will be met from captive Thermal Power Plant and proposed 25 MW WHRB PP (15MW for Existing Units I, II & III and 10 MW for Proposed Unit IV). Balance, if required will be met from grid.

32.3.11 Baseline Environmental Studies:

Period	Summer season – 2018 (March – May, 2018)
AAQ parameters at 9 Locations	PM <sub>2.5</sub> = 19.5 to 32.9 µg/m <sup>3</sup> PM <sub>10</sub> = 42.7 to 67.7 µg/m <sup>3</sup> SO <sub>2</sub> = 7.6 to 12.8 µg/m <sup>3</sup> NO <sub>2</sub> = 8.1 to 13.9 µg/m <sup>3</sup>
AAQ modelling (Incremental GLCs)	PM <sub>2.5</sub> = 9.5 µg/m <sup>3</sup> PM <sub>10</sub> = 19 µg/m <sup>3</sup> SO <sub>2</sub> = 3.10 µg/m <sup>3</sup> NO <sub>x</sub> = 18.8 µg/m <sup>3</sup>
Ground water quality at 08 locations	pH: 6.89 - 7.87 Total Hardness: 298 to 502 mg/l, Chlorides: 32 to 228 mg/l, Fluoride: 0.14 to 1.3 mg/l. Heavy metals are within the limits.
Surface water quality at 06 Locations	pH: 7.70 to 8.41; BOD: 2 to 3 mg/l. COD from 9 to 11 mg/l
Noise levels	50.7 to 71.8 dB (A) for the day time and 41.5 to 66.2 dB (A) for the Night time.
Traffic assessment study Findings	40 trucks/Hr (additional trucks)
Flora and fauna	15 No. of Schedule – I species are present in the study area. Conservation Plan has been approved by PCCF, Forest Department, Govt of Telangana vide letter Rc.No. 15341/2019/WL-1 dated 12.03.2020 with conservation budget of Rs 330 Lakhs to be implemented in three years.

32.3.12 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 (TPA)	Mode of Treatment /Disposal
1	Sludge drying beds	STP	27.37	Used as manure in green area

S. No.	Type of Waste	Source	Quantity Generated (TPA)	Mode of Treatment /Disposal
2	Municipal Solid waste	Residential colony	146	Burn in kiln
3	Waste oil as hazardous waste	--	170 KL per year	Sold to Authorized recycler

32.3.13 Public Consultation:

<b>Details of Advertisement given</b>	18.07.2019
<b>Date of Public Consultation</b>	20.08.2019
<b>Venue</b>	Gram Panchayat Office, Devapur Village, Mancherial Tehsil and District, Telangana.
<b>Presiding Officer</b>	Sri Y. Surender Rao, Joint Collector & Addl. District Magistrate, Mancherial District.
<b>Major Issues Raised</b>	<ul style="list-style-type: none"> <li>• Employment to the locals only.</li> <li>• Development works in villages.</li> <li>• Laying of roads, sewerage, and water supply and electricity lines in the village.</li> <li>• Ground for sports and a meeting hall for community.</li> <li>• Establish a hospital at Devapur to cater to the needs of the local residents.</li> <li>• Co-operation of the industry in the implementation of the organic. agriculture.</li> </ul>

**Action plan as per MoEF&CC O.M. dated 30/9/2020: Time frame: Three years**

S. No	Activity		1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	Total
<b>SWATCH BHARAT</b>						
1	Construction of 3 numbers of New Public toilets Blocks in 2 villages @ 15 lakhs each	<b>Physical Nos</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</b>
		@Village	Devapur	Maddimada	Devapur	
		Budget Rs Lakhs	15	15	15	<b>45</b>
2	Provision of Garbage collection vans in 2 villages @ Rs. 8 Lakhs / van	<b>Physical Nos</b>	4	-	-	<b>4</b>
		@Village	Devapur (3 nos) & Maddimada (01 nos)	-	-	-
		Budget	32	-	-	<b>32</b>

S. No	Activity		1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	Total
		Rs Lakhs				
3	Providing LED street lighting with solar panels in 2 villages @ Rs. 25,000/- each	<b>Physical Nos</b>	<b>160</b>	<b>100</b>		<b>260</b>
		@Village	Devapur (160 nos)	Maddimada (100 nos)	-	
		Budget Rs Lakhs	40	25		<b>65</b>
<b>EDUCATION AND SPORTS</b>						
2	Provision of computers to the local two schools – 20 nos. @ Rs. 30,000/- each	<b>Physical Nos</b>	20	-	-	<b>20</b>
		@Village	Devapur (10 nos) & Maddimada (10 nos)	-	-	
		Budget Rs Lakhs	6	-	-	<b>6</b>
3	Development of playground with necessary facilities in Devapur & Maddimada villages	<b>Physical Nos</b>	1	1	-	<b>2</b>
		@Village	Devapur	Maddimada	-	
		Budget Rs Lakhs	10	10	-	<b>20</b>
<b>WOMEN WELFARE</b>						
1	Women training – Tailoring and providing sewing machine – 300 persons	<b>Physical Nos</b>	100	100	100	<b>300</b>
		@Village	<b>Local Women's from 10 km radius</b>			
		Budget Rs Lakhs	10	10	10	<b>30</b>
<b>ROADS DEVELOPMENT</b>						
1	Repair of internal village roads & drainages (Avg. 2-4 km of internal roads per village @ 15 lakhs/km) – Devapur & Maddimada Villages	<b>Physical Nos</b>	4 km	4 km	4 km	12
		@Village	Devapur	Maddimada	Devapur	
		Budget Rs Lakhs	60	60	60	<b>180</b>
2	Construction of Bus Shelter in Devapur village	<b>Physical Nos</b>	3	-	-	<b>3</b>
		@Village	Devapur	-	-	
		Budget Rs Lakhs	10	-	-	<b>10</b>
<b>VILLAGE</b>						
1	Development of market yard at Devapur Gram	<b>Physical Nos</b>	-	1	-	<b>1</b>

S. No	Activity		1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	Total
	Panchayat office	@Village	-	Devapur	-	
		Budget Rs Lakhs	-	25	-	25
<b>DRINKING WATER</b>						
1	Provision of RO plants for drinking water in 2 villages @5 lakhs per RO unit	<b>Physical Nos</b>	4	4	-	8
		@Village	Devapur	Maddimada	-	
		Budget Rs Lakhs	20	20	-	40
<b>SKILL DEVELOPMENT</b>						
1	Providing skill development training to ITI & diploma passed local youth (for 10 members) per year in plants for a span of one year. Three batches of 10 each for 3 years. Monthly stipend @ Rs. 8153 / pm for 1 year to each of the trainee.	<b>Physical Nos</b>	10 students/year	10 students/year	10 students/year	30
		@Village	<b>Local Youth from 10 km radius</b>			
		Budget Rs Lakhs	10	10	10	30
<b>HEALTH CARE</b>						
1	Expansion of existing dispensary from 5 beds to 10 bedded facility with required infrastructure	<b>Physical Nos</b>	-	5 bed	-	5
		@Village	-	Devapur	-	
		Budget Rs Lakhs	-	45	-	45
<b>OTHERS</b>						
1	Plantation under "Telangana ku Haritha Haram" on the roads & land allotted by Dist. Administration. Local species Neem, cassasimea, Jamun, Awala etc – 15000 Saplings @Rs 200 per sapling	<b>Physical Nos</b>	7500saplings	7500 saplings	-	15000
		@Village	Devapur	Maddimada	-	
		Budget Rs Lakhs	15	15	-	30
<b>TOTAL BUDGET (In lakhs of rupees) – Implementation period - 3 years</b>						<b>558</b>

32.3.14 The cost of the proposed expansion is estimated to be about Rs. 2100 Crores which includes the cost of Environmental Management Plan of Rs. 5402 Lakhs (Rs. 54.02 crores) (including

Public Hearing Commitments). The employment generation from the proposed project is 3171 (Direct & Indirect). The details of cost for environmental protection measures is as follows:

Activity	Capital Cost (Rs. Lakhs)	Recurring Cost per annum (Rs. Lakhs)
Air pollution control equipment - Unit-IV	4084	94
Environment Monitoring	181	56
Effluent Treatment Plant – CPP (WHRB)	75	5
Rainwater harvesting	10	2
Greenbelt - Gap filling in the existing greenbelt area of 110 acres and additional GB in 65 acres)	164	15
Wildlife Conservation Plan	330	0
*Public Hearing Commitments	558	0
<b>Total</b>	<b>5402</b>	<b>172</b>

*Note \* Included as part of EMP budget as per MOEFCC Office Memorandum F.NO 22-65/2017-IA.III dated 30<sup>th</sup> September, 2020*

- 32.3.15 The Cement plant is presently located in an area of 425.91 Acres and after expansion the total area of the cement plant will be increased to 436.91 Acres (an additional area of 11 Acres will be required /used for expansion). The required greenbelt as per norms is 33% of the plant area. OCL has already developed greenbelt in an area of 110.00 Acres in plant premises, colony premises along the roads and other vacant areas. And now proposes to develop the greenbelt in additional area of 65.0 acres in 3 years. The total area under greenbelt after expansion will be 40%.
- 32.3.16 The proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration
- 32.3.17 Name of the EIA consultant: M/s B.S.Envi Tech Pvt.Ltd [S.No. 136, List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021].

#### **Certified compliance report from Regional Office**

- 32.3.18 OCL has obtained Certified Compliance of the EC conditions by Regional Office, MoEFCC, Chennai vide letter No: EP/12.1/595/A.P/ dated 24/09/2018. As per the RO report, General condition No. (iv) is partly complied and while AAQ monitoring, project proponent has been advised to ensure the parameters of AAQ monitoring in accordance with the parameters prescribed in the latest NAAQS standards.
- 32.3.19 M/s Orient Cement Limited had earlier made an online application vide proposal no. IA/TG/IND/140701/2007 dated 28/12/2020. The proposal was considered during the 28<sup>th</sup> meeting of the Re-constituted EAC (Industry-I) held during 18-20<sup>th</sup> January, 2021 wherein following deliberations were made:

#### **Observations of the Committee (EAC during 18-20<sup>th</sup> January, 2021)**

- i. *Green belt shall be developed in 40% area. Tree density has been indicated as 600 trees only per acre against the requirement of 1000 trees per acre.*



- ii. Waste oil generated in the plant is proposed to be burnt in the kiln. No proposal for recycling of the same by registered recyclers.
- iii. NOx level from Kiln IV are higher than other old kilns. Measures to reduce NOx have not been described.
- iv. No details are available on energy conservation measures.
- v. Parking area for 50 vehicles only has been provided inside the factory premises.
- vi. TOR point # 9 has not been addressed as per requirement. EMD organization chart shows the environment function not reporting to full time director on the Board.
- vii. PH issues need to be revised to present year wise completion schedule.
- viii. STP for domestic waste water treatment along with filter press not provided.
- ix. Emission calculations shall be reworked out as the GLC calculations with 3 D terrain has not been done.
- x. Dioxin and Furan monitoring schedule not discussed.
- xi. Water requirement is met from ground water and mine pit water. No attempt has been made to explore surface water availability.
- xii. Layout drawing is to be revised to exclude 11 acres of land which is not required.
- xiii. EIA Report does not quantify impacts and mitigation measures.

#### **Recommendations of the Committee (EAC during 18-20<sup>th</sup> January, 2021)**

In view of the foregoing and after deliberations, the committee recommended to return the proposal in present form.

32.3.20 The project proponent resubmitted the proposal vide no. IA/TG/IND/200627/2007 dated 01/03/2021 after compliance of the queries raised by EAC in the aforesaid meeting. The proposal was considered by the EAC (Industry 1) in its 32<sup>nd</sup> meeting of the Re-constituted EAC (Industry-I) held on 15<sup>th</sup>-17<sup>th</sup> March, 2021.

32.3.21 The replied submitted by the proponent to the observations of EAC is summarized as below:

- i. OCL will take up gap filling in the existing greenbelt area of 110 acres by increasing the density of trees from 600 tree/acre to 1000 tree/acre. About 44000 saplings will be planted for gap filling in 110 acre. In the proposed greenbelt area of additional 65 acres, 65000 saplings will be planted at the rate of 1000 tree/acre An amount of Rs164 Lakhs is earmarked for planting total 109000 saplings and schedule of completion within 3 years. Species to be planted shall be local and hardy.
- ii. OCL has obtained consent for disposing the same to authorized recyclers vide CFO ref no. TSPCB/CFO/NZB/HO/2017 dated 01.06.2017 valid up to 30.06.2022.
- iii. NOx emission of Kiln – IV is calculated for 600 mg/Nm<sup>3</sup>. The NOx emission of 189 gm/sec is corrected to 139 gm/sec. NOx emissions in Kiln-IV will be controlled by adopting the following measures. The kiln will be equipped with 6 stage preheater along with Inline calciner. Low NOx burner with multichannel burner will be installed for kiln with optimized primary air. Latest Technology pyro system will be installed for better control of emission

- iv. OCL has implemented various measures in the existing plant for conservation of energy. The project has achieved the following energy conservation in the existing plant;
  - a. Specific heat consumption reduced from 724 to 702 kcal/ kg clinker.
  - b. Power consumption of Clinker Manufacturing reduced from 63.4 To 52.7 kwh/Ton.
  - c. Power consumption of Cement Grinding reduced from 80.5 to 67.8 kwh/Ton
  - d. The proposed new units are designed for the following:
    - Specific heat consumption of 690 kcal/ kg clinker .
    - Power consumption of Clinker Manufacturing of 52 kwh /Ton .
    - Power consumption of Cement Grinding – OPC 80 kwh/Ton and PPC 63 kwh Ton.
  - e. OCL will implement 25 MW WHRB CPP under the expansion phase to conserve Heat Energy.
  - f. OCL has implemented LED lighting system which has resulted in energy conservation of 12260 Units/annum.
  - g. Another 6600 LED lights will be implemented in future which will conserve energy to the tune of 1759049 units /annum.
  - h. Further LED street lighting with solar panels will provided in Devapur Village (160nos) and Maddimada Village (100 nos).
- v. Parking for 50 vehicles is provided due to availability of railway siding facility in the Plant. Parking is provided for 350 vehicles outside main gate in own land.
- vi. The Organization Chart of Environmental Management Cell has been revised. The Revised EMD Cell with reporting of Environmental performance to Board of Directors is presented in the Revised Final EIA Report  
The procedure of reporting non Compliances is as follows in sequence:  
Compliances are updated on regular intervals by the concerned. At the end of each month, a monthly report of the updated compliance is generated. Further, the same will be reviewed by the steering committee consisting of Chief Operating Officer, Chief Financial Officer, Senior Vice President – Human Resources and the Company Secretary. At the end of each and every quarter, the Company Secretary presents the compliance certificate to the Board of the Directors.
- vii. The revised statement of PH issues incorporating action plan giving details of physical numbers, village and budget are provided in revised Final EIA Report.
- viii. OCL is operating full-fledged sewage treatment plant The sludge from secondary clarifier is sent to sludge drying bed. OCL has explored the possibility of installation of Filter Press for STP sludge as per the advice of EAC. Based on the information obtained, Filter press for dewatering of Organic STP sludge will result in fouling and maintenance of the same will be difficult. Also after Filter press the organic sludge has to be dried to remove moisture further in the sludge drying beds. OCL would like to submit continuation of Sludge Drying Beds for dewatering and drying.
- ix. Ground Level concentrations are estimated considering 3 D terrain. The same was presented in the Final EIA Report and to the EAC on 18.01.2021 Due to

- reduction/change in NOx emission values, Modeling study has been reworked adopting the same 3D terrain. Revised modelling study is presented in Revised Final EIA Report.
- x. Dioxin and Furan monitoring is being carried out whenever Hazardous waste is fired. The reports of the same were also presented to the EAC. Firing of hazardous material is not a continuous process and is based on availability of considerable quantity. OCL will monitor Dioxin and Furan whenever hazardous waste is fired. Details are provided in the Revised Final EIA Report.
  - xi. OCL has reduced water consumption from 3500 m<sup>3</sup>/day to 3250 m<sup>3</sup>/day with expansion. Water requirement of plant operations i.e 2750 m<sup>3</sup>/day is met from Mine Pit where rainwater is harvested. Only Drinking water requirement of 500 m<sup>3</sup>/day (for the plant and colony) is met from ground water for which necessary permission is obtained. Surface water body is not existing within 15 km distance of plant site.
  - xii. Layout of the plant has been revised excluding additional area of 11 acres.
  - xiii. The impacts are quantified and are presented in in the Revised Final EIA Report

### Observations of the Committee

32.3.22 The Committee noted the following:

- i. Tree density adopted for the Green belt shall be 1000 trees per acre in place of 600 trees per acre
- ii. 3600 trees are to be cut as per the revised proposal due to the exclusion of additional area of 11 acres which needs to be revisited.

### Recommendations of the Committee

32.3.23 In view of the foregoing and after detailed deliberations, the committee deferred the consideration of the proposal and sought following additional information for further consideration of the proposal:

- i. Action plan for green belt development in 40% area with a tree density of 1000 trees per acre. Further, 50 m area between plant and Rolo RF shall be maintained as buffer and shall be planted as Green belt.
- ii. The number of trees proposed to be cut is very high. The project proponent should review and submit a revised plan with minimum tree felling. They should also furnish the details of the trees to be cut.
- iii. OCL shall install Filter Press for STP sludge dewatering.
- iv. Monitoring schedule for dioxin and furan shall be submitted.

32.4 Setting up of Greenfield Integrated Steel Plant with a capacity of 4.5 MTPA Crude Steel and 6.0 MTPA finished product by **M/s. Arcelor Mittal Nippon Steel India Limited** at Hazira, **Surat District, Gujarat**. [Online Proposal No. IA/GJ/IND/199702/2021; File No. J-11011/76/2021-IA.II(I)] – **Prescribing of Terms of Reference – regarding.**

32.4.1 M/s. Arcelor Mittal Nippon Steel India Limited has made an application online vide proposal no. IA/GJ/IND/199702/2021 dated 24/02/2021 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 & nonferrous) under Category “A” of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

- 32.4.2 The proposal was placed before the EAC (Industry 1) in its 32<sup>nd</sup> meeting held on 15<sup>th</sup>-17<sup>th</sup> March, 2021.
- 32.4.3 The project of M/s. Arcelor Mittal Nippon Steel India is located at Hazira village, Choryasi tehsil, district Surat, Gujarat is for setting up of greenfield Integrated Steel Plant with a production capacity of 4.5 MTPA Crude Steel and 6.0 MTPA finished product (HR Coils) in an area of 314.85 ha by demolishing existing AM/NS India township and offices spread over an area of 100.7 ha, diversion of 67.85 ha forest land and usage of 146.50 ha unutilized land in possession of the proponent.
- 32.4.4 During the meeting, the project proponent was unable to explain the salient features of the proposed green field project inter-alia demolition plan of existing township, cargo handling capacity of the existing jetty and requirement of fresh EC and CRZ clearance for jetty for enhanced cargo handling capacity.
- 32.4.5 With respect to the instant proposal under consideration, both PP as well as the consultant - M/s M. N. Dastur & Co (P) Limited were unable to provide requisite information as sought by the EAC during the meeting. Further, Form I has been filled with generic information and no project specific quantities have been provided and as such no inference could be drawn for taking decision on grant of ToR.

#### **Recommendations of the Committee**

- 32.4.6 In view of the foregoing and after deliberations, the Committee recommended the following:
- i. Proposal shall be returned in present form to address the concerns of the Committee as enumerated above.
  - ii. SCN may be issued to the EIA consultant as the Form I has been filled with generic information and no project specific quantities have been provided which are essentially required for due-diligence by the EAC.
- 32.5 Proposed 1 x 18 MVA Silico-Manganese ferro-alloys production plant by **M/s. Manganese Ore India Limited (MOIL)** located near Ranjhana Village, Gumgoan, Khapa, at Saoner, Gumgoan Mines, **District Nagpur, Maharashtra**. [Online Proposal No. IA/MH/IND/175885/2020; File No. J-11011/79/2021-IA.II(I)] – **Prescribing of Terms of Reference** – regarding.
- 32.5.1 M/s. Manganese Ore India Limited (MOIL) has made an application online vide proposal no. IA/MH/IND/175885/2020 dated 20/02/2021 along with the application in prescribed for (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 & nonferrous) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

#### **Details submitted by Project proponent**

- 32.5.2 The project of M/s Manganese Ore India Limited (MOIL) located at Village- Ranjhana, Tehsil- Nagpur, District- Nagpur, State: Maharashtra is for setting up of a new 1x18 MVA

Si-Mn Ferro-alloys plant for production of Silico-Manganese - 25,000 Tons Per Annum (TPA).

32.5.3 Environmental site settings

S. No.	Particular	Details		
1	Total land	10.02 hectare (25 Acre)		
2	Existence of habitation & involvement of R&R, if any.	Not Applicable		
3	Latitude and Longitude of the project site	<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>
		A	21°24'25.8"N	78°59'49.4"E
		B	21°24'27.0"N	79°00'0.9" E
		C	21°24'20.9"N	79°00'01.3"E
		D	21°24'20.9"N	78°59'59.3"E
		E	21°24'14.4"N	78°59'57.3"E
		F	21°24'17.52"N	78°59'50.47"E
		G	21°24'20.96"N	78°59'50.99"E
H	21°24'21.58"N	78°59'48.18"E		
4	Elevation of the project site	304-312 m above mean sea level		
5	Involvement of Forest land if any.	No		
6	Water body exists within the project site as well as study area	<b>Project site:</b> No water body within Proposed project site. <b>Study area :</b> Kanhan River – 0.5 km in East Side		
7	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	Bhandar Range Forest at 5.64 km in NNE		

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

S.No	Name	Proposed unit	
		Configuration	Production in TPA
1	Ferro Alloy Plant (Silico-Manganese)	Submerged Arc Smelting Furnace 1x18 MVA	25,000

32.5.5 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 Materials	Quantity required per annum	Source of raw material	Mode of transport
<b>1</b>	<b>Silico-Manganese</b>			
1a	Manganese Ore, SM Grade	14,800	Gumgaon Mine and nearby mines of MOIL	Self-Tippled Truck
1b	Manganese Ore, Grade GM 4516	25,575		Self-Tippled Truck
1c	Manganese Ore, GM 4187	16,150		Self-Tippled Truck
<b>2</b>	Dolomite	6,500	Domestic	Self-Tippled Truck
<b>3</b>	Coke	12,125	Domestic	Self-Tippled Truck
<b>4</b>	Coal	3,000	Local supply	Self-Tippled Truck
<b>5</b>	Iron Ore	1,875	Domestic	Self-Tippled Truck
<b>6</b>	Quartz	1,375	Domestic	Self-Tippled Truck
<b>7</b>	Electrode paste	575	Aluminum producers	Truck

32.5.6 The water requirement for the project is estimated as 585 m<sup>3</sup>/day, out of which 35 m<sup>3</sup>/day of fresh water requirement will be obtained from the Groundwater as well as mining pit and the remaining requirement of 550 m<sup>3</sup>/day will be met from the Circulation /recycled water.

32.5.7 The power requirement for the project is estimated as 22 MVA which will be obtained from MSEDCL.

32.5.8 The capital cost of the project is Rs. 136.44 crores and the capital cost for environmental protection measures is proposed as Rs. 1.82 crores. The employment generation from the proposed project is 42.

32.5.9 The project proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

32.5.10 Name of the EIA consultant: M/s. Ultra-Tech, Environmental Consultancy and Laboratory [S.No. 86, List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021].

32.5.11 Proposed Terms of Reference (*Baseline data collection period: October 2020 – December 2020*).

Sr. No.	Attributes	Parameters	Sampling	
			Frequency	No of Stations
<b>A</b>	<b>Air</b>			
1	Meteorological parameters	Wind speed, wind direction, temperature, relative humidity, rainfall, and other non-instrumental observations	Continuous for three months with hourly recording at one central location and secondary data collected from the nearest IMD	1 location
2	AAQ parameters	PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO.	24 hourly samples twice a week for three months	8 locations
<b>B</b>	<b>Noise</b>			

Sr. No.	Attributes	Parameters	Sampling	
			Frequency	No of Stations
1	Noise levels	Lday, Lnight, Leq	Hourly readings for 24 hours at 8 locations, once during study period	8 locations
<b>C Water</b>				
1	Surface Water/ Ground Water quality parameters	Physical, chemical and bacteriological parameters	Grab samples were collected from surface water (SW) and ground water (GW) sources. Sampling and analysis is carried out for once during study period	8 locations (GW) + 4 location (SW)
<b>D Land</b>				
1	Soil quality	Soil profile with chemical constituents	Once during study period	8 locations
2	Land use	Trend of land use change for different categories	Based on secondary data and satellite imagery	Study area
<b>E Biological</b>				
1	Aquatic	Terrestrial and aquatic flora and fauna in the study area	Primary survey through field studies during study period and supplemented with published data	2 aquatic locations
2	Terrestrial			5 terrestrial locations
<b>F Socio-economic parameters</b>				
1	Socio-economic aspects	Socio-economic characteristics	Based on data published in district census handbooks and field study	Once during study period

32.5.12 The proposal was considered by the EAC (Industry 1) in its 32<sup>nd</sup> meeting of the Re-constituted EAC (Industry-I) held on 15<sup>th</sup>-17<sup>th</sup> March, 2021. The observations and recommendations of EAC is given as below:

**Observations of the Committee**

32.5.13 The Committee noted the following:

- i. TOR for a green field 18 MVA Si Mn manufacturing facility at Gumgaon Maharashtra.
- ii. 24.76 ha land is available with PP for the plant installation.
- iii. Water requirement is only 35 KLD and the same shall be sourced from ground.
- iv. Proposed land is surrounded by agriculture fields and on eastern side there is a forest.
- v. SiMn slag generated in the plant shall be used for road construction.
- vi. Semi Open SAF is proposed.
- vii. HFL of Kanhan river flowing adjacent to the plant is 309.41 M and 2.14 % of the plot area is flood prone. PP proposes to use this area for tree plantation only.

### Recommendations of the Committee

- 32.5.14 After deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed at Annexure-1 read with additional ToRs at Annexure-2:
- i. Scheme to draw water from mine pits shall be proposed. No ground water shall be abstracted.
  - ii. PM level from stacks shall be less than 30 mg/Nm<sup>3</sup>. To protect agriculture crop.
  - iii. Closed SAF with 4<sup>th</sup> hole extraction system shall be used.
  - iv. SiMn slag shall be used for road construction. Maximum 90 days storage shall be permitted inside the plant for slag.
  - v. 40 % green belt shall be planted. On south and western side 25 m green belt shall be planted towards agriculture fields. In other part of the plot, normal width of 10-15 m shall be planted.
  - vi. All plant roads shall be paved and industrial vacuum cleaners shall be used to clean the roads regularly.
  - vii. Action plan to reduce the fugitive emissions from the plant shall be furnished.
  - viii. 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.
  - ix. Action plan for rain water harvesting shall be furnished.

32.6 Proposed Greenfield Integrated Steel Plant by **M/s. Shri Bajrang Steel Corporate Limited** located at Village Jalso, Tehsil Tilda, **District Raipur, Chhattisgarh**. [Online Proposal No. IA/CG/IND/195467/2021; File No. J-11011/37/2021-IA.II(I)] – **Prescribing of Terms of Reference** – regarding.

32.6.1 M/s. Shri Bajrang Steel Corporate Limited (SBSCL) has made an application online vide proposal no IA/CG/IND/195467/2021 dated 23/02/2021 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) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

### Details submitted by Project proponent

32.6.2 The project of M/s. Shri Bajrang Steel Corporate Limited located in Village Jalso, Tehsil Tilda, District Raipur, Chhattisgarh State is for setting up of a Greenfield Integrated Steel Plant.

32.6.3 Environmental site settings

S. No.	Particulars	Details
i.	Total land	The land proposed for the project is 309.72 acres (PvtLand - 201.667 acres + Govt Land 108.054 acres).
ii.	Existence of habitation & involvement of R&R, if any.	None, No R&R is involved



S. No.	Particulars	Details
iii.	Latitude and Longitude of the project site	Latitude : 21°27'51.71"N - 21°28'30.79" N & Longitude 81°47'18.98"E - 81°48'29.85"E
iv.	Elevation of the project site	290 m (avg) above msl
v.	Involvement of Forest land if any.	No Forest Land Involved
vi.	Water body exists within the project site as well as study area	<b>Project site:</b> No water Bodies exists in project area  <b>Study area</b> 1. Kirna Tank – Adjacent – W 2. Bhatapara Branch (Maha Nadi Canal) – 0.7 km – NW (under construction) 3. Krishna Irrigation Chennal – 1.1 km – WNW
vii.	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	No ESZ/ESA/national park/ wildlife sanctuary/biosphere reserve/tiger reserve/elephant in Study area

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

S.No	Description	Capacity	
1	Sponge Iron	0.6 MTPA (3x500 TPD)& (1x350 TPD)	
2	Pelletization Plant with Coal Gasifier (2 X 17000 Nm <sup>3</sup> /Hr)	1.40 MTPA	
3	Iron ore beneficiation Plant	2.0 MTPA	
4	Steel Melting Shop	0.40 MTPA	
5	Rolling Mill (Long as well as Flat Products)	0.40 MTPA	
6	Ferro Alloy Plant	Titanium Slag	18,000 TPA
		Ferro Chrome	21000 TPA
		Ferro Alloys with AOD Converter	21000 TPA
7	Power Generation (70 MW)	Waste Heat Recovery Based Power Plant (WHRB)	46 MW (4x10 MW)+ (1x6 MW)
		Coal based Power plant (CFBC)	24 MW (2x12 MW)
8	Oxygen Plant	2x250 TPD	
9	Blast Furnace (1x400 M <sup>3</sup> )	0.4 MTPA	
10	Sinter Plant (1x35 M <sup>2</sup> )	0.375 MTPA	
11	Fly Ash Brick plant	2 crore Bricks Per Annum	
12	Railway Sliding	-	

32.6.5 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 Materials (Input)	Quantity (TPA)	Source	Mode of Transportation		
<b>Sponge Iron Plant</b>						
1.	Iron Ore	900000	Linkage from N.M.D.C./ Captive Iron Ore Mine/ Open Market	By Rail/Road		
2.	Dolomite	36000	Open Market	By Road		
3.	Non Coking Coal	600000	Linkage from S.E.C.L./Imported Coal	By Rail/Road		
<b>Blast Furnace</b>						
4.	Iron Ore Lumps	100000	Linkage from N.M.D.C./ Captive Iron Ore Mine/ Open Market	By Rail/Road		
5.	Sinter /Pellet	540000	Captive	By Road		
6.	Coke	156000	Open Market	By Road		
7.	Pulverized Coal	60000	Open Market	By Road		
8.	Other Fluxes	40000	Open Market	By Road		
<b>Iron Ore Beneficiation Plant</b>						
9.	Iron Ore	20,00,000	Linkage from N.M.D.C./ Captive Iron Ore Mine/ Open Market	By Rail/Road		
<b>Pelletization Plant</b>						
10.	Beneficiated Iron Ore	14,28,000				
11.	Pulverized Fuel	49,000				
12.	Bentonite	11,200	Open Market	By Road		
13.	Lime stone	21,000	Open Market	By Road		
<b>Ferro Alloys Plant (Ferro Manganese/Silico Manganese)</b>						
<b>A Ferro Manganese</b>						
14.	Manganese	46200	Linkage From MOIL	By Road		
15.	Coal	5250	Open Market	By Rail/Road		
16.	Coke	8400	SECL	By Rail/Road		
17.	Fluxes	4200				
<b>B Silico Manganese</b>						
18.	Manganese	42000	Linkage From MOIL	By Road		
19.	Ferro Manganese Slag	10500				
20.	Coke	5775	Open Market	By Rail/Road		
21.	Coal	9450	SECL	By Rail/Road		
22.	Fluxes	2625				
<b>C Titanium Slag</b>						
23.	Coke/Coal	6300	Open Market	By Road		
24.	Ilmenite Ore	36000	Open Market	By Rail/Road		
25.	Graphite	450				
<b>D Ferro Chrome</b>						
26.	Chrome Ore	48300	Open Market	By Road		

S. No.	Raw Materials (Input)	Quantity (TPA)	Source	Mode of Transportation
27.	Coke	10000	Open Market	By Road
28.	M.S. Scrap	1050	Open Market	By Road
29.	Anthracite Coal	2000	Open Market	By Road
30.	Magnesite/Bauxite	4200	Open Market	By Road
<b>Steel Melting Shop</b>				
31.	Sponge Iron	208000	Captive plant	<b>Internal generation</b>
32.	Hot Metal	220000	Captive plant	
33.	Melting Scrap	20000	Captive plant	
34.	Ferro Alloys	6000	Captive plant	
35.	Fluxes	40000		
<b>Hot Re-Rolling Mill</b>				
36.	Billets & Blooms	420000	Captive plant	-
37.	Furnace Oil	9600		
<b>Sinter Plant</b>				
38.	Iron Ore fines	262500		
39.	Return Sinter fines	75000	Captive use	
40.	Fluxes	131250	Open market	<b>Road</b>
41.	Non Coking Coal	22500	Open market	<b>Road</b>
	<b>Coal Gasifier</b>	<b>(2 X 17000 Nm<sup>3</sup>/Hr)</b>		
42.	Raw Coal (Coal Gasifier)	50,000	SECL	By Rail/Road
	<b>CFBC (Coal Based Power Plant)</b>	<b>24 MW</b>		
43.	Coal	153780	SECL	By Rail/Road

32.6.6 The water requirement for the project is estimated as 8236 m<sup>3</sup>/day, This will be met from River Shivnath. SBSCL has applied for tapping the water from River Shivnath. No groundwater will be abstracted. The water will be drawn from a reservoir from their own company situated at village Tandwa & Kundru. The separate meter shall be provisioned for checking the consumption of the proposed plant. The company already constructed Anicut and laid a pipe line for the existing Tilda plant long back which shall be utilized for this project also.

32.6.7 The electric power requirement for the project will be fulfilled from Captive Power plant. The details of captive Power plant are as follows:

S. No.	
1.	WHRB – 3 X 10 MW +1x6 MW =36 MW
2.	Blast F/C – 10 MW
3.	CFBC -2x12 MW =24 MW
<b>Total</b>	<b>70 MW</b>

Requirement of Power to be fulfilled by proposed Captive Power Plant of 70 MW. However, Power to the tune of 4 MW will be required at 132 KV supply voltage from Chhattisgarh State Power Distribution Company Limited.

- 32.6.8 The capital cost of the project is Rs. 1400 Crores and the capital cost for environmental protection measures is proposed as Rs. 140 Crores. The employment generation from the proposed project is 2500.
- 32.6.9 The project proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.
- 32.6.10 Name of the EIA consultant: M/s B.S. Envi Tech Pvt. Ltd. [S.No. 136, List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021]
- 32.6.11 Proposed Terms of Reference (Baseline data collection period: Summer season-2021 covering the months of March to May, 2021).

Attributes		Sampling		Remarks
		No. of Stations	Frequency	
A. Air a) Meteorological Parameters  b) AAQ parameters	Temperature, wind speed, wind direction, relative humidity, rainfall, and cloud cover	1	24 hours	-
	PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> , and CO	8	Twice a week per month for three months	-
B. Noise	day and night	8	24 hour reading will collected once in the monitoring season	-
C. Water Surface water/Ground water quality parameters	IS10500 & GSR 422(E) Standards	8	Once in monitoring season	-
D. Land a) Soil quality  b) Land use	as per CPCB covering Texture, pH, Electrical Conductivity, Exchangeable Cations, CEC, Organic Carbon, Organic Matter available NPK and Heavy Metals	8	Once in monitoring season	-
	Remote sensing satellite data	10 km radial distance	-	-

E. Biological a. Aquatic b. Terrestrial	Primary as well as secondary data will be conducted for flora and fauna of the study area during monitoring Season.
F. Socio-economic parameters	Socio-economic aspects like infrastructural availability, amenities and demographic structure will be covered based on the Census documents along with primary data collection through socio-economic survey.

32.6.12 M/s. Shri Bajrang Steel Corporate Limited had earlier made an online application vide proposal no. IA/CG/IND/195467/2021 dated 29/01/2021. The proposal was considered during the 30<sup>th</sup> meeting of the Re-constituted EAC (Industry-I) held on 10-11<sup>th</sup> February, 2021 wherein following deliberations were made:

**Observations of the Committee (EAC during 10-11<sup>th</sup> February, 2021)**

- i. *Nearest settlement is Nakti Khapra, 800 m away in direction NNE.*
- ii. *Nearest water body s Kirna Tank adjacent to the plant boundary. Mahanadi canal at a distance of 700 m is under construction. Krishna Irrigation canal is 1.1 Km away. Site is 3-10 m above the level of Kirna Tank.*
- iii. *A road is passing through the proposed plot.*
- iv. *Details of two more sites studied are not available.*
- v. *Alternate sites and technologies have not been discussed.*
- vi. *A PGP is also to be installed, details of which are not available in pre-feasibility report.*
- vii. *Jigging and briquetting plant details in Fe Cr Circuit are not given.*
- viii. *Most of the details sought in the Form I have not been adequately filled in.*

**Recommendations of the Committee (EAC during 10-11<sup>th</sup> February, 2021)**

In view of the foregoing observations and after deliberations, the committee recommended to return the proposal in present form.

32.6.13 The project proponent resubmitted the proposal vide no. IA/CG/IND/195467/2021 dated 23/02/2021 after compliance of the queries raised by EAC in the aforesaid meeting. The proposal was considered by the EAC (Industry 1) in its 32<sup>nd</sup> meeting of the Re-constituted EAC (Industry-I) held on 15<sup>th</sup>-17<sup>th</sup> March, 2021. The observations and recommendations of EAC is given as below.

**Observations of the Committee**

32.6.14 The EAC noted the following:

- i. This plant was issued TOR on 13/11/2019. Site is being shifted hence fresh TOR.
- ii. Nearest settlement is Nakti Khapra, 800 m away in direction NNE. No RF is located in 10 km area.
- iii. Nearest water body is Kirna Tank adjacent to the plant boundary. Mahanadi canal at a distance of 700 m is under construction. Krishna Irrigation canal is 1.1 Km away.
- iv. A 3-meter-wide road is passing through the proposed plot. PP has committed to divert this road to Eastern side. A budget provision of Rs. 2 Cr is made for the same.
- v. Source of 5.4 MCM/yr water is Sheonath River. No ground water shall be used.
- vi. Railway siding is proposed.

- vii. Kirna Tank shall be protected by constructing a bund wall on southern side and by planting 10m green belt along the boundary.

### **Recommendations of the Committee**

32.6.15 After deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed at Annexure-1 read with additional ToRs at Annexure-2:

- i. PM emissions shall be less than 30 Mg/Nm<sup>3</sup>.
- ii. Sinter machine shall be equipped with Bag house instead of ESP and dust emission from Stack of sinter plant shall be less than 30 mg/Nm<sup>3</sup>.
- iii. Ponding of tailings shall be done after dewatering of same in filter press.
- iv. Natural drainage of the plant shall be protected.
- v. Kirna tank shall be protected by planting 30 meter green belt on southern side of the Plant.
- vi. TRT shall be installed on 400 m<sup>3</sup> Blast Furnace.
- vii. Air cooled condensers shall be installed in Power plant.
- viii. Producer gas Plant shall be closed circuit type. Phenolic water from PGP shall be treated for phenol, tar and cyanide.
- ix. SAF shall have 4<sup>th</sup> Hole extraction system for fume extraction.
- x. No GW shall be withdrawn.
- xi. TCLP test shall be conducted on Chrome slag for finalizing environment friendly mode of disposal.
- xii. A jigging and briquetting plant is included.
- xiii. All plant roads shall be paved and industrial vacuum cleaners shall be used to clean the roads regularly.
- xiv. Action plan to reduce the fugitive emissions from the plant shall be furnished.
- xv. 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.
- xvi. Parking for at least 50 trucks shall be provided inside the plant.
- xvii. Action plan for rain water harvesting shall be furnished.

32.7 Proposed Clinker Grinding Unit of 40,000 TPA Cement (OPC, PPC, PSC&SSC) by **M/s Jay Shree Kripa Cement Pvt Ltd** located at G-27 (E) RIICO Industrial Area Sotanala, Tehsil-Behror **District Alwar Rajasthan**. [Online Proposal No. IA/RJ/IND/199835/2021; File No J-11011/77/2021-IA.II(I)] – **Prescribing of Terms of Reference**– regarding.

32.7.1 M/s. Jay Shree Kripa Cement Pvt Ltd has made an application online vide proposal no IA/RJ/IND/199835/2021 dated 24/02/2021 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 (b) Cement plants Under Category “A” of the schedule of the EIA Notification, 2006 and attracts general condition due to the Inter-state boundary (Rajasthan and Haryana) is 3.83 km towards W from the site and being appraised at Central Level.

**Details submitted by Project proponent**

32.7.2 The project of M/s Jay Shree Kripa Cement Pvt Ltd located G-27 (E) RIICO Industrial Area Sotanala, Tehsil-Behror District -Alwar Rajasthan State is for setting up of a new Clinker Grinding Unit for production of 40,000 TPA Cement (OPC, PPC, PSC& SSC).

32.7.3 Environmental site settings

S.No.	Particulars	Details		Remarks
i	Total land	1500 SQM		Industrial land use
ii	Existence of habitation & involvement of R&R, if any	Not applicable		
iii	Latitude and Longitude of the project site	Latitude	Longitude	
		27°49'42.90"N	76°15'49.19"E	
		27°49'42.70"N	76°15'50.22"E	
		27°49'41.13"N	76°15'49.89"E	
	27°49'41.27"N	76°15'48.84"E		
iv	Elevation of the project site	328MSL		
v	Involvement of Forest land if any.	No Forest land Involved		
vi	Water body exists within the project site as well as study area	<b>Project site:</b> No water body or nallah or streams exists within the project site.		
		<b>Study area</b>		
		<b>Water body</b>	<b>Distance</b>	
		Sota Nadi	1.10 km, N	
	Sahibi or SabiNadi	2.74, SSE		
vii	Existence of ESZ/ESA/national park /wildlife sanctuary/biosphere reserve/ tiger reserve /elephant reserve etc. if any within the study area	No national park /wildlife sanctuary/ biosphere reserve/ tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project.		

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

S.No	Name	Proposed unit	
		Configuration	Production TPA
1	Clinker Grinding unit	(OPC, PPC, PSC&SSC) 1x 125 TPD	40,000

32.7.5 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	Proportion, % by weight	Quantity (TPA)	Source	Mode of Transportation
<b>Raw Material Requirements for OPC, Source &amp; Transportation</b>					

1	Clinker	95	38000	J K Lakshmi cement Sirohi	By Road
2	Gypsum	5	2000	Nagaur/ Bikaner	By Road
<b>Raw Material Requirements for PPC, Source &amp; Transportation</b>					
1.	Clinker	60	24000	J K Lakshmi cement Sirohi/Wonder Cement	By Road
2.	Gypsum	5	2000	Nagaur/ Bikaner Districts and Gujrat	By Road
3.	Fly ash	35	14000	Kota	By Road
<b>Raw Material Requirements for PSC, Source &amp; Transportation</b>					
1.	Clinker	40	16000	J K Lakshmi cement Sirohi	By Road
2.	Gypsum	5	2000	Nagaur/ Bikaner Districts	By Road
3.	Slag	55	22000	Jindal Steel Hisar	By Road
<b>Raw Material Requirements for SSC, Source &amp; Transportation</b>					
1.	Clinker	15	9000	J K Lakshmi cement Sirohi	By Road
2.	Gypsum	15	9000	Nagaur/ Bikaner Districts	By Road
3.	Slag	70	28000	Jindal Steel Hisar	By Road

- 32.7.6 The water requirement for the project is estimated as 5 KLD, which will be met from RIICO. The permission for water supply from RIICO will be obtained.
- 32.7.7 The power requirement for the project is estimated as 350 kWh which will be obtained from JVVNL.
- 32.7.8 The capital cost of the project is Rs 1.6 Crores and the capital cost for environmental protection measures is proposed as Rs 34 lacs. The employment generation from the proposed project is 15 persons.
- 32.7.9 The project proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.
- 32.7.10 Name of the EIA consultant: M/s Enkay Enviro Services Pvt Ltd Jaipur [S.No. 102, List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021]
- 32.7.11 Proposed Terms of Reference (Baseline data collection period: October '2020, November & December' 2020).

Attributes	Sampling		Remarks
	No. of stations	Frequency	
<b>A. Air</b>			



Attributes	Sampling		Remarks
	No. of stations	Frequency	
a. Meteorological parameters	1 location at project site	One hourly continuous for one season	Automatic Weather stations with sensor and microprocessor Max/ Min Thermometer Hygrometer Anemometer Rain gauge As per IMD specifications
b. AAQ parameters	9	As per NAAQS, For Study Period Twice a week	Particulate Matter (PM <sub>10</sub> , PM <sub>2.5</sub> ), Sulphur Dioxide (SO <sub>2</sub> ), Oxides of Nitrogen (NO <sub>x</sub> ) and Carbon Monoxide (CO) etc.
B. Noise	9	Once during baseline study period	Parameters Monitored: • Day equivalent • Night equivalent
C. Water			
Surface water/Ground water quality parameters	Surface water-2 Ground water-9	Once during baseline study period	(a)physical parameters (b)chemical parameters (c) Biological parameters
D. Land			
a. Soil quality b. Land use	9	Once during baseline study period	
E. Biological a. Aquatic b. Terrestrial	8	Once during baseline study period	
F. Socio-economic parameters	Study area	In two phases of the project	

32.7.12 The proposal was considered by the EAC (Industry 1) in its 32<sup>nd</sup> meeting of the Re-constituted EAC (Industry-I) held on 15<sup>th</sup>-17<sup>th</sup> March, 2021. The observations and recommendations of EAC is given as below.

#### Observations of the Committee

32.7.13 The EAC noted the following:

- i. A green field cement grinding unit of 40000 TPA capacity at Behror Alwar Rajasthan.
- ii. Plant located in Industrial area of RIICO.
- iii. Water requirement is 5 KLD. RIICO will supply water.
- iv. Total land area is 1500 Sq M .

### Recommendations of the Committee

- 32.7.14 After deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed at Annexure-1 read with additional ToRs at Annexure-2:
- i. PM emissions from stacks shall be less than 30 mg/Nm<sup>3</sup>.
  - ii. Green belt shall be planted in 33 % area.
  - iii. Plant shall be on ZLD.
  - iv. All plant roads shall be paved and industrial vacuum cleaners shall be used to clean the roads regularly.
  - v. Action plan to reduce the fugitive emissions from the plant shall be furnished.
  - 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. Action plan for rain water harvesting shall be furnished.
- 32.8 Expansion of existing plant of manufacturing of Ferro alloy plant (36,000 TPA to 85,200 TPA) and set-up of New Sinter plant (66,000 TPA) & Briquette plant (16,500 TPA) by **M/s Vandana Global Limited** at Siltara Industrial Growth Center, Phase-II, **Siltara, Dist. Raipur, Chhattisgarh**. [Online Proposal No. IA/CG/IND/201028/2021; File No J-11011/558/2007- IA II (I)] – **Prescribing of Terms of Reference**– regarding.

The project proponent vide email dated 10/03/2021 expressed their inability to participate in the meeting and requested to withdraw their proposal. In view of this, the Committee recommended for the withdrawal of the proposal.

### 16<sup>th</sup> March, 2021

- 32.9 Proposed Expansion of Existing Sponge Iron Plant (0.18 MTPA DRI Plant and 22 MW CPP) to Integrated Steel Plant (0.5775 MTPA Steel Capacity with 109 MW CPP) in Karakolha Sponge Iron division by **M/s. Rungta Mines Limited** located at villages Karakhendra & Karakolha, **District Keonjhar, Odisha**. [Online Proposal No. IA/OR/IND/59204/2016; File No. J-11011/229/2016-IA.II(I)] – **Environment Clearance** – regarding.
- 32.9.1 M/s Rungta Mines Ltd. has made an online application vide proposal no. IA/OR/IND/59204/2016 dated 05/03/2021 along with copy of EIA/EMP report and Form-2 seeking Environmental Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3 (a) Metallurgical industries (Ferrous & non-ferrous) & 2 (b) Minerals Beneficiation under Category “A” of the schedule of the EIA notification, 2006 and appraised at Central level.

### Details submitted by Project proponent

- 32.9.2 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord
18/06/2019	8 <sup>th</sup> meeting of EAC held on 26 <sup>th</sup> June 2019	Terms of Reference	18/07/2019

Date of Application	Consideration	Details	Date of Accord
11/06/2020	20 <sup>th</sup> meeting of EAC held on 25-26 <sup>th</sup> June 2020	Amendment in TOR	13/07/2020

32.9.3 The project of M/s Rungta Mines Limited is located in Karakolha & Karakhendra Village, Barbil Tehsil, Keonjhar District, Odisha State is setting up expansion of 0.18 MTPA Sponge Iron to 0.5775 MTPA crude steel and 22 MW to 109 MW Captive Power Plant (CPP).

32.9.4 Environmental Site Settings

S.No.	Particulars	Details
i.	Total land	64.88 ha [Private: 46.59 ha; Govt. 0.67 ha; Forest Land 17.62 ha]
ii.	Land acquisition details as per MoEF&CC O.M dated 7/10/2014	Acquired :10.18 ha Under acquisition : 54.70 ha
iii.	Existence of habitation & Involvement of R&R, if any.	No habitation in the proposed site. No R&R is involved
iv.	Latitude and Longitude of the project site	<b>Plant &amp; Facilities :</b> Lat- 22° 07' 47.36" to 22° 08' 21.87" N Long- 85° 24' 55.88" to 85° 25' 18.93" E <b>Solid Waste Processing area with water storage:</b> Lat- 22° 08' 48.01" to 22° 09' 08.52" N Long- 85° 24' 48.50" to 85° 25' 16.45" E
v.	Elevation of the project site	458-478m AMSL
vi.	Involvement of Forest land if any.	Application for Forest Clearance over an area of 17.62 ha has been submitted vide online proposal no. FP/OR/IND/45849/2020 and the same is under process.
vii.	Water body exists within the project site as well as study area	<b>Project Site:</b> Nil <b>Study area:</b> Nearest stream is Betlata Nala at 2.0 km East and nearest river is Karo River at 4.5 km WNW.
viii.	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	Nil

32.9.5 The land acquisition details are furnished as below:

Plant Area	Land ownership	Status			Remark
		Acquired, ha	Under acquisition, ha	Total, ha	
Existing	Private	10.18	0.0	10.18	Direct purchase

Plant Area	Land ownership	Status			Remark
		Acquired, ha	Under acquisition, ha	Total, ha	
as per EC	Govt.	0.0	0.0	0.0	
	<b>Total</b>	<b>10.18</b>	<b>0.0</b>	<b>10.18</b>	
Expansion	Private	0.0	36.41	36.41	<b>36.4 ha -</b> <ul style="list-style-type: none"> <li>• IPICOL had issued <b>in-principal approval for allotment</b> vide letter dated 06.03.2019.</li> <li>• 10% deposit made against , which has been paid on 02.04.2019 and communicated vide letter dt.05.04.2019</li> </ul>
	Govt.	0.0	0.67	0.67	
	Forest	0.0	17.62	17.62	
	<b>Total</b>	<b>0.0</b>	<b>54.7 0</b>	<b>54.70</b>	

32.9.6 The existing project was accorded Environmental Clearance vide Ir.no. J-11011/229/2016-IA.II (I) dated 28/08/2018. Consent to Operate for the existing unit was accorded by Odisha State Pollution Control Board vide letter no. 13768/IND-I-CON-2836 dated 20.11.2018. The validity of CTO is up to 31/03/2023.

32.9.7 Implementation status of the existing EC

Sl. No.	Facilities	Units	As per EC dated 28/08/2018	Implementation Status as on 10.03.2021	Production as per CTO
1.	Sponge Iron Plant				
	5x100 TPD	TPA	180000	Under operation	180000
2	WHRB based CPP	MW	12	Construction completed	-
	CFBC based CPP	MW	10	Construction completed	-
	TG	MW	1x22 MW	Construction completed	-

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

Sl. No.	Plant Facilities	Units	Annual production		
			Present sanctioned capacity as per EC dated 28.08.2018	Expansion/ Additional facility	Total
(a)	(b)		(c)	(d)	(c)+(d)
1.	Sponge Iron Plant		-		
	(i) 5x100 TPD	TPA	180,000	77,377	257,377
	(ii) 1x600 TPD	TPA	-	308,850	308,850
	<b>Sub-Total</b>	<b>TPA</b>	<b>180,000</b>	<b>386,227</b>	<b>566,227</b>
2.	Pelletisation Plant	TPA	-	1,800,000	1,800,000

Sl. No.	Plant Facilities	Units	Annual production		
			Present sanctioned capacity as per EC dated 28.08.2018	Expansion/ Additional facility	Total
(a)	(b)		(c)	(d)	(c)+(d)
3.	Steel Melting Shop	TPA	-	577,500	577,500
3.1	Steel Melting via IF route				
	i. IF Configuration			5 X 20 T	5 X 20 T
	ii. LRF configuration			3 X 25 T	3 X 25 T
3.2	CCM (2X4 strands) - billets/ bloom/ slab caster	TPA	-	565,950	565,950
4.	Rolling Mill-1	TPA	-	217,350	217,350
	Rolling Mill-2	TPA	-	326,025	326,025
	(TMT/Flat/Round/Wire Rod/ Structural Mill/others)	TPA	-	543,375	543,375
			-	1 X 30 + 1 X 45 TPH	1 X 30 + 1 X 45 TPH
5.	Silicon Manganese Alloy Plant (2 nos. X 9 MVA)	TPA	-	32,000	32,000
6.	Captive Power Plant	MW	22	87	109
6.1	WHRB based CPP	MW	10	20	30
			5 X 10 TPH	1 X 80 TPH	5 X 10 + 1 X 80 TPH
6.2	AFBC/ CFBC based CPP	MW	12	67	79
			1 X 55 TPH	1 X 150 + 2 X 60 TPH	1 X 55 + 1 X 150 + 2 X 60 TPH
6.3	TG		1 X 22 MW	1 X 57 + 2 X 15 MW	1 X 22 + 1 X 57 + 2 X 15 MW
7.	Producer Gas Plant	Nm <sup>3</sup> /hr	-	45,000	45,000

32.9.9 The details of the raw material requirement for the proposed expansion cum 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
		Total			
1	Iron Ore/ Fines/ concentrate	1,974,600	OMC/Pvt. Mines	40	Road, Rail
2	DRI	11,273	From RMLs Kamanda steel plant Odisha	40	Road, Rail
3	Lime Stone	33,600	Open Market	150	Road, Rail
4	Dolomite	56,711	Rourkela	150	Road, Rail
5	Bentonite	27,000	Open market	1800	Road, Rail

S. No.	Raw Material	Quantity required per annum	Source	Distance from site (kms)	Mode of Transportation
		Total			
6	Coke Breeze	30,600	Open market / imported	300	Road, Rail
7	Coal	1,036,883	Domestic open market/ e-auction/ linkage	340	Road, Rail
8	Pig Iron	94,158	From RMLs Kamanda steel plant Odisha	45	Road, Rail
9	Steel Scrap	31,386	Open market	125	Road, Rail
10	Quartz (94-95%)	4,800	Open market /Raigarh	315	Road, Rail
11	Charcoal /Coke	15,360	Open market /imported	340	Road, Rail
12	Electrode Paste	800	Open market	150	Road, Rail
13	Manganese ore (38-40%)	23,040	OMC/ other Pvt. Mines	40	Road, Rail
14	Low-Grade high silicon Moil ore	27,680	Open market	50	Road, Rail
15	Fe-Mn slag	23,040	Open Market	40	Road, Rail
16	Cement purchase for own brick plant	16,477	Open market	120	Road, Rail
17	Fuel Oil	39,478	Nearest oil depot	150	Road
	<b>Total</b>	<b>3,446,886</b>			

32.9.10 The water requirement for the project is estimated as 14,447 m<sup>3</sup> /day, out of which 13,974 m<sup>3</sup>/day of fresh water requirement will be obtained from the Surface & Ground Water and the permission for drawl of groundwater of 550 KLD water is obtained from CGWA vide letter no. 21-4(117)/SER/CGWA/2009-792, dated 01/05/2018 and Surface water of 6.72 cusec water is obtained from Irrigation Department vide Lr. No. 26303/WR, dated 21/11/2019.

32.9.11 The power requirement for the project is estimated at 109 MW, which will be obtained from in-house Power Plant.

32.9.12 Baseline Environmental Studies:

Period	01/03/2019 to 31/05/2019
AAQ parameters at 9 locations	PM <sub>2.5</sub> = 23.4 to 44.3 µg/m <sup>3</sup> PM <sub>10</sub> = 40.6 to 73.4 µg/m <sup>3</sup> SO <sub>2</sub> = <6.0 to 15.3 µg/m <sup>3</sup> NO <sub>2</sub> = 7.9 to 20.4 µg/m <sup>3</sup> CO = 0.12 to 0.788 mg/m <sup>3</sup>
AAQ modelling	PM <sub>10</sub> =6.51 µg/m <sup>3</sup> SO <sub>2</sub> =0.019 µg/m <sup>3</sup> NOx =0.015 µg/m <sup>3</sup>

Ground water quality at 11 locations	pH: 6.6 to 7.5, Total Hardness: 44 to 316 mg/l, Chlorides: 7 to 79 mg/l, Fluoride: BDL to 0.22 mg/l. Heavy metals are within the limits.
Surface water quality at 12 locations	pH: 6.8 to 7.9; DO: 6.7 to 7.3 mg/l, BOD: 10 to 15 mg/l, COD from 14 to 32 mg/l.
Noise levels	50.19 to 66.41 dB(A) for the day time and 36.50 to 65.22 dB(A) for the Night time.
Traffic assessment study findings	The Integrated steel plant, will lead to the traffic volume of HMTVs becoming 1.7 times. The increase in traffic will be 14.8% of the maximum carrying capacity.
Flora and fauna	Sloth bear, Python and elephant are the three Schedule-I species found in study area.  A “Site Specific Conservation Plan” has been prepared with respect to 20 MW (8 MW WHRB + 12 MW AFBC) Power Plant within existing premises of Sponge Iron Plant (5 X 100 TPD) at Karakolha approved by PCCF (WLW) vide letter no -5863/ 1WLEC-Industry-SSP-58/2018 dated 23/06/2018.

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

Sl. No.	Source	Type of Waste	Quantity generated (TPA)	Management
1	Pellet Plant	Dust (Iron Ore, Coke, Coal Fines)	134,527	100% recirculated to mixing bin of the pellet plant
2	Sponge Iron Plant (DRI Plant)	Char	101,919	100% reused in CFBC boiler
		ESP dust	21,360	100% reused in pellet plant or sent to sinter plant in adjoining unit of the company ‘Karakhendra steel plant’
		Bag Filter Dust, scrapper etc.	6,951	100% reused in pellet plant or sent to sinter plant in adjoining unit of the company ‘Karakhendra steel plant’
		Kiln Accretion	2,833	100% stored in and fill temporarily till reused in road sub-base in expansion area or outside
		Coal Fines from RM handling	50,960	100% reused in CPP within project
3	SMS (IF-LRF-Caster Route)	BF dust/ Ferrous dust	14,061	100% reused in pellet plant or sent to sinter plant in adjoining unit of the company ‘Karakhendra steel plant’
		Slag	111,483	100% given for metal recovery, converted to aggregates (special balls) and used in road making
	SMS (Caster)	Mill Scale	11,550	100% reuse/ sale in own/ other cement plant,

Sl. No.	Source	Type of Waste	Quantity generated (TPA)	Management
				useable in pellet making, LRF dephosphorisation process
4	Rolling Mill (TMT/ Round / Wire Rod / Structural/ Flat/ others)	Reject	10,159	100% reused in steel making within project
		Mill Scale	12,416	100% reuse/ sale in own/ other cement plant, useable in pellet making, LRF dephosphorisation process
5	Ferro Alloys Plant	Slag	70,400	100% sold
		Fines	3,280	100% sold
6	Producer gas plant	Coal Ash	29,904	100% reused as per MOEF Notification 2009. Used in cement making, brick making, block making and road making.
		Coal Tar	7,476	100% Sale
7	Captive Power Plant (AFBC/CFBC)	Fly ash Generation	224,664	100% reused as per MOEF Notification 2009. Used in cement making, brick making, block making and road making.
		Bottom ash generation	56,166	
		<b>Total</b>	<b>870,108</b>	

32.9.14 Public Consultation:

Details of advertisement given	08/01/2021
Date of public consultation	11/02/2021
Venue	Khata No. 70/7, Plot no. 185, 185/703 & 703/980 (Near OPTCL LILO Switching Station) in village Karakhola, Keonjhar
Presiding Officer	Dr. Uddhaba Chandra Majhi, Project Director, DRDA Shri Puskar Chandra Behera, Regional Officer, OSPCB
Major issues raised	i. Employment opportunity ii. Health care facility iii. Water supply iv. Road maintenance v. Pollution control measures

**Action plan as per MoEF&CC O.M. dated 30/9/2020**

Sl.	Activity requirement raised during public hearing		Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Agricultural yield improvement program	<b>Target</b>	Training program for 50 farmers in Karakolha Village	Grant to trained farmers for agricultural activity in Karakolha				
		<b>Budget</b>	100,000	150,000				250,000
2	Soil testing	<b>Target</b>	1 sample per					



MoM of 32<sup>nd</sup> meeting of the Re-constituted EAC (Industry-I) held on 15<sup>th</sup> – 17<sup>th</sup> March, 2021

Sl.	Activity requirement raised during public hearing		Year 1	Year 2	Year 3	Year 4	Year 5	Total
			trained farmer					
		<b>Budget</b>	150,000					150,000
3	6 bedded health centre in Karakhendra Steel Plant with full time doctor & other staff	<b>Target</b>			50% Running cost (1 doctor, 2 nurses, 1 compounder, 5 support staff, medicines & overheads)	50% Running cost (1 doctor, 2 nurses, 1 compounder, 5 support staff, medicines & overheads)	50% Running cost (1 doctor, 2 nurses, 1 compounder, 5 support staff, medicines & overheads)	
		<b>Budget</b>			1,740,000	1,740,000	1,740,000	5,220,000
4	Ambulance on call (already provided in Karakolha plant)	<b>Target</b>	Running cost (driver, attendant, petrol, R&M)	Running cost (driver, attendant, petrol, R&M)	Running cost (driver, attendant, petrol, R&M)	Running cost (driver, attendant, petrol, R&M)	Running cost (driver, attendant, petrol, R&M)	
		<b>Budget</b>	420,000	420,000	420,000	420,000	420,000	2,100,000
5	Training to local youth will be arranged by the company prior to recruitment with students from Karakhendra, Karakolha, Belkundi, Nalda, Dalki, Barajamda, etc.	<b>Target</b>	10 students to ITI	10 students to ITI	10 students to ITI	10 students to ITI	10 students to ITI	
		<b>Budget</b>	120,000	120,000	120,000	120,000	120,000	600,000
6	Develop one park / children/ provide mini stadium	<b>Target</b>		Renovate play ground in Karakolha village				
		<b>Budget</b>		200,000				200,000
7	Solar street lights	<b>Target</b>	20 lights in Karakolha village		20 lights in Belkundi village	20 lights in Nalda village		
		<b>Budget</b>	160,000		160,000	160,000		480,000
8	Construction of drain along main arterial road of the village	<b>Target</b>	In Karakolha (240 m)		In Belkundi (350 m)	In Nalda (400 m)		
		<b>Budget</b>	240,000		350,000	400,000		990,000
9	Avenue plantation	<b>Target</b>		Both side of the road of Mahanta Basti towards Karakolha Plant	Maintenace cost	Maintenace cost	Maintenace cost	
		<b>Budget</b>		200,000	20,000	20,000	20,000	260,000
10	Distribution of plants to villagers annually (2,000 saplings are planned for distribution)	<b>Target</b>	In Karakolha		In Belkundi	In Nalda		
		<b>Budget</b>	100,000		100,000	100,000		300,000
11	Help the SHG groups, development and promotion of their business	<b>Target</b>	5 groups in Karakolha		3 groups in Belkundi	6 groups in Nalda		
		<b>Budget</b>	250,000		150,000	300,000		700,000
12	Repairing of roads inside	<b>Target</b>	In Karakolha					

Sl.	Activity requirement raised during public hearing		Year 1	Year 2	Year 3	Year 4	Year 5	Total
	village		(240 m)					
		<b>Budget</b>	2,400,000					2,400,000
13	Regular water sprinkling	<b>Target</b>	1 water tanker, driver, fuel	Operating cost	Operating cost	Operating cost	Operating cost	
		<b>Budget</b>	696,000	132,000	143,000	154,000	165,000	1,290,000
14	Drinking water (Provision of new borewell) and repairing of water pipe line using maintenance manpower from project	<b>Target</b>	In Karakolha (1 Borewell)		In Belkundi (1 Borewell)	In Nalda (1 Borewell)		
		<b>Budget</b>	60,000		60,000	60,000		180,000
15	Educational facilities of the children	<b>Target</b>	Books for 25 students in Karakolha Village	Books for 25 students in Karakhendra Village	Books for 25 students in Belkundi Village	Books for 25 students in Nalda Village	Books for 25 students in Dalki Village	
		<b>Budget</b>	25,000	25,000	25,000	25,000	25,000	125,000
16	Jahira Mandap (Room of 12 x12 Ft with Varandah of 15 x12 Ft.) at Karakolha	<b>Target</b>	Construction	Maintenance, electricity etc	Maintenance, electricity etc	Maintenance, electricity etc	Maintenance, electricity etc	
		<b>Budget</b>	600,000	30,000	30,000	30,000	30,000	720,000
17	Old age pension scheme for Sr. citizens from Karakhendra, Karakolha, Belkundi, Nalda, Dalki, Barajamda, etc.	<b>Target</b>	15 persons	15 persons	15 persons	15 persons	15 persons	
		<b>Budget</b>	90,000	90,000	90,000	90,000	90,000	450,000
18	Bus facilities already provided for the student of Karakolha & nearby villages since 01.02.2021.	<b>Target</b>	Contractual Operation with driver, helper, petrol, R&M	Contractual Operation with driver, helper, petrol, R&M	Contractual Operation with driver, helper, petrol, R&M	Contractual Operation with driver, helper, petrol, R&M	Contractual Operation with driver, helper, petrol, R&M	
		<b>Budget</b>	516,000	546,000	576,000	600,000	660,000	2,898,000
	<b>GRAND TOTAL</b>		5,927,000	1,913,000	3,984,000	4,219,000	3,270,000	19,313,000

32.9.15 The capital cost of the project is Rs. 1678 Crores (expansion) and the capital cost for environmental protection measures is proposed as Rs. 26.56 Crores (for expansion). The annual recurring cost towards the environmental protection measures is proposed as Rs 5.53 Crores (for expansion). The employment generation from the proposed expansion is 1098. The details of cost for environmental protection measures is as follows:

Description	Capital cost (Rs. Lakhs)			Recurring cost (Rs. Lakhs)		
	Sanctioned as per ECs till day	Additio nal	Total	Sanctioned as per EC	Additio nal	Total
Air pollution control	243.00	1887	2130.00	38.61	342.974	381.584
Water pollution control	18.00	50.7	68.70	3.67	11.553	15.223
Noise pollution control	5.00	0	5.00	1.27	1.677	2.947
Env. Monitoring and management	12.00	249.1	261.10	6.18	64.231	70.411
Occupational health	7.00	63	70.00	2.62	20.594	23.214
Green belt	0.00	53.53	53.53	1.24	14.297	15.537
Others	1.50	5.5	7.00	2.35	7.952	10.302

Description	Capital cost (Rs. Lakhs)			Recurring cost (Rs. Lakhs)		
	Sanctioned as per ECs till day	Additional	Total	Sanctioned as per EC	Additional	Total
Overheads (3% of dep., energy, R&M, etc)		0		10.02	1.646	11.666
Social & infrastructure development cost for PH commitment		61.46			88.33	
<b>Total</b>	<b>286.50</b>	<b>2370.29</b>	<b>2656.79</b>	<b>65.95</b>	<b>553.264</b>	<b>619.214</b>

32.9.16 Greenbelt will be developed in 21.41 ha which is about 33% of the total project area. A 3-5m 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 53525 saplings will be planted and nurtured in 21.41 hectares in 5 years.

32.9.17 The proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration

32.9.18 Name of the EIA consultant: The EIA report was originally prepared by the consultant namely Min Mec Consultancy Pvt. Ltd. and thereafter the report was revalidated by the M/s Centre for Envotech and Management Consultancy Pvt Limited [S.No. 91, List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021] as the former consultant was not accredited by the QCI/NABET.

#### **Certified compliance report from Regional Office**

32.9.19 The status of compliance of EC was obtained from Regional Office, Bhubaneswar vide letter no. 101-1002/17/EPE dated 11/03/2021 in the name of M/s. Rungta Mines Ltd. The details of the observations made by RO in the report dated 11/03/2021 along with its present status as furnished by the PP is given below.

Sl.	Non-Compliance details	Observation of RO (abridged)	Condition no.			Response by PP
			EC date	Specific	General	
1	Greenbelt	The implementation status of developing additional 5% green belt	28.08.2018		iii	5% greenbelt works out as 0.509 ha. Against this, 2.41 ha has been planted along road from Karakolha plant to SH-108 and 2.0 ha has been planted
			15.01.2018	3		
2	Document submission	Delay in action taken report submission,	15.01.2018		iv	submitted
		Activities under WLCP	15.01.2018	1		Vehicle to PCCF office: Rs 17.84 lakhs, Fuel & maintenance Rs 3.58 lakhs, deposit into CAMPA fund under process

Sl.	Non-Compliance details	Observation of RO (abridged)	Condition no.		Response byPP	
			EC date	Specific		General
		Funds towards environment protection	15.01.2018	4		Rs. 3.439 crores for environmental monitoring, bag filter, STP, CAAQMS, Occupational health, Water sprinkling, Electricity charges, Manpower cost (STP Maintenance), Plantation, etc.
		water quality monitoring report from the Piezometer	15.01.2018		2-ii	Water quality monitoring completed by Mitra S.K. Lab & results will be submitted
3	Pollution control & monitoring	Emission higher than norms occasionally from stack	15.01.2018		1-i	Closure and sealing of safety cap ensuring no leakage
		Installation of CAAQ monitoring system in the fourth locations.	15.01.2018		1-iii	Three installed, fourth is under installation and will be completed by 30.04.2021
		initiate the process of providing mobile or stationary vacuum cleaners	15.01.2018		3-v	Will be procured by 30.04.2021
		Raw material found outside shed	15.01.2018		3-viii, 4-iii	As per practice, raw material unloaded outside shed is shifted under shed using dozers
		Pond to be desilted	15.01.2018		4-iv	The 22 MW power plant construction work was on-going. Hence, de-siltation work shall be completed by 31.03.2021.
		heat stress analysis for workers working in high temperature zone	15.01.2018		10	Heat stress analysis for worker shall be completed by 30.04.2021.

**Written submissions during the course of meeting**

32.9.20 PP has submitted written clarifications on the following points during the course of meeting:

**Number of days of operation of the plant**

**Response.** PP clarified that the number of days the plant will operate for 355 days.

**Whether truck parking can be provide in project for around 100 trucks.**

**Response.** Truck parking will be provided for 100 trucks in multiple locations within the project.

**The combined commitment of activities and budget for public hearing points should be bifurcated for Karakolha and Karakhendra plants.**

**Response.** The combined budget and the activities for public hearing points have been bifurcated and submitted for Karakolha and Karakhendra plants.

**Updated EMP cost to include the cost of the social and infrastructure activities in compliance to public hearing.**

**Response.** The updated EMP cost has been submitted.

**Details of pipeline from Karo River, responsibility for its water treatment and management of sludge**

**Response.** Department of Water Resources, Govt. Of Odisha has allocated 6.72 cusec and 5.98 cusec of water from Karo river for Karakolha Steel plant and Karakhendra Steel plant of M/s Rungta Mines Ltd. respectively.

The water will be withdrawn from the river through a channel to the proposed intake well. From there the water will be drawn through two separate pipes with pumps (P1 + P1 standby and P2 + P2 standby) designated for Karakolha Steel Plant and Karakhendra Steel plant. Both pipelines will fitted with flow meters (FM1, FM2) through which monitoring of water withdrawal for the two projects shall be carried out individually for water billing purposes. The pumped water, after passing through the flow meters will be sent to the intermediate tank for settlement of solids. The water from the intermediate tank will be treated and pumped (P3 and P3 standby) through a single pipeline to Karakolha Steel Plant and Karakhendra Steel Plant. This single pipeline will bifurcate near the plants. Again two flow meters (FM) will be installed at the delivery points of each plant for self-monitoring. The water will be received in the reservoir of the respective projects and used directly where required. The respective projects will also have individual treatment facilities such as demineralisation plant and drinking water treatment plant, separately. We have dedicated solid waste management areas in both plants where the dewatered sludge shall be stored in line with CPCBs guidelines for secured landfills.

**Observations of the Committee**

32.9.21 The EAC noted the following:

- i. The EAC found that the EIA/EMP report is in order reflecting the present environmental concerns and the projected scenario for all the environmental components arising out of the proposed project with respective mitigation measures. The EAC also noted that the baseline data reported and incremental GLC due to the proposed project were within NAAQ standards.
- ii. The EAC also deliberated on the public hearing issues as well as action plan to address the issues raised during public hearing and found it satisfactory.
- iii. The Committee also deliberated upon the certified compliance report of RO and found satisfied with the action taken report submitted by the proponent.
- iv. The EAC noted that the written submissions made by the project proponent during the course of meeting are addressing the concerns of the Committee and acceded to the same.

- v. Stage I forest clearance for diversion of 17.62 ha forest land is still under process with the concerned State Government.

### **Recommendations of the Committee**

32.9.22 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 for the instant expansion proposal subject to the stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 pertaining to integrated steel plants based on project specific requirements. The said recommendations are subjected to the submission of stage I forestry clearance as per the MoEF&CC O.M. dated 09/09/2011, 18/05/2012 and 19/06/2014 pertaining to grant of EC which involves forest land.

#### **A. Specific conditions**

- i. 13897 KLD water shall be drawn from Karo River 5.1 km away. No GW abstraction shall be permitted.
- ii. Monitoring of upstream and downstream river water quality shall be undertaken on quarterly basis and compliance status shall be furnished to the Regional Office of the MoEF&CC.
- iii. 550 KLD water presently drawn from Ground shall be discontinued in two years from the date of EC.
- iv. 455 KLD industrial effluent and 18 KLD domestic sewage shall be treated and recycled.
- v. Under the instant proposal three CAAQMS shall be installed and all these stations shall be located in consultation with the SPCB.
- vi. AQMS monitoring shall be done for all twelve pollutant parameters twice a year.
- vii. PGP shall be closed circuit type and phenolic water and tar sludge generated shall be treated.
- viii. No FeCr shall be manufactured in the proposed facility.
- ix. 100 % Solid waste generated shall be utilised.
- x. PM emissions from stacks shall be less than 30 mg/Nm<sup>3</sup>. Necessary retrofitting work shall be carried out in APCDs of old plant to reduce PM emissions to less than 30 mg/NM<sup>3</sup> within two years from the date of EC.
- xi. 80 to 85 % direct hot charging shall be done to conserve energy.
- xii. Route number 1 for transportation of solid waste to the storage site is not recommended due to its passage through a village.
- xiii. The road in Route No.2 being used for transportation of solid waste to the storage site shall be strengthened adequately to facilitate the material movement. Compliance status in this regard shall be reported to RO of MoEF&CC.
- xiv. PGP shall be closed circuit type and phenolic water and tar sludge generated shall be treated appropriately.
- xv. 100 % Solid waste generated shall be utilised.
- xvi. NOx Control system is provided in CPP.
- xvii. 100 % area of the plant shall be brought under rain water harvesting.

- xviii. Storage area for solid waste shall have impervious lining, garland drains , catch pits to trap run off material and water treatment facility. Temporary storage will not exceed 90 days in line with the HW rules, 2016.
- xix. Parking facility for 100 trucks has been included in the plant premises.
- xx. 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 which will be treated in the Effluent Treatment Plant.
- xxi. Govt. Of Odisha has allocated 6.72 cusec and 5.98 cusec of water from Karo river for Karakolha Steel plant and Karakhendra Steel plant respectively. The raw water shall be brought to the plant in separate pipe lines, treated in respective plants and distributed in the process. The treatment of water and sludge management shall be carried out by Karahola steel plant.

## **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 03 Nos. 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. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

- vi. 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.
- vii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- 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 install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31<sup>st</sup> March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30<sup>th</sup> May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7<sup>th</sup> 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 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. The project proponent shall provide the ETP to meet the standards prescribed in G.S.R 277 (E) dated 31<sup>st</sup> March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30<sup>th</sup> May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7<sup>th</sup> December 2015 (Thermal Power Plants) as amended from time to time.
- iv. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- v. 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.
- vi. Tyre washing facilities shall be provided at the entrance of the plant gates.
- vii. 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. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
- ii. Restrict Gas flaring to < 1%.
- iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- iv. Provide LED lights in their offices and residential areas.
- v. Ensure installation of regenerative type burners on all reheating furnaces.

**VI. Waste management**

- i. An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/l shall be installed to use slag as river sand in construction industry.
- ii. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.
- iii. Used refractories shall be recycled as far as possible.
- iv. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- v. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.
- vi. 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 by trees.

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

**IX. Corporate Environment Responsibility**

- 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 approved 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 report 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; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (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. 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.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. 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.
- xiv. 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.

32.10 Expansion of Karakhendra Steel Plant from 0.127 MTPA to 0.606 MTPA Crude Steel capacity with installation of 121 MW CPP by **M/s. Rungta Mines Limited** located at Karakhendra & Karakolha, **District Keonjhar, Odisha.** [Online Proposal No.

IA/OR/IND/201273/2016; File No. J-11011/230/2016-IA.II(I)] – **Environment Clearance – regarding**

32.10.1 M/s Rungta Mines Ltd. has made an online application vide proposal no. IA/OR/IND/201273/2016 dated 04/03/2021 along with copy of EIA/EMP report and Form-2 seeking Environmental Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (Ferrous & non-ferrous) & 4(b) Coke oven plants under Category “A” of the schedule of the EIA notification, 2006 and appraised at Central level.

**Details submitted by Project proponent**

32.10.2 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord
14/11/2019	13 <sup>th</sup> meeting of EAC held on 23-24 <sup>th</sup> Nov 2019	Terms of Reference	02/01/2020
15/06/2020	20 <sup>th</sup> meeting of EAC held on 25-26 <sup>th</sup> June 2020	Amendment TOR	13/07/2020

32.10.3 The project of M/s Rungta Mines Limited located in Karakhendra & Karakolha Village, Barbil Tehsil, Keonjhar District, Odisha State is for setting up Expansion of Karakhendra Steel Plant from 0.127 MTPA to 0.606 MTPA crude steel with installation of 121 MW Captive Power Plant.

32.10.4 Environmental Site Settings

S.No.	Particulars	Details
i.	Total land	55.646 ha [Private: 47.107 ha; Govt. 0.664 ha; Forest Land: 7.875 ha ]
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	(a) Acquired Land :7.875 ha (b) Land under acquisition :47.771 ha 118.041 acres (47.96 ha) - IPICOL had issued vide letter dated 07.03.2019. 10% deposit paid on 18.04.2019 and communicated vide letter dt. 18.04.2019.
iii.	Existence of habitation & involvement of R&R, if any.	No habitation in the proposed site. No R&R is involved
iv.	Latitude and Longitude of the project site.	<b>Plant &amp; Facilities:</b> <b>Latitude:</b> 22°07'57.13" to 22°08'28.71" N <b>Longitude:</b> 85°24'42.44" to 85°25'07.99" E <b>Waste disposal management area:</b> <b>Latitude:</b> 22°08'26.37" to 22°08'52.38" N <b>Longitude:</b> 85°24'53.08" to 85°25'11.12" E
v.	Elevation of the project site	450-469 m AMSL

S.No.	Particulars	Details
vi.	Involvement of Forest land if any.	7.875 ha land is under forest area for which an online application for forest clearance has been made vide online proposal no. FP/OR/IND/45851/2020
vii.	Water body exists within the project site as well as study area	<b>Project Site:</b> Nil <b>Study area:</b> Nearest stream is Betlata Nala at 2.5 km East and nearest river is Karo River at 4.7 km WNW.
viii.	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	Nil

32.10.5 The existing project was accorded environmental clearance vide letter no. J-11011/230/2016-IA.II(I) dated 07.08.2019. Consent to Establish vide OM no. 8262/IND-II-CTE-6338 dated 14.08.2019.

32.10.6 Implementation status of the existing EC:

Sl. No.	Plant Facilities	Units	Annual production as per EC dated 07/08/2019	Implementation status as on 10/03/2021	Production as per CTO
1	<b>Steel Melting Shop</b> 2 nos. X15T, LRF 1x20 T	TPA	126720	construction work completed	-
2	(Billets/ Bloom/ Slab) caster (2 strand)	TPA	124,186	construction work completed	-
3	Rolling Mill (flat/ round/ wire rod/ structural mill/ others)-1	TPA	121,702	construction work completed	-

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

Sl. No.	Plant Facilities	Units	Annual production		
			Present sanctioned capacity as per EC dated 07/08/2019	Expansion/ Additional facility as per TOR dt. 13/07/2020	Total
(a)	(b)		(c)	(d)	(c)+(d)
1.	Sponge Iron Plant		-		
	(i)1x600 TPD	TPA	-	308,850	308,850
	(ii)1x600 TPD	TPA	-	308,850	308,850

Sl. No.	Plant Facilities	Units	Annual production		
			Present sanctioned capacity as per EC dated 07/08/2019	Expansion/ Additional facility as per TOR dt. 13/07/2020	Total
(a)	(b)		(c)	(d)	(c)+(d)
	<b>Sub-Total</b>	<b>TPA</b>	-	<b>617,700</b>	<b>617,700</b>
2.	Pellet Plant	TPA	-	1,800,000	1,800,000
3.	Sinter plant (1x60 sq.mtr)	TPA	-	554,400	554,400
4.	Coke oven plant (4 batteriesx70,000 TPA)	TPA	-	280,000	280,000
5.	Blast furnace (1x380 cum)	TPA	-	372,400	372,400
6.	<b>Steel Melting Shop</b>				
6.1	(i) IF configuration	-	2 nos. X15T	5 nos. X 15T	7 nos. X15T
	(ii) LRF configuration	-	1 no. X 20T	3 nos. X 20T	4 nos. X 20T
6.2	IF-LRF production	TPA	126,720	479,655	606,375
6.3	CCM-1 (Billets/ Bloom/ Slab)	TPA	124,186 (1X2 Strand)	45,599 (1X1 Strand)	169,785 (1X3 Strand)
6.4	CCM-2 (Billets/ Bloom/ Slab)	TPA	-	424,463 (1X4 Strand)	424,463 (1X4 Strand)
	<b>Total (6.3+6.4)</b>	<b>TPA</b>	124,186	470,062	594,248
7	Rolling Mill (flat/ round/ wire rod/ structural mill/ others)				
7.1	Rolling Mill-1	TPA	121,702	93,898	215,600
7.2	Rolling Mill-1	TPA	-	366,713	366,713
	<b>Total (7.1+7.2)</b>	<b>TPA</b>	<b>121,702</b>	<b>460,611</b>	<b>582,313</b>
8	DI Pipe	TPA	-	84,000	84,000
9	Oxygen plant	TPD	-	120	120
10	CPP, Total	MW	-	121	121
10.1	WHRB based CPP	MW	-	68	68
10.2	AFBC/ CFBC based CPP	MW	-	53	53
10.3	TG	-	-	2X42 + 1X22 +1X15	2X42 + 1X22 +1X15
11	Producer Gas Plant	Nm <sup>3</sup> /hr	-	45,000	45,000

32.10.8 The details of the annual 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 required per annum			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Expansion	Total			
1	Iron Ore/ Fines/ concentrate	0	2,445,840	2,445,840	OMC/ other Pvt. Mines	40	Road
2	DRI	1,19,266	Less 119,266	0	Initially from Karakolha sponge iron unit, later in house	0.5	Road
3	Lime Stone	0	77,784	77,784	Rourkela/ Raigarh	120	Road
4	Dolomite	0	164,294	164,294	Rourkela/ Raigarh	120	Road
5	Bentonite	0	27,000	27,000	Rourkela/ Raigarh	120	Road
6	Coking Coal	0	378,000	378,000	Imported	370	Road
7	Quartz	0	19,365	19,365	Open market /Raigarh	350	Road
8	Coal & coal dust	0	1,020,054	1,020,054	Imported/ open market/ e auction	350	Road
9	Pig Iron / Hot metal from MBF	13,774	Less 13,774	0	Kamanda steel plant/ open market		Road
10	Steel Scrap	13,774	19,181	32,955	Open market	120	Road
11	Cement for own brick plant	0	9,808	9,808	from own plant proposed at Dhenkanal	120	Road
12	Fuel Oil	779	39,003	39,782	Open market	120	Road
	<b>Total</b>	<b>1,47,592</b>	<b>4,067,289</b>	<b>4,214,881</b>			

32.10.9 The water requirement for the project is estimated as 15,589 m<sup>3</sup>/day, which will be obtained from Ground and surface water. The permission for drawl of groundwater of 50 KLD water is obtained from CGWA vide letter no. 21-4/1439/OR/INd/2017-303 dated 28/08/2020 and Surface water of 5.98 cusec water is obtained from Irrigation Department vide Lr. No. 26308/WR, dated 21/11/2019.

32.10.10 The power requirement for the project is estimated as 128 MW, out of which 121 MW will be available from CPP and 7 MW from state electricity board grid.

32.10.11 Baseline Environmental Studies:

Period	01/03/2019 to 31/05/2019
AAQ parameters at 9 locations	PM <sub>2.5</sub> = 23.4 to 44.3 µg/m <sup>3</sup> PM <sub>10</sub> = 40.6 to 73.4 µg/m <sup>3</sup> SO <sub>2</sub> = <6.0 to 15.3 µg/m <sup>3</sup> NO <sub>2</sub> = 7.9 to 20.4 µg/m <sup>3</sup> CO = 0.12 to 0.788 mg/m <sup>3</sup>
AAQ modelling	PM <sub>10</sub> = 6.68 µg/m <sup>3</sup> SO <sub>2</sub> = 18.9 µg/m <sup>3</sup> NO <sub>x</sub> = 2.39 µg/m <sup>3</sup>
Ground water quality at 13 locations	pH: 6.6 to 7.5, Total Hardness: 44 to 316 mg/l, Chlorides: 7 to 79 mg/l, Fluoride: BDL to 0.22 mg/l. Heavy metals are within the limits.
Surface water quality at 12 locations	pH: 6.8 to 7.9; DO: 6.7 to 7.3 mg/l, BOD: 10 to 15 mg/l, COD from 14 to 32 mg/l
Noise levels	50.19 to 66.41 dB(A) for the day time and 36.50 to 65.22 dB(A) for the Night time.
Traffic assessment study Findings	The Integrated steel plant, therefore, will lead to nearly doubling of the the traffic volume of HMVs. The increase in traffic will be 17.4% of the maximum carrying capacity.
Flora and fauna	Three Schedule-I fauna i.e. sloth bear, elephant and Indian rock python are found within the study area. A “Site Specific Conservation Plan” has been prepared with respect to Karakhendra Steel Plant approved by PCCF (WLW) vide letter no - 5861/1WL-EC-industry-SSP-128/2018 dated 23/06/2018.

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

Sl. No.	Facility	Solid waste	Total	Management
1	Pellet Plant	Dust (Iron Ore, Coke, Coal Fines)	134,527	100% recirculated to mixing bin of the pellet plant
2	Sponge Iron Plant (DRI Plant)	Char	133,422	100% reused in CFBC boiler
		ESP dust	27,963	100% reused in sinter making
		Bag Filter Dust, scrapper etc.	9,099	100% reused in sinter making
		Kiln Accretion	3,708	100% stored in in land fill temporarily till reused in road sub-base
		Coal Fines from RM handling	27,797	100% Reused in CPP within project
3	SMS (IF-LRF-Caster)	BF dust/ Ferrous dust	14,050	100% reused in sinter making within project



Sl. No.	Facility	Solid waste	Total	Management
	Route)	Slag	122,504	100% given for metal recovery, converted to aggregates (special balls) and used in road making
	SMS (Caster)	Mill Scale	12,128	100% use/ sale to cement plant, useable in pellet making & sinter plant, LRF dephosphorisation process
4	Rolling Mill	Reject	5,371	100% reused in steel making within project
		Mill Scale	6,564	100% use/ sale to cement plant, useable in pellet making & sinter plant, LRF dephosphorisation process
5	Sinter Plant	Sinter Return Fines	138,600	100% reused in sinter making within project
6	Coke Oven Plant	Bag Filter Dust	11,340	100% reused in sinter making within project
7	Mini Blast Furnace	BF Slag	130,340	100% reutilised in making PBS cement within project
		Dust (Iron Ore, Coke, Sinter Fines)	7,448	100% reused in sinter making within project
		Sludge from GCP	1,862	100% eliminated after shifting to dry GCP
8	Ductile Pipe Plant	Reject	771	100% reused in steel making within project
		Mill Scale	943	100% use/ sale to cement plant, useable in pellet making & sinter plant, LRF dephosphorisation process
		Zinc recovered	Not estimated	100% sale to paint manufacturer
		Cement slurry	Not estimated	100% recover water & manufacture brick/ cement tiles
		Core sand (in casting area & annealing furnace)	Not estimated	100% used for land levelling
9	Producer gas plant	Coal Ash	29,904	100% reused as per MOEF Notification 2009. Used in cement making, brick making, block making and road making.
		Coal Tar	7,476	100% Sale

Sl. No.	Facility	Solid waste	Total	Management
10	Captive Power Plant (AFBC/CFBC)	Fly ash Generation	165,360	100% reused as per MOEF Notification 2009. Used in cement making, brick making, block making and road making.
		Bottom ash generation	41,340	
	Total Solid Waste		1,032,516	

32.10.13 Public Consultation:

Details of advertisement given	08/01/2021
Date of public consultation	11/02/2021
Venue	Khata No. 70/7, Plot no. 185, 185/703 & 703/980 (Near OPTCL LILO Switching Station) in village Karakhendra & Karakhola, Keonjhar
Presiding Officer	Dr. Uddhaba Chandra Majhi, Project Director, DRDA Shri Puskar Chandra Behera, Regional Officer, OSPCB
Major issues raised	i. Employment opportunity ii. Health care facility iii. Water supply iv. Road maintenance v. Pollution control measures

**Action plan as per MoEF&CC O.M. dated 30/9/2020**

Sl.	Activity requirement raised during public hearing		Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Agricultural yield improvement program	Target	Training program for 50 farmers in Karakhendra Village	Grant to trained farmers for agricultural activity in Karakhendra				
		Budget	100,000	150,000				250,000
2	Soil testing	Target	1 sample per trained farmer					
		Budget	150,000					150,000
3	6 bedded health centre in Karakhendra Steel Plant with full time doctor & other staff	Target	Building construction	Equipment and making operational	50% Running cost (1 doctor, 2 nurses, 1 compounder, 5 support staff, medicines & overheads)	50% Running cost (1 doctor, 2 nurses, 1 compounder, 5 support staff, medicines & overheads)	50% Running cost (1 doctor, 2 nurses, 1 compounder, 5 support staff, medicines & overheads)	
		Budget	2,000,000	1,500,000	1,740,000	1,740,000	1,740,000	8,720,000
4	Ambulance on call (already provided in Karakhendra)	Target	Running cost (driver, attendant, petrol, R&M)	Running cost (driver, attendant, petrol, R&M)	Running cost (driver, attendant, petrol, R&M)	Running cost (driver, attendant, petrol, R&M)	Running cost (driver, attendant, petrol, R&M)	
		Budget	420,000	420,000	420,000	420,000	420,000	2,100,000

Sl.	Activity requirement raised during public hearing		Year 1	Year 2	Year 3	Year 4	Year 5	Total
5	Training to local youth will be arranged by the company prior to recruitment with students from Karakhendra, Karakolha, Belkundi, Nalda, Dalki, Barajamda, etc.	Target	10 students to ITI	10 students to ITI	10 students to ITI	10 students to ITI	10 students to ITI	
		Budget	120,000	120,000	120,000	120,000	120,000	600,000
6	Develop one park / children/ provide mini stadium	Target			Annual maintenace/ upkeep cost of renovates playground in Karakolha	Annual maintenace/ upkeep cost of renovates playground in Karakolha	Upgrade facilities at play ground to mini stadium	
		Budget			20,000	20,000	100,000	140,000
7	Solar street lights	Target	20 lights in Karakhendra village				20 lights in Dalki village	
		Budget	160,000				240,000	400,000
8	Construction of drain along main arterial road of the village	Target	In Karakhendra (200 m)				In Dalki (240 m)	
		Budget	200,000				240,000	440,000
10	Distribution of plants to villagers annually (2,000 saplings are planned for distribution)	Target	In Karakhendra				In Dalki	
		Budget	100,000				100,000	200,000
11	Help the SHG groups, development and promotion of their business	Target	5 groups in Karakhendra				2 groups in Dalki	
		Budget	250,000				100,000	350,000
12	Repairing of roads inside village	Target	In Karakhendra (200 m)					
		Budget	2,000,000					2,000,000
13	Regular water sprinkling	Target	1 water tanker, driver, fuel	Operating cost	Operating cost	Operating cost	Operating cost	
		Budget	696,000	132,000	143,000	154,000	165,000	1,290,000
14	Drinking water (Provision of new borewell) and repairing of water pipe line using maintenance manpower from project	Target	In Karakhendra (1 Borewell)				In Dalki (1 Borewell)	
		Budget	60,000				60,000	120,000
15	Educational facilities of the children	Target	Books for 25 students in Karakolha Village	Books for 25 students in Karakhendra Village	Books for 25 students in Belkundi Village	Books for 25 students in Nalda Village	Books for 25 students in Dalki Village	
		Budget	25,000	25,000	25,000	25,000	25,000	125,000
17	Old age pension scheme for Sr. citizens from Karakhendra, Karakolha,	Target	15 persons	15 persons	15 persons	15 persons	15 persons	

Sl.	Activity requirement raised during public hearing		Year 1	Year 2	Year 3	Year 4	Year 5	Total
	Belkundi, Nalda, Dalki, Barajamda, etc.							
		<b>Budget</b>	90,000	90,000	90,000	90,000	90,000	450,000
18	College bus will also be provided	<b>Target</b>	Contractual Operation with driver, helper, petrol, R&M	Contractual Operation with driver, helper, petrol, R&M	Contractual Operation with driver, helper, petrol, R&M	Contractual Operation with driver, helper, petrol, R&M	Contractual Operation with driver, helper, petrol, R&M	
		<b>Budget</b>	516,000	546,000	576,000	600,000	660,000	2,898,000
	<b>GRAND TOTAL</b>		6,887,000	2,983,000	3,134,000	3,169,000	4,060,000	20,233,000

32.10.14 The capital cost of the expansion project is Rs 1898.69 Crores and the capital cost for environmental protection measures is proposed as Rs 22.42 Crores (for expansion). The annual recurring cost towards the environmental protection measures is proposed as Rs 5.48 Crores (for expansion). The employment generation from the proposed expansion is 1080. The details of cost for environmental protection measures is as follows:

Description	Capital cost (Rs. Lakhs)			Recurring cost (Rs. Lakhs)		
	Sanctioned as per ECs till day	Additional	Total	Sanctioned as per EC	Additional	Total
Air pollution control	85.00	1605	1690.00	27.77	339.73	367.5
Water pollution control	27.60	41.1	68.70	2.20	13.02	15.22
Noise pollution control	5.00	0	5.00	1.27	1.68	2.95
Env. Monitoring and management	145.10	116	261.10	28.68	41.73	70.41
Occupational health	2.00	86	88.00	2.57	20.33	22.90
Green belt	4.41	41.49	45.90	1.55	12.97	14.52
Others		7	7.00	2.60	7.7	10.30
Overheads (3% of dep., energy, R&M, etc)		0		9.58	1.52	11.10
Social & infrastructure development cost for PH commitment		76.56			33.13	
<b>Total</b>	<b>269.11</b>	<b>1973.15</b>	<b>2242.26</b>	<b>76.22</b>	<b>471.81</b>	<b>548.03</b>

32.10.15 Greenbelt will be developed in 18.363 ha which is about 33% of the total project area. A 3-5 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 45376 no. Of saplings will be planted and nurtured in 18.363 hectares in 5 years.

32.10.16 The proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

32.10.17 Name of the EIA consultant: The EIA report was originally prepared by the consultant namely Min Mec Consultancy Pvt. Ltd. and thereafter the report was revalidated by the M/s Centre for Envotech and Management Consultancy Pvt Limited [S.No. 91, List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021] as the former consultant was not accredited by the QCI/NABET.

### 32.10.18 Certified compliance report from Regional Office

The Status of compliance of earlier EC was obtained from Regional Office, Bhubaneswar vide letter no. 101/1001/17/EPE, dated 18/02/2021 in the name of M/s. Rungta Mines Ltd. The Action taken report regarding the partially complied condition was submitted to Regional officer MoEF&CC, vide letter no RML/KKSP-641/499/20-21 dated 10/03/2021. The details of the observations made by RO in the report dated 18.02.2021 along with its present status as furnished by the PP is given as below:

Sl.	Non-compliances details	Observation of RO (abridged)	Condition no.			Response by PP
			EC date	Specific	General	
1	CSR activity	It is recommended that PAs also take activities such as “procurement of ambulance fitted with necessary equipments for emergency health care and referential services, construction of village roads/culverts in villages Karakhendra, Karakolha, electricity provision in village, playground in villages Belkundi, Mahakud Basti, Karakolha, Mundasahi, Belkundi Talasaahi, Nalda Karakhendra and Uliburu.	15/01/2018	iii		Ambulance fitted with necessary equipment for emergency health care has already been provided  CC Road has been constructed from Magan Sahi Munda Basti to Magan Sahi end, Karakhendra Panchayat  Electricity provided in Karakhendra village  Playground had been developed in Belkundi Village  <b>updated Status : complied</b>
2	Green belt	PAs may inform the area wise plantation with area covered and details of plantation for last three years with species planted.		iv		Total plant area is 13.20 acres. The plantation is being being carried out in 33% of the area i.e. 4.356 acres. The plantation is being with done local species in three rows. Species planted are Neem, Mango, Siris, Jamun, Champa & Sagan <b>Updated Status : complied</b>
3	Monitoring	PAs may inform the expenditure earmarked towards environmental protection measures and implementation plan		v		Capital (269.11 lakhs) and recurring cost (76.22 lakhs) earmarked for EMP  <b>Updated Status : complied</b>
4	Statuary clearance	As per NOC from CGWA, the NOC is valid from 19.06.2018 to 18.06.2020. PAs may			17	Renewed NOC has already been obtained from CGWA vide Letter No. CGWA/NOC/IND/REN/1/2021/5857

		inform whether they have applied for renewal for their NOC and intimate about the status of the same.				<b>Updated Status : complied</b>
5	Monitoring	PAs do not have any display board for disclosure to the public			23 v	Display board has already installed in front of the Main Gate of the plant  <b>Updated Status : complied</b>
6	Monitoring	PAs have not informed the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work			23 viii	This project is 100% self-financed and therefore no loan has been taken from the banks. Thus, financial closure and financial approval from any authorities is not required. Further, we wish to submit that construction work has been started on 01.04.2018 and shall be completed by 31.03.2021.

32.10.19PP has submitted written clarifications on the following points during the course of meeting:

**Number of days of operation of the plant**

**Response.** PP clarified that the number of days the plant will operate for 355 days.

**Whether truck parking can be provide in project for around 100 trucks.**

**Response.** Truck parking will be provided for 150 trucks in multiple locations within the project.

**The combined commitment of activities and budget for public hearing points should be bifurcated for Karakolha and Karakhendra plants.**

**Response.** The combined budget and the activities for public hearing points have been bifurcated and submitted for Karakolha and Karakhendra plants.

**Updated EMP cost to include the cost of the social and infrastructure activities in compliance to public hearing.**

**Response.** The updated EMP cost has been submitted.

**Details of pipeline from Karo River, responsibility for its water treatment and management of sludge**

**Response.** Department of Water Resources, Govt. Of Odisha has allocated 6.72 cusec and 5.98 cusec of water from Karo river for Karakolha Steel plant and Karakhendra Steel plant of M/s Rungta Mines Ltd. respectively.

The water will be withdrawn from the river through a channel to the proposed intake well. From there the water will be drawn through two separate pipes with pumps (P1 + P1 standby and P2 + P2 standby) designated for Karakolha Steel Plant and Karakhendra Steel plant. Both pipelines will fitted with flow meters (FM1, FM2) through which monitoring of water withdrawal for the two projects shall be carried out individually for water billing purposes. The

pumped water, after passing through the flow meters will be sent to the intermediate tank for settlement of solids. The water from the intermediate tank will be treated and pumped (P3 and P3 standby) through a single pipeline to Karakolha Steel Plant and Karakhendra Steel Plant. This single pipeline will bifurcate near the plants. Again two flow meters (FM) will be installed at the delivery points of each plant for self-monitoring. The water will be received in the reservoir of the respective projects and used directly where required. The respective projects will also have individual treatment facilities such as demineralisation plant and drinking water treatment plant, separately. We have dedicated solid waste management areas in both plants where the dewatered sludge shall be stored in line with CPCBs guidelines for secured landfills.

### **Observations of the Committee**

32.10.20 The EAC noted the following:

- i. The EAC found that the EIA/EMP report is in order reflecting the present environmental concerns and the projected scenario for all the environmental components arising out of the proposed project with respective mitigation measures. The EAC also noted that the baseline data reported and incremental GLC due to the proposed project were within NAAQ standards.
- ii. The EAC also deliberated on the public hearing issues as well as action plan to address the issues raised during public hearing and found it satisfactory.
- iii. The Committee also deliberated upon the certified compliance report of RO and found satisfied with the action taken report submitted by the proponent.
- iv. The EAC noted that the written submissions made by the project proponent during the course of meeting are addressing the concerns of the Committee and acceded to the same.
- v. Stage I forest clearance for diversion of 7.87 ha forest land is still under process with the concerned State Government.

### **Recommendations of the Committee**

32.10.21 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 for the instant expansion proposal subject to the stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 pertaining to integrated steel plants based on project specific requirements. The said recommendations are subjected to the submission of stage I forestry clearance as per the MoEF&CC O.M. dated 09/09/2011, 18/05/2012 and 19/06/2014 pertaining to grant of EC which involves forest land.

#### **A. Specific conditions**

- i. 15589 KLD water shall be drawn from Karo River 4.7 km from site. No ground water abstraction is permitted.
- ii. 45.376 ha land shall be brought under green belt development.
- iii. 100 % solid waste utilization shall be carried out.
- iv. Under the instant proposal two CAAQMS shall be installed and all these stations shall be located in consultation with the SPCB.

- v. AQMS monitoring shall be done for all twelve pollutant parameters twice a year.
- vi. Route number 1 for transportation of solid waste to the storage site is not recommended due to its passage through a village.
- vii. The road in Route No.2 being used for transportation of solid waste to the storage site shall be strengthened adequately to facilitate the material movement. Compliance status in this regard shall be reported to RO of MoEF&CC.
- viii. PGP shall be closed circuit type and phenolic water and tar sludge generated shall be treated appropriately.
- ix. Modified wet quenching shall be installed in Coke Oven plant.
- x. Sinter cooler waste heat recovery system shall be installed.
- xi. Dry gas cooling shall be installed for Blast Furnace. TRT installation for 380 m<sup>3</sup> furnace shall be explored during detailed engineering.
- xii. DI plant shall have the following provisions;
  - a. Wet scrubbers for VOC in Annealing furnace.
  - b. BF for Zn coating and Mg converter area.
  - c. Wet scrubbers in paint and bitumen coating area.
  - d. BF in Cement lining area.
  - e. PTFE dipped bag s shall be used in the plant.
- xiii. PM emissions from BF in Zinc coating area shall be 5 mg/Nm<sup>3</sup>.
- xiv. ETP with recycling facility shall be included. All scrubber effluent shall be treated in ETP.
- xv. PM level from stacks other than Zinc BF, shall be less than 30 mg/Nm<sup>3</sup>.
- xvi. Hot charging up to 85 % shall be practiced.
- xvii. Land based pushing emission control shall be provided in coke ovens.
- xviii. A brick manufacturing plant to make 2500 bricks per hour shall be installed.
- xix. NOx Control system is provided in CPP.
- xx. 100 % area of the plant shall be brought under rain water harvesting.
- xxi. Storage area for solid waste shall have impervious lining, garland drains , catch pits to trap run off material and water treatment facility. Temporary storage will not exceed 90 days in line with the HW rules, 2016.
- xxii. Extensive RWH shall be practiced.
- xxiii. Govt. Of Odisha has allocated 6.72 cusec and 5.98 cusec of water from Karo river for Karakolha Steel plant and Karakhendra Steel plant respectively. The raw water shall be brought to the plant in separate pipe lines, treated in respective plants and distributed in the process. The treatment of water and sludge management shall be carried out by Karahola steel plant.

## **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 02 Nos. 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. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.
- 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. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- vii. 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.
- viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- ix. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).
- x. Land-based APC system shall be installed to control coke pushing emissions.
- xi. Monitor CO, HC and O<sub>2</sub> in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.
- xii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

- xiii. 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 31<sup>st</sup> March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30<sup>th</sup> May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7<sup>th</sup> 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 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. The project proponent shall provide the ETP to meet the standards prescribed in G.S.R 277 (E) dated 31<sup>st</sup> March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30<sup>th</sup> May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7<sup>th</sup> December 2015 (Thermal Power Plants) as amended from time to time.
- iv. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- v. 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.
- vi. Tyre washing facilities shall be provided at the entrance of the plant gates.
- vii. 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. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
- ii. Restrict Gas flaring to < 1%.

- iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- iv. Provide LED lights in their offices and residential areas.
- v. Ensure installation of regenerative type burners on all reheating furnaces.

#### **VI. Waste management**

- i. An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/l shall be installed to use slag as river sand in construction industry.
- ii. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.
- iii. Used refractories shall be recycled as far as possible.
- iv. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- v. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.
- vi. 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 by trees.

#### **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 of Factory Act.
- iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

## **IX. Corporate Environment Responsibility**

- 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 approved 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 report 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 environmental 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; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (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. 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.
  - xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
  - xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
  - xiii. 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.
  - xiv. 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.
- 32.11 Enhancement in production of existing sponge iron Plant capacity from 60,000 TPA to 2,70,000 TPA, Production of 135000 TPA Steel Billets, 120,000 TPA TMT Bars, Production of 26 MW power through WHRB (16MW) and AFBC (10MW) Route and Production of 30 million Fly Ash Bricks per annum by **M/s Shree Hari Sponge Private Limited** located at Village-Kendrikela, Tehsil- Bonai, **District-Sundergarh, Odisha**. [Online Proposal No. IA/OR/IND/103521/2019; File No. J-11011/186/2019-IA II (I)] – **Environment Clearance** – regarding.
- 32.11.1 The project proponent vide email dated 15/03/2021 expressed their inability to participate in the meeting and requested to reschedule the proposal in upcoming EAC meeting.
- 32.11.2 In view of the foregoing, the Committee was of the considered view that presence of PP in the instant proposal is essential in order to take appropriate view on the proposal under consideration. After deliberations, the Committee recommended that the proposal shall be listed for consideration in the forthcoming EAC meeting.
- 32.12 Expansion of Steel Plant — New Induction Furnace with Rolling Mill (Hot Charging) (Structural Steel & Rolled products 3.00.00) TPA), Rolling Mill (Structural Steel & Rolled products - 1,20,000 TPA to 2,40,000) TPA) & Wire Drawing (60,000 TPA to 120,000 TPA)

by **M/s. Hira Steels Limited** located at Rawabhata Industrial Area, Tehsil & **District: Raipur, Chhattisgarh**. [Online Proposal No. IA/CG/IND/197226/2021; File No. J-11011/210/2020-IA.II(I)] – **Amendment in Environment Clearance – regarding**

32.12.1 M/s. Hira Steels Limited has made an online application vide proposal no. IA/CG/IND/197226/2021 dated 23/02/2021 in prescribed Form – 4 along with other documents to seek amendment in the Environmental Clearance (EC) letter dated 01/12/2020.

**Details submitted by project proponent**

32.12.2 EC was granted to M/s. Hira Steels Limited vide letter No. J-11011/210/2020-IA.II-(I) dated 01/12/2020 for Expansion of Steel Plant – New Induction Furnace with Rolling Mill (Hot Charging) (Structural Steel & Rolled products 3,00,000 TPA), Rolling Mill (Structural Steel & Rolled products – 1,20,000 TPA to 2,40,000 TPA) & Wire Drawing (60,000 TPA to 1,20,000 TPA) located at Rawabhata Industrial Area, Tehsil & District: Raipur, Chhattisgarh.

32.12.3 The project proponent has sought amendment in specific condition no. ii of the aforementioned EC which is as follows:

*“90% hot charging shall be practiced in the plant and balance 10% shall be through RH Furnace which shall operate on LDO. Gasifier shall be phased on latest by December, 2022.”*

32.12.4 In reference to above condition the project proponent has submitted that there is no generation of Phenolic Water and Tar from existing hot gasifier and replacement of existing hot gasifier by LDO Burner will have additional operational cost impact of Rs.1500/- (Rupees One Thousand Five Hundred Only) per ton of finished product. Therefore, replacement of Gasifier by LDO Burner is economically not feasible. Therefore, the project proponent has sought amendment in the specific condition no. ii in the aforementioned EC dated 01/12/2020.

32.12.5 The proposal was considered by the EAC (Industry 1) in its 32<sup>nd</sup> meeting of the Re-constituted EAC (Industry-I) held on 15<sup>th</sup>-17<sup>th</sup> March, 2021. The observations and recommendations of EAC is given as below:

**Observations of the Committee**

32.12.6 The EAC noted the following:

- i. As per the earlier stand of PP, there is a generation of phenolic wastewater and tar from Producer Gas Plant which is being sent to the neighbouring unit for further treatment and utilization. In light of this, during appraisal process, EAC recommended that PP shall adopt 95% hot charging and remaining 5 % shall be met through LDO. Further, recommended to phase out the PGP by Dec 2022. To this effect, PP also submitted an undertaking to the Ministry on 29/10/2020. Accordingly, EC was accorded to the Unit by MoEF&CC on 1/12/2020.
- ii. In the instant proposal, PP claimed that there is no generation of phenolic wastewater and tar from PGP and requested to modify the specific conditions pertaining to hot charging and permission to continue the operation PGP beyond Dec, 2022. However, no documentary evidence inter-alia any documentary evidence for technological upgradation of existing PGP has been submitted by the PP to substantiate their claim.

### Recommendations of the Committee

32.12.7 In view of the foregoing and after detailed deliberations, the committee recommended that the PP should submit documentary evidence *inter-alia* any documentary evidence for technological upgradation of existing PGP leading to now non-generation of phenolic wastewater and tar. Therefore, for want of sufficient documentary evidence, the proposal is returned in its present form to address the aforesaid issue.

32.13 Green Field Project of Iron Ore Pellet plant – 3 x 225 = 675 TPD, Sponge Iron – 3 x 150 = 450 TPD, Billets (IF) – 1 x 30 = 30 TH and Captive power generation (Waste Heat Recovery from DRI Kiln) - 3 x 4 = 12 MW by **M/s. Vinayak Metal and Power Pvt. Ltd** at Sy.No. 866, 868, 870 – 873, Akkenapally Village, Narketpally Mandal, **Nalgonda District, Telangana State** [Online Proposal No. IA/TG/IND/199603/2021; File No. IA-J-11011/78/2021-IA-II(I)] – **Prescribing of Terms of Reference – regarding.**

32.13.1 M/s. Vinayak Metal and Power Pvt. Ltd has made an application online vide proposal no. IA/TG/IND/199603/2021 dated 06/03/2021 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) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

### Details submitted by Project proponent

32.13.2 The project of M/s Vinayak Metal and Power Pvt. Ltd located at Sy. No. 866, 868, 870 – 873, Akkenapally Village, Narketpally Mandal, Nalgonda District, Telangana State is for setting up of a new Sponge Iron plant with Pellet plant, MS Billets (IF) and Captive Power generation by utilizing the Waste Heat Recovery from DRI Kiln for production of 0.022 mTPA of Pellization plant, Sponge Iron – 3 x 150 = 450 TPD DRI Kilns to produce Sponge Iron of 148500 TPA, Induction Furnace of 1 x 30 = 30 T to produce M.S. Billets of 99000 TPA and Captive power generation through WHRB (Waste Heat Recovery from DRI Kilns) - 3 x 4 = 12 MW plant.

32.13.3 Environmental site settings

S.No.	Particulars	Details
i.	Total land	19.68 ha (Private: 19.68 ha), Land is already in possession of the management. Land use: Un-irrigated single crop rainfed Agriculture Land
ii.	Existence of habitation & involvement of R&R, if any.	No Rehabilitation and resettlement (R&R) are required as the proposed project site is not having any habitations.
iii.	Latitude and Longitude of the project site	Latitude: 17°17'12.79"– 17°17'34.14" N Longitude: 79°12'54.80" - 79°13'12.35" E
iv.	Elevation of the project site	292-302 m MSL
v.	Involvement of Forest land if any	No forest Land involved,
vi.	Water body exists within the project site as well as	<b>Project Site:</b> No water body involved. <b>Study area</b>

S.No.	Particulars	Details	
		Water body	Distance, km
	study area	Asif Nehar canal– North direction	1.2
		Musi River – Northwest direction	7.4
vii.		Existence of ESZ/ESA/national park/wildlife sanctuary / biosphere reserve / tiger reserve / elephant reserve etc. if any within the study area	Nil.

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

S. No	Production Unit	Product	Plant Configuration	Production Capacity
1.	Pellet Plant	Pellets	3 x 225 TPD	222750 TPA
2.	DRI Kilns	Sponge Iron	3 x 150 TPD	148500 TPA
3.	Induction Furnace	MS Billets	Induction Furnace: 1 x 30 TH	99000 TPA
<b>Power Plant</b>				
4.	WHRB	Electricity	1 x 12 MW	12 MW
<b>* Waste heat recovery Boiler (WHRB), TH – Tons for heat, TPD- Tons per day.</b>				

32.13.5 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.	Description	Quantity, TPA	Source	Distance from site (Km)	Mode of Transportation
1.	Iron Ore / Iron Oxides	2,45,025	From local Mine leases	<500	By Road (Covered Trucks)
2.	Iron ore Pellets	2,22,750	In plant generation	-	By Covered Conveyor
3.	Bentonite	17,820	Rajasthan / Gujarat	1000	By rail & road (through covered trucks)
4.	Sponge Iron	1,48,500	In plant generation	-	By Conveyor
5.	Coal	1,67,062	Imported coal,	250	Through sea route, rail route & by road (through covered trucks)
6.	Limestone	14,850	From local Mine leases	<100	By Road (Covered Trucks)



- 32.13.6 The water requirement for the project is estimated as 430 KLD, out of which 403 KLD of fresh water requirement will be obtained from the Ground water and the remaining requirement of 27 KLD will be met from the recycled water in ZLD system. The permission for drawl of Ground water from CGWA/SWGA will be obtained. The effluent generated from Pellet plant, DRI kilns units will be recycled with closed loop cooling water system. Sanitary wastewater / sewage generated will be treated in STP. Zero Liquid effluent discharge system will be maintained in the proposed project.
- 32.13.7 The power requirement for the proposed project will be about 18.0 MW, out of which 12 MW will be obtained from the Captive Power plant (i.e 3 x 4 MW WHRB) and remaining 6 MW power will be sourced from TSTRANCSCO. 3x750 KVA DG sets will be installed to meet the emergency power requirement:
- 32.13.8 The capital cost of the project is Rs. 130 Crores and the capital cost for environmental protection measures is proposed as Rs.15.53 Crores. The employment generation from the proposed project is 250 through direct employment and 150 nos. through indirect employment.
- 32.13.9 The project proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.
- 32.13.10 Name of the EIA consultant: M/s Team Labs and Consultants, Hyderabad [S.No. 139, List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021]
- 32.13.11 Proposed Terms of Reference (Baseline data collection period: March – May 2021).

Attributes	Sampling		Remarks
	No. of stations	Frequency	
A. Air			
a. Meteorological parameters	1	On hourly basis for one season	<ul style="list-style-type: none"> <li>• Wind speed,</li> <li>• Wind direction,</li> <li>• Temperature,</li> <li>• Relative Humidity,</li> <li>• Pressure,</li> <li>• Solar radiation,</li> <li>• Cloud cover,</li> <li>• Rainfall, etc</li> </ul>
b. AAQ parameters	8	24 hourly Twice a week for One Season	<ul style="list-style-type: none"> <li>• Particulate Matter (PM<sub>10</sub>, PM<sub>2.5</sub>),</li> <li>• Sulphur Dioxide (SO<sub>2</sub>),</li> <li>• Oxides of Nitrogen (NO<sub>2</sub>)</li> <li>• Carbon Monoxide (CO) etc.</li> </ul>
B. Noise	8	On hourly basis for 24 Hrs. at each station	Parameters Monitored: <ul style="list-style-type: none"> <li>• Day equivalent</li> <li>• Night equivalent</li> </ul>

Attributes	Sampling		Remarks
	No. of stations	Frequency	
C. Water			
a. Surface water	5	One sample at each of the locations	Parameters Monitored: as per IS: 2296
b. Ground water	8	One sample at each of the locations	Parameters Monitored: as per IS: 10500
D. Land			
a. Soil quality	8	One sample at each of the locations	Parameters Monitored: Texture, infiltration rate, Porosity, SAR, bulk density, pH, Ca, Mg, Na, K, Zn, Mn
b. Land Use	Study area		LU map will be prepared
E. Biological	Study area	One season	
a. Aquatic			
b. Terrestrial			
F. Socio-economic parameters	Study area	One season	Socioeconomic impacts

32.13.12 The proposal was considered by the EAC (Industry 1) in its 32<sup>nd</sup> meeting of the Re-constituted EAC (Industry-I) held on 15<sup>th</sup>-17<sup>th</sup> March, 2021. The observations and recommendations of EAC is given as below.

#### Observations of the Committee

32.13.13 The EAC noted the following:

- i. Form I has been filled with generic information and no project specific quantities have been provided and as such no inference could be drawn for taking decision on grant of ToR.
- ii. Action plan for dolochar utilization from DRI unit has not been furnished.
- iii. Diversion plan for the road passing through the plant has not been furnished.

#### Recommendations of the Committee

32.13.14 In view of the foregoing and after detailed deliberations, the committee recommended to the return the proposal in its present form to address the shortcomings as enumerated above.

32.14 Expansion in Chanderiya Lead Zinc Smelter [Pyro Metallurgical Smelter: Change in Product Mix on total metal basis as 140,000 TPA (Refined Lead or Refined Zinc or Product Mix of both Metal), Installation of 1 Lead Refinery (100 KTA) and three additional DG Sets of 1500 KVA, 625 KVA & 750 KVA; Hydro Metallurgical Smelter: 630000 MTPA. [Increasing the Capacity from 504000 MTPA to 630000 MTPA through expansion in Melting and casting section by adding 1 induction furnace (24 TPH) and 1 slab casting line (175000 MTPA)] and additional One DG set of 750 KVA; Captive Power Plant: Unit 1&2 from 154 MW (2X77 MW) to 190 MW (2X95MW) and no Change in Unit 3 (100 MW) CPP ; Minor Metals Unit with Copper, Cadmium, Cobalt, Nickel etc., by **M/s. Hindustan Zinc Limited** at villages: Putholi, Ajoliya Ka Khera & Biliya, Tehsil: Gangrar & Chittorgarh, **District: Chittorgarh,**

**Rajasthan** [Online Proposal No. IA/RJ/IND/192897/2021; File No. J-11011/279/2015-IA.II(I)] – **Prescribing of Terms of Reference – regarding.**

32.14.1 M/s. Hindustan Zinc Limited has made an application online vide proposal no. IA/RJ/IND/192897/2021 dated 05/03/2021 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) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

**Details submitted by Project proponent**

32.14.2 The project of M/s. Hindustan Zinc Limited located in Putholi, Ajoliya Ka Khera & Biliya Villages, Gangrar & Chittorgarh Tehsil, Chittorgarh District, Rajasthan State is for Expansion in existing Chanderiya Lead Zinc Smelter Complex [Pyro Metallurgical Smelter: Change in Product Mix on total metal basis as 140,000 TPA (Refined Lead or Refined Zinc or Product Mix of both Metal), Installation of 1 Lead Refinery (100 KTA) and three additional DG Sets of 1500 KVA, 625 KVA & 750 KVA; Hydro Metallurgical Smelter: 630000 MTPA. [Increasing the Capacity from 504000 MTPA to 630000 MTPA through expansion in Melting and casting section by adding 1 induction furnace (24 TPH) and 1 slab casting line (175000 MTPA)] and additional One DG set of 750 KVA; Captive Power Plant: Unit 1&2 from 154 MW (2X77 MW) to 190 MW (2X95MW) and no Change in Unit 3 (100 MW) CPP; Minor Metals Unit with Copper, Cadmium, Cobalt, Nickel etc.

32.14.3 Environmental site settings

S No.	Particulars	Details								
i.	Total land	335.89 ha The present land use of the plant site is industrial & will remain the same after proposed expansion.								
ii.	Existence of habitation & involvement of R&R, if any.	No and R&R is not applicable								
iii.	Latitude and Longitude of the project site	Chanderiya Lead Zinc Smelter <table border="1"> <tr> <td>A</td> <td>24°57'21.29"N, 74°38'34.39"E</td> </tr> <tr> <td>B</td> <td>24°58'21.03"N, 74°40'43.43"E</td> </tr> <tr> <td>C</td> <td>24°57'20.33"N, 74°38'37.46"E</td> </tr> <tr> <td>D</td> <td>24°58'35.69"N, 74°39'16.22"E</td> </tr> </table>	A	24°57'21.29"N, 74°38'34.39"E	B	24°58'21.03"N, 74°40'43.43"E	C	24°57'20.33"N, 74°38'37.46"E	D	24°58'35.69"N, 74°39'16.22"E
A	24°57'21.29"N, 74°38'34.39"E									
B	24°58'21.03"N, 74°40'43.43"E									
C	24°57'20.33"N, 74°38'37.46"E									
D	24°58'35.69"N, 74°39'16.22"E									
iv.	Elevation of the project site	154 m – 175m								
v.	Involvement of Forest land if any.	Nil								
vi.	Water body exists within the project site as well as study area	<ul style="list-style-type: none"> <li>• Putholi Nala (Passing through the Plant site)</li> <li>• Berach River (Adjacent in East direction)</li> <li>• Gambhir Nadi (3.5 km in SSW direction)</li> <li>• Nagdika Nala (8.5 km in NNE direction)</li> <li>• Canal (8 km in WNW direction)</li> </ul>								
vii.	Existence of ESZ/ESA/national park/wildlife	Nil								

S No.	Particulars	Details
	sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	

32.14.4 The existing project was accorded Concurrence letter initially for Pyro Plant vide no. J-11013/29/92-EI dated 03/06/1983; Production capacity of Pyro Plant was increased from 105000 TPA (Zn - 70,000 TPA + Pb – 35,000 TPA) to 140000 TPA (Zn – 105000 TPA + Pb - 35000 TPA) vide NOC obtained from RSPCB vide no. F.12 (Chittor-60)RPCB/Gr. III/19418 dated 05/03/2004. The Environmental Clearance for {Hydro Plant } Zinc Smelter I (1,70,000 Zinc Production) & CPP (154MW) vide F.No.J-11011/158/2003-IA.II(I) 31/03/2004; The Environmental Clearance for Ausmelt Lead Smelter Plant (60,000 TPA) vide F.No.J-11011/17/2005-IA.II (I) 3/8/2005; The Environmental Clearance for {Hydro Plant } Zinc Smelter II (2,10000 TPA) and expansion of {Hydro Plant } Zinc Smelter I (From 1,70,000 TPA to 2,10,000 TPA) vide vide no J-11011/279/2006-IA.II(I) dated 06/12/2006; The Environmental Clearance for Inclusion of Fumer Plant within the {Hydro Plant } Zinc Smelter II vide F.No.J-11011/279/2006-IA.II(I) 5/10/2015; The Environment Clearance for Capacity Expansion in Hydro I & Hydro II Zinc Smelters (from 4,20,000 TPA to 5,04,000 TPA) through debottlenecking vide letter no. J-11011/279/2006-IA.II (I) dated 14/10/2020.

32.14.5 CTO for Pyro Plant was accorded by Rajasthan State Pollution Control Board (RSPCB) vide Order no. 2020-2021 / HDF /3070 dated 08/06/2020 (valid upto 29/02/2024). CTO for Hydro –I Plant and CPP (154 MW) was accorded by RSPCB vide Order No. 2019-2020/HDF/2859 dated 16/01/2020 (valid upto 31/08/2023). CTO for Hydro– II Plant & CPP (100 MW) was accorded by RSPCB vide Order no. 2019-2020/HDF/2818 dated 18/12/2019 (valid upto 31/01/2024). CTO for Fumer Plant within existing Hydro -II plant was accorded by RSPCB vide Order no. 2020-2021/HDF/3009 dated 08/05/2020 (valid upto 31/03/2025). CTO for Ausmelt Lead Plant was accorded from RSPCB vide Order no. 2020-2021/HDF/3069 dated 05/06/2020 (valid upto 31/08/2023). CTO for installation of 2 D.G. Sets (2 x 8MW) was obtained from RSPCB vide Order no. 2016-2017 / CPM / 4789 dated 23/02/2017 (valid up to 30/04/2019). CTO for Township was obtained vide Order no. 2018-2019/CPM/5201 dated 23/05/2018.

32.14.6 Implementation status of the existing EC:

S. No.	Facilities	Unit	As per existing ECs	Implementation status as on 31/12/2020	Production as per CTOs
<b>A. Lead Zinc Smelter Plant (Pyro Plant)</b>					
1.	Refined Lead	TPA	35,000	35,000	35,000
2.	Refined Zinc	TPA	105,000	105,000	105,000
	Total	TPA	140,000	140,000	140,000
3.	Captive Power Plant	MW	90	<b>Not installed</b>	<b>NA</b>
<b>B. Hydro-I + Hydro-II (Incl. Fumer plant)</b>					

S. No.	Facilities	Unit	As per existing ECs	Implementation status as on 31/12/2020	Production as per CTOs
4.	Zinc (Hydro- I + II) / Zinc Alloys and its Compounds	TPA	5,04,000	5,04,000	5,04,000
5.	Captive Power Plant with Hydro- I	MW	154 (2x77)	154 (2x77)	154 (2x77)
6.	Captive Power Plant with Hydro- II	MW	100	100	100
7.	WHRB	MWH	34.7 (9.4) (4.3) (21)	34.7 (9.4) (4.3) (21)	34.7 (9.4) (4.3) (21)
<b>C. Ausmelt Lead Smelter Plant</b>					
8.	Lead	TPA	60, 000	60, 000	60, 000

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

S. No.	Products	Unit	Production capacity										Remarks
			Existing granted					Total after expansion					
			Pyro Plant	Hydro – I	Hydro – II	Ausmelt Plant	Total	Pyro Plant	Hydro – I	Hydro – II	Ausmelt Plant	Total	
<b>Products</b>													
1.	Refined Lead/Lead	TPA	35,000	-	-	60,000	95,000	140,000	-	-	60,000	2,00,000	Additional melting capacity by adding 1 furnace and 1 slab casting line in Hydro I and Max. Production achieved in Pyro will be 1,40,000 TPA
2.	Refined Zinc/Zinc	TPA	105,000	5,04,000		-	6,09,000		6,30,000	-	7,70,000		
3.	Total	TPA	140,000	5,04,000		60,000	7,04,000		140,000	6,30,000	60,000	8,30,000	
<b>Power</b>													
4.	CPP	MW	90#	154	100	NIL	254	90#	190	100	NIL	290	#Not Installed
5.	WHRB	MW	Nil	9.4	4.3 21	Nil	34.7	Nil	9.4	5.3 21	Nil	35.7	No Change
6.	DG Sets	KVA	NIL	1 x 750 1 x 1000	1 x 625 2 x 1250 1 x 125 2 x 9265	NIL	23530	1 x 625 1 x 1500 1 x 750	1 x 750 1 x 1000	1 x 625 2 x 1250 1 x 125 2 x 9265 1 x 750	NIL	27155	4 additional DG proposed
<b>By Products</b>													
7.	Sulphuric Acid	TPA	176,000	307774	307774	50500	8,42,048	223505	307774	307774	50500	8,89,553	Increase in acid production in Pyro

8.	Zn-Cd Alloy /Cadmium Metal/Cadmium Sponge (on equivalent cadmium basis) (By-product)	TPA	375	680	680	NIL	1,735	574	680	680	NIL	1,934	
9.	Copper Matte / Cu residue/ Copper cement / Copper Compounds / Copper (on equivalent copper basis)	TPA	2100	510	510	Nil	3120	3338	510	510	Nil	4,358	-
10.	Copper Sulphate (By-product)		Nil	Nil	Nil	7920	7920	Nil	Nil	Nil	7920	7,920	
11.	Silver/ High Grade Metal (HGM)/ Anode Slime (on equivalent silver basis) (By-product)	TPA	74	NIL	NIL	94.71	168.71	802.29	NIL	NIL	94.71	897	-
12.	Antimony Slag / Antimony Compounds/ Antimony Trioxide( Sb2O3) (on equivalent Antimony basis)	TPA	NIL	NIL	NIL	NIL	NIL	992	NIL	NIL	NIL	992	-
13.	Zinc Rich dust	TPA	NIL	NIL	NIL	6600	6600	NIL	NIL	NIL	6600	6600	-
14.	Calomel/ Mercury Chloride/ Mercury Compounds (By-Product)	TPA	NIL	20	20	NIL	40	14.8	20	20	NIL	54.8	-
15.	Low Grade Lead Concentrate /	TPA	NIL	30,000	NIL	NIL	30,000	NIL	30,000	NIL	NIL	30,000	-
16.	Lead Silver Cake	TPA	NIL	NIL	16,000	NIL	16,000	NIL	NIL	32000	NIL	32000	-
17.	Copper Speiss/ Copper Residue (By-product)	TPA	NIL	NIL	700	NIL	700	NIL	NIL	1200	NIL	1200	
18.	Lead Oxide / Concentrate	TPA	NIL	NIL	NIL	NIL	NIL	20000	NIL	NIL	NIL	20000	
19.	Sodium Chloride	TPA	NIL	250	250	NIL	500	NIL	250	250	NIL	500	
20.	Sodium Sulphate	TPA	NIL	1250	1250	NIL	2500	NIL	1250	1250	NIL	2500	-
21.	Zinc Sulphate (Crystalline)	TPA	NIL	NIL	NIL	NIL	NIL	NIL	2400	2400	NIL	4800	
<b>Minor Metal Unit</b>													
22.	Lead Bullion/(Lead Cake/Low Grade Lead/Lead Silver cake (On eq Metal Basis)	TPA	NIL	NIL	NIL	NIL	NIL	NIL	79.2	79.2	8578	8736.4	The products of the Minor Metal Complex will be reprocessed at Chanderiya Lead Zinc Complex in Pyro and Hydro Metallurgical Smelter Unit without increasing overall Metal capacity proposed herewith in this proposal. Thus overall reducing the Waste generation and disposal.
23.	CUSO4 Solution/ Copper Slag /Copper Cement /Copper Compounds (On eq Metal Basis)	TPA	NIL	NIL	NIL	NIL	NIL	NIL	310.5	310.5	875	1496	
24.	Zn So4 Solution (On eq Metal Basis)	TPA	NIL	NIL	NIL	NIL	NIL	NIL	1390	1390	NIL	2780	
25.	Cadmium Sponge/Cadmium Sponge filter cake/ /Cadmium Ingot /Cadmium (On eq Metal Basis)	TPA	NIL	NIL	NIL	NIL	NIL	NIL	1235	1235	NIL	2470	

26.	Cobalt Cake/Cobalt Compounds/Cobalt Filter Cake (on Equivalent metal basis )	TPA	NIL	NIL	NIL	NIL	NIL	NIL	25	25	NIL	50
27.	Ni cake / Ni Compounds (On eq Metal Basis)	TPA	NIL	NIL	NIL	NIL	NIL	NIL	15	15	NIL	30
28.	Copper Matte/Residue /Copper Cement (On eq Metal Basis)	TPA	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	960	960
29.	Cadmium Alkali Slag/Cadmium Slag (On eq Metal Basis)	TPA	NIL	NIL	NIL	NIL	NIL	NIL	225	225	NIL	450
30.	Lead Rich Dust from Bag House	TPA	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	300	300

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

S. No.	Particular	UNIT	Quantity			Probable transportation	
			Existing	Additional	Total After expansion	Source	Distance and mode
<b>Zinc Lead Smelter Plant (Pyro Plant+ Ausmelt)</b>							
1.	Zinc concentrate	TPA	199500	58000	257500	HZL mines-RA, SK & Zawar mines	<150 km Through Trucks
2.	Lead concentrate	TPA	138500	196500	335000	HZL mines-RA, SK & Zawar mines	<150 km Through Trucks
3.	Coke	TPA	100000	NIL	100000	Indigenous /imported	Approx. 1500kms Through Trucks
4.	Lime Stone	TPA	45000	NIL	45000	Nearby Mines	Approx. 250 km
5.	Iron ore /Iron Oxide	TPA	30000	NIL	30000	Mines Jabalpur	Approx. 1000 km
6.	Zinc Oxide /Zinc Dust /Zinc Bearing material/ Zinc Dross	TPA	NIL	50000	50000	Market/ HZL Smelters Approx./ From authorised recyclers	<150 km Through Trucks/ within 200 km.
7.	Lead Oxide /Lead Bearing Secondaries/Lead Dross /Lead Cake /Lead Bearing Outsourced Secondaries	TPA	Nil	50000	50000	Market/ HZL Smelters Approx./ From authorised recyclers	<150 km Through Trucks/ within 200 km.
8.	Silica	MT	3600	NIL	3600	Nearby Mines	<150 km Through Trucks
9.	Coal/ Coke	MT	1500	NIL	1500	Indigenous /imported	Approx. 1500kms Through Trucks
10.	Dolomite	MT	1700	NIL	1700	Nearby Mines	<150 km Through

S. No.	Particular	UNIT	Quantity			Probable transportation	
			Existing	Additional	Total After expansion	Source	Distance and mode
							Trucks
<b>Hydro I &amp; Hydro-II (Incl. Fumer plant) and CPP</b>							
1.	Zinc concentrate	TPA	698458	NIL	698458	HZL mines-RA, SK & Zawar mines	<150 km Through Trucks
2.	Calcine (ZnO)	TPA	337990	NIL	337990	HZL Smelters	-
3.	Zinc Dross/ Ash/ Zinc bearing waste/Zinc Oxide	TPA	15000	NIL	15000	Market/ HZL Smelters Approx./ From authorised recyclers	<150 km Through Trucks/ within 200 km.
4.	Aluminium Metal	TPA	4800	NIL	4800	Market	<150 km Through Trucks/ within 200 km.
5.	Magnesium Metal	TPA	60	NIL	60	Market	<150 km Through Trucks/ within 200 km.
6.	Copper Metal	TPA	600	NIL	600	Market	<150 km Through Trucks/ within 200 km.
7.	Limestone for FGD	TPA	NIL	131465	131465	Nearby Mines	Approx. 250 km
8.	Zinc Cathode*	TPA	NIL	140000	140000	HZL Smelter	-
<b>Minor Metal Unit</b>							
9.	PF Cake	TPA	NIL	8800	8800	HZL Smelter	Captive
10.	Cadmium Sponge	TPA	NIL	4000	4000	HZL Smelter	Captive
11.	Copper Matte	TPA	NIL	3500	3500	HZL Smelter	Captive
12.	Cobalt Cake	TPA	NIL	2000	2000	HZL Smelter	Captive
13.	Copper Dross	TPA	NIL	12000	12000	HZL Smelter	Captive
14.	Coal	TPA	NIL	1480	1480	HZL Smelter	Coal Yard
15.	Zinc Dust	TPA	NIL	2210	2210	HZL Smelter	Captive
16.	Sulphuric Acid	TPA	NIL	6500	6500	HZL Smelter	Captive

32.14.9 No additional fresh water is required for proposed expansion. After the expansion project, 500 KLD additional water will be required for the Minor Metal Unit which will be sourced from RO permeate water from ETP. The fresh water requirement for the existing project is 38570 KLD, which is obtained from the Gosunda Dam (Fresh Water) & Proposed STP Chittorgarh/ Bhilwara/ other proposed STP's (Recycled Water). The Permission for withdrawal of 1500 MCFT of surface water from Gosunda Dam has been obtained from Special Secretary, Energy Department, GOR vide letter no. F 2 (28) Energy /86-IV dated 19/11/1994.

32.14.10 The power requirement for the project is estimated as 308 MW, which will be available from the captive power plant/WHRB/Captive Solar Power Plant/ Rooftop Solar Panels / Floating Solar Panels /AVVNL.



- 32.14.11 The capital cost of the project is Rs. 773 Crores and the capital cost for environment protection measures is proposed as Rs. 38.65 Crores and recurring cost of Rs. 1.5 Crore /annum. The total employment generation after the proposed expansion project will be 360.
- 32.14.12 Name of the EIA consultant: M/s J.M. Enviro Net Pvt. Ltd. [S.No. 41, List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021]
- 32.14.13 The proposal was considered by the EAC (Industry 1) in its 32<sup>nd</sup> meeting of the Re-constituted EAC (Industry-I) held on 15<sup>th</sup>-17<sup>th</sup> March, 2021. The observations and recommendations of EAC is given as below.

**Observations of the Committee**

- 32.14.14 The EAC noted the following:
- i. Project proponent as well as the consultant deliberately suppressed the information regarding grant of EC by MoEF&CC on 05/01/2021 for setting up of the fertilizer complex in the land adjacent to the smelter complex wherein the green belt development for the existing zinc smelter was envisaged.
  - ii. No details have been mentioned about the Fertilizer complex neither in the Form I nor in the Pre-feasibility report as there is an involvement of inter-movement of materials between the smelter complex and fertilizer complex.
  - iii. Neither the proponent nor the consultant was unable to explain the products envisaged under the minor metal production.
  - iv. Consultant made contradicting statements on the baseline data collected during Oct to December, 2020 with respect to the prevailing meteorological conditions, location of sampling stations and parameters monitored for the different environmental components.
  - v. Implementation status of the EC dated 14/10/2020 has not been furnished.
  - vi. Scoping for carrying out the cumulative impact assessment including fertilizer complex has not been considered.
  - vii. Form I has been filled with generic information and no project specific quantities have been provided which are essentially required for due-diligence by the EAC.

**Recommendations of the Committee**

- 32.14.15 In view of the foregoing and after detailed deliberations, the committee recommended the following:
- i. Proposal shall be returned in present form to address the concerns of the Committee as enumerated above.
  - ii. Show Cause Notice may be issued to the project proponent for deliberately suppressing the information regarding grant of EC by MoEF&CC on 05/01/2021 for setting up of the fertilizer complex in the land adjacent to the smelter complex.
  - iii. Show Cause Notice may be issued to the EIA consultant - M/s J.M. Enviro Net Pvt. Ltd. for deliberately suppressing the information regarding grant of EC by MoEF&CC on 05/01/2021 for setting up of the fertilizer complex in the land adjacent to the smelter complex. Further, contradicting statements have been made on the baseline data

collected during Oct to December, 2020 with respect to the prevailing meteorological conditions, location of sampling stations and parameters monitored for the different environmental components. Besides, Form I has been filled with generic information and no project specific quantities have been provided which are essentially required for due-diligence by the EAC.

32.15 Proposed Green field Project -34.5 MTPA throughput Iron Ore Beneficiation Plant by **M/s Thriveni Earthmovers Private Ltd.** at Deojhar, Tehsil: Barbil, **Dist: Keonjhar, Odisha** [Online Proposal No. IA/OR/IND/202015/2021; File No. IA-J-11011/87/2021- IA-II(I)] – **Prescribing of Terms of Reference** – regarding.

32.15.1 M/s Thriveni Earthmovers Pvt. Ltd. has made an application online vide Proposal No. IA/OR/IND/202015/2021 dated 05/03/2021 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. 2(b) Mineral beneficiation under Category “A” of the schedule of the EIA Notification, 2006 and attracts general condition due to presence of inter-state boundary between Jharkhand and Odisha (1.1 km north) being appraised at Central Level.

**Details submitted by Project proponent**

32.15.2 The project of M/s Thriveni Earthmovers Pvt. Ltd. is located in Village Deojhar, Tehsil Barbil, District Keonjhar, State Odisha is setting up of a new Iron Ore Beneficiation Plant for throughput capacity of 34.5 Million Tons Per Annum.

32.15.3 Environmental site settings

S. No.	Particulars	Details				
i.	Total Land	144.962 ha [Govt: 138.962 ha and Grazing land: - 6.0 Ha]. Land Use: Barren land with tree cover in patches				
ii.	Existence of habitation & involvement of R&R, if any	None				
iii.	Latitude and Longitude of the Project site	Latitudes: 22°05'30"N to 22°07'30"N Longitudes: 85°27'30" to 85°29'30"E				
iv.	Elevation of the Project Site	520 to 620 meters aMSL				
v.	Involvement of Forest land if any	Not applicable.				
vi.	Water body exists within the project site as well as study area	None within the Project site  Study Area <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Name</th> <th>Distance</th> </tr> </thead> <tbody> <tr> <td>Baitarini River</td> <td>7.9 km</td> </tr> </tbody> </table>	Name	Distance	Baitarini River	7.9 km
Name	Distance					
Baitarini River	7.9 km					
vii.	Existence of ESZ/ESA/National Park/Wildlife Sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	None within 10 km radius				

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

Sr. No.	Name	Configuration	Production, TPA
1	Iron Ore Beneficiation Plant	6 x 5.75 MTPA (Throughput)	34.5 MTPA (Throughput)

32.15.5 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	Mode of transportation
1	Iron Ore fines	34.5 MTPA	Joda, Barbil area of Odisha and Barajamda, Nuamundi area of Jharkhand	Within 50 km	By Road/ Rail, Conveyor, underground Slurry Pipelines

32.15.6 The water requirement for this Beneficiation plant will be 28 Cusec and sourced through water pipeline from River Baitarani at Basudevpur of Dist. Keonjhar. Allocation of water from river Baitarani in favour of Thriveni for 30 MTPA (34.5 throughput capacity on dry basis Beneficiation Plant has been recommended by IPICOL vide letter no. CGM/SLNA/TEMPL/195/20/1996 dated 14.07.2020. As reported., there will not be any groundwater usage.

32.15.7 The power requirement for the project is estimated as **70 MW** which will be obtained from the **NESCO**.

32.15.8 The capital cost of the project is Rs. 1426.75 Crores and the capital cost for environmental protection measures is proposed as Rs. 71.34 Crores (Capital Cost) and Rs. 7.8 Crores (Recurring Cost). The employment generation from the proposed measures is proposed as 434 persons.

32.15.9 The project proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

32.15.10 Name of the EIA consultant: M/s Visiontek Consultancy Services Private Limited [S.No. 92, List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021].

32.15.11 Proposed Terms of Reference (Baseline data collection period: Oct 2021 to Dec 2021).

Attributes	Parameters	Sampling		Remarks
		No. of Stations	Frequency	
A. Air				
a. Meteorological parameters	Temperature, relative humidity, wind direction, wind speed, cloud cover	1	Continuous during the monitoring period (three months)	
b. AAQ parameters	PM10, PM2.5, SO <sub>2</sub> ,	8	Twice in a week	

Attributes	Parameters	Sampling		Remarks
		No. of Stations	Frequency	
	NO <sub>x</sub> , CO		for 12 weeks	
B. Noise	Sound pressure Levels, Leq in dB(A)	8	Continuous for 24 hours, once at each location	
C. Water				
Surface water	Physico-chemical & Biological parameters	5	Once during study period	
Ground water quality parameters	As per IS:10500 standards	8		
D. Land				
a. Soil quality b. Land use	Soil nutrition & physical properties Satellite imagery based land use studies	6	Once during study period  Once during study period	
E. Biological a. Aquatic b. Terrestrial	List of flora and fauna in core zone & study area	--	Once during study period	
F. Socio-economic parameters	Demographic & economic status, infrastructure facilities availability, need based assessment	10	Once during study period	

32.15.12 The proposal was considered by the EAC (Industry 1) in its 32<sup>nd</sup> meeting of the Re-constituted EAC (Industry-I) held on 15<sup>th</sup>-17<sup>th</sup> March, 2021. The observations and recommendations of EAC is given as below.

**Observations of the Committee**

32.15.13 The EAC noted the following:

- i. The site selected is in three parcels and not justified when compared with other two sites. Area for slime disposal is too large for the operation. No concrete plan for slime utilization.
- ii. Form I has been filled with generic information and no project specific quantities have been provided which are essentially required for due-diligence by the EAC.

**Recommendations of the Committee**

32.15.14 In view of the foregoing and after detailed deliberations, the committee recommended that the proposal be returned in present form to address the concerns of the Committee as enumerated above.

**17<sup>th</sup> March, 2021**

- 32.16 Setting up of a Greenfield Integrated Steel Plant of capacity 13.2 MTPA Crude Steel with 10 MTPA Cement grinding unit & 900 MW Captive Power Plant by **M/s. JSW Utkal Steel Limited** located near Paradeep, **Jagatsinghpur district, Odisha**. [Online Proposal No. IA/OR/IND/74396/2018; File No. J-11011/524/2017-IA.II (I)] – **Environment Clearance** – regarding.
- 32.16.1 M/s. JSW Utkal Steel Limited. has made an online application vide proposal no. IA/OR/IND/74396/2018 dated 04/03/2021 along with copy of EIA/EMP report and Form-2 seeking Environmental Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3 (a) Metallurgical industries (Ferrous & non-ferrous) under Category “A” of the schedule of the EIA notification, 2006 and appraised at Central level.
- 32.16.2 The proposal was considered by the EAC (Industry 1) in its 32<sup>nd</sup> meeting of the Re-constituted EAC (Industry-I) held on 15<sup>th</sup>-17<sup>th</sup> March, 2021.
- 32.16.3 The project proponent vide email dated 16/03/2021 expressed their inability to participate in the EAC meeting and **requested to return their proposal in its present form** to *“revisit and correct the uploaded Form-2 for incorporating the Integrated [Common] EIA Report for ISP and Jetty(ies) Project at Paradeep, Odisha”*.

**Recommendations of the Committee**

- 32.16.4 In view of the request made by the project proponent, the Committee accepted the request of the project proponent to withdraw the proposal in its present form.
- 32.17 Expansion of Steel Plant by expanding Sponge Iron from 1,20,000 TPA to 3,18,000 TPA, MS Billets from 1,05,000 TPA to 3,72,300 TPA, Rolling Mill from 1,00,000 TPA to 3,00,000 TPA, Submerged Arc Furnace (SAF) from 15,000 TPA to 30,000 TPA & Captive Power Plant from 16 MW to 42 MW including Waste Heat Recovery Boiler (WHRB) by **Giridhan Metal Private Limited** at Jamuria Industrial Estate, Village Ikra & Damodarapur, Tehsil Jamuria, **District Paschim Bardhaman, West Bengal** [Online Proposal No. IA/WB/IND/201973/2010; File No. J-11011/366/2010-IA.II(I)] – **Environment Clearance** – regarding.
- 32.17.1 M/s. Giridhan Metal Private Limited has made an online application vide proposal no. IA/WB/IND/201973/2010 dated 05/03/2021 along with copy of EIA/EMP report and Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

**Details submitted by Project proponent**

- 32.17.2 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord
07/08/2019	10 <sup>th</sup> meeting of the REAC (Industry – 1) held on 22 <sup>nd</sup> – 23 <sup>rd</sup> August, 2019	Terms of Reference	01/10/2019
04/02/2020	Transfer of ToR	Transfer of ToR from Damodar Ispat Limited to Giridhan Metal Private Limited	16/03/2020

32.17.3 The project of M/s. Giridhan Metal Private Limited located at Jamuria Industrial Estate, Village Ikra & Damodarpur, Tehsil Jamuria, District Paschim Bardhaman, State West Bengal is for expansion of Steel Plant by expanding Sponge Iron from 1,20,000 TPA to 3,18,000 TPA, MS Billets from 1,05,000 TPA to 3,72,300 TPA, Rolling Mill from 1,00,000 TPA to 3,00,000 TPA, Submerged Arc Furnace (SAF) from 15,000 TPA to 30,000 TPA & Captive Power Plant from 16 MW to 42 MW including Waste Heat Recovery Boiler (WHRB).

32.17.4 Environmental Site Settings

S. No.	Particulars	Details	Remarks
i.	Total land	Existing plant area is 40.44 acres (16.37 ha). Additional land required for expansion is 38 acres (15.37 ha). Hence after expansion, total plant area will be 78.44 acres (31.74 ha).	Proposed expansion will be done within existing plant premises and own additional area adjacent to plant site. Complete land is already under the possession of company.
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Total plant area after expansion will be 78.44 acres (31.74 ha) which is totally under the possession of the company.	Plot details with area of land under possession of GMPL duly certified by Block Land & Land Reforms Officer, Jamuria, Burdwan obtained.
iii.	Existence of habitation & involvement of R&R, if any.	Expansion project will be done within existing plant premises and company's own land adjacent to existing plant and there is no existence of habitation & involvement of R&R	--
iv.	Latitude and Longitude of the	Latitude: 23 <sup>o</sup> 41'4 <sup>o</sup> .83" N to 23 <sup>o</sup> 41'59.49" N	--

S. No.	Particulars	Details	Remarks
	project site.	Longitude: 87 <sup>0</sup> 5'35.35" E to 87 <sup>0</sup> 6'0.97" E	
v.	Elevation of the project site	Elevation of the plant site is from 111 m to 127 m	--
vi.	Involvement of Forest land, if any.	No Forest land is involved.	--
vii.	Water body exists within the project site as well as study area	<b>Project site:</b> No natural water body present within plant site. <b>Study area:</b> 5 water bodies present within study area. Name and its distance from the plant site is as follow: <ul style="list-style-type: none"> <li>○ Singaran Nala (~2.5 km in East direction)</li> <li>○ Damodar Nala (~3.0 km in West direction)</li> <li>○ Punta Khal (~6.5 km in WNW direction)</li> <li>○ Nonia Khal (~8.0 km in SW direction)</li> <li>○ Ajay River (~8.0 Km in NNE direction)</li> </ul>	--
iii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	No ESZ/ ESA/ National Park, Wildlife Sanctuary, Biosphere Reserve, tiger reserve, elephant reserve exists within 10 km radius study area.	-

32.17.5 The existing project was accorded environmental clearance vide letter number J-11011/366/2010-IA.II(I) dated 2<sup>nd</sup> April, 2012 for expansion of existing unit of 1x50 TPD (15,000TPA) DRI by 3 x 100 TPD DRI (1,05,000 TPA of sponge iron), 2x15T IF, 1x30T LF (1,05,000 TPA of MS Billets), 310 TPD Rolling mill (1,00,000 TPA of Rods/bars/light structurals), 1X9 MVA SAF (15,000TPA of Fe–Mn/Si-Mn), 16 MW Captive Power Plant (7 MW of WHRB and 9 MW of FBC) and validity extension issued on 24<sup>th</sup> May, 2019 and validity extended till 1<sup>st</sup> April, 2022. Transfer of EC from Damodar Ispat Limited to Giridhan Metal Private Limited was also obtained from MoEFCC vide letter no. J-11011/366/2010-IA. II(I) dated 29<sup>th</sup> Jan., 2020. The implementation of this EC is under process and is expected to be completed within validity period. Consent to Establish was obtained from WBPCB vide Memo no. 211-2N-51/2003 & NOC NO159358 dated 15/02/2019. and change in name of CTE from Damodar Ispat Limited to Giridhan Metal Private Limited vide Memo No. 196-2N-51/2003(E) and NoC no. 164509 dated 04/08/2020.

32.17.6 Implementation status of the existing EC:

S. No.	Facilities	Units	Capacity as per granted EC dated 2nd April, 2012 & validity extended till 1 <sup>st</sup> April, 2022	Implementation Status as on date	Expected Completion Time
1.	Sponge Iron	TPA	120000 (1X 350 TPD DRI Plant)	Under Construction	Apr, 2021
2.	MS Billets	TPA	105000 {2X15 Ton IF (Induction Furnace) * & 1X30 Ton LF (Ladle Furnace)}	Under Construction	Nov., 2021
3.	Rolling Mill	TPA	100000 (310 TPD of rolled/bars/light structure)	Under Construction	Nov., 2021
4.	SAF	TPA	15000 (1X9 MVA of Fe-Mn/ Si-Mn)	Under Construction	May, 2021
5.	Captive Power Plant	MW	16 MW (35 TPH WHRB & 32 TPH FBC boiler)	Under Construction	Apr., 2021

*\*Note – As per the recommendation of EAC for the expansion proposal (also mentioned in the ToR letter issued on 1/10/2019), existing 15 Ton IF will be replaced by 20 Ton IF. Expected time of completion as submitted earlier is delayed by 5-6 months due to unprecedented time because of COVID19 and expected time of completed tabulated above is after considering the unprecedented delay.*

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

S. No.	Name	Existing Unit		Proposed Unit		Total (Existing + Proposed)	
		Configuration	Production (TPA)	Configuration	Production (TPA)	Configuration	Production (TPA)
1.	Sponge Iron (DRI Plant)	1X 350 TPD	120000 TPA	1X 600 TPD	198000 TPA	1x 350 & 1X 600 TPD DRI Plant	318000 TPA
2.	MS Billets (Induction Furnace with LF & CCM)	2X15 Ton IF (Induction Furnace) * & 1X30 Ton LF (Ladle Furnace)	105000 TPA	6X15 Ton IF* (Induction Furnace)	267300 TPA	6X20 Ton IF* (Induction Furnace) & 1X30 Ton LF (Ladle Furnace)	372300 TPA
3.	Rolling Mill	310 TPD of rolled/bars/light structure	100000 TPA	625 TPD of rolled/bars/light structure	200000 TPA	310 TPD & 625TPD of rolled/bars/light structure	300000 TPA
4.	Submerged Arc Furnace (SAF)	1X9 MVA of Fe-Mn/ Si-Mn	15000 TPA	1X9 MVA of Fe-Mn/ Si-Mn	15000 TPA	2X9 MVA of Fe-Mn/ Si-Mn	30000 TPA
5.	Waste Heat	35 TPH	7 MW	70 TPH	14 MW	35 TPH & 70 TPH	21 MW



S. No.	Name	Existing Unit		Proposed Unit		Total (Existing + Proposed)	
		Configuration	Production (TPA)	Configuration	Production (TPA)	Configuration	Production (TPA)
	Recovery Boiler based CPP						
6.	Captive Power Plant (FBC boiler)	1X 32 TPH FBC boiler	9 MW	50 TPH FBC boiler	12 MW	1X 32 TPH & 50 TPH FBC boiler	21 MW
7.	Billet Caster	1X 350 TPD DRI Plant	120000 TPA		2X2 Strand	2X2 Strand	
8.	Railway Siding with Wagon Tippler						
<p>Note: *On the recommendation of honorable EAC, instead of 2X15 Ton IF and proposed 6X15 Ton IF (Induction Furnace), {6X20 Ton IF (Induction Furnace)} will be installed as a part of proposed expansion.                      Note: - Presently only 15000 TPA Sponge Iron Plant (50 TPD DRI Plant) is installed which is currently non-operational and will be dismantled after commissioning of 1X350 TPD.</p>							

32.17.8 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	Estimated quantity (in TPA)			Source of raw material	Mode of transportation	Distance from plant site
		Existing	Additional	Total after expansion			
<b>I</b>							
<b>Sponge iron</b>							
1.	Iron Ore / Iron Ore Pellets	1,74,000	3,03,000	4,77,000	Iron Ore – From Orissa & Jharkhand	Rail	250-280 Km
					Iron Ore Pellets – Nearby plants e.g. Super Smelters Ltd, Shyam Sel etc.	Road	Within 2 Km
2.	Coal (Imported)	75,600	1,24,740	2,00,340	To be procured through reputed importers like Adani global Pte limited, Saraogi Global Pte Limited, Swiss Singapore Overseas, Coal India ltd, Avani, JSW Intl, etc.	Ship & Rail	Over Sea
	Indian Coal for DRI	32,400	53,460	85,860	ECL, Agarwal Coal etc.	Rail	60-80 km
3.	Dolomite	4,200	6,930	11,130	To be procured from Bhutan	Rail	900-920 Km
<b>II</b>							
<b>Steel Melting Shop</b>							

S. No.	Raw material	Estimated quantity (in TPA)			Source of raw material	Mode of transportation	Distance from plant site
		Existing	Additional	Total after expansion			
1	Pig Iron	15,750	37,861	53,611	To be procured mainly from Tata Steel, SAIL, etc as well as other reputed suppliers.	Rail	150-170 KM
2	Sponge Iron (DRI)	99,750	271060	370810 (Self -3,18,000 Purchased-52,810)	Own Production and other nearby steel mills, if required.	Own Nearby plants	Own 1-5 KM
3	Scrap	5,350	16,988	22,338	To be procured through Indicaa Group Limited, Ayaan Global FZE and other reputed suppliers.	Ship & Rail	Over Sea
4	Ferro Alloys	2,100	2,740	4,840	Silico Manganese from own production / Indsil energy & Electro Chemicals Limited and other suppliers	Own	Own
<b>III</b>	<b>Rebar Mills</b>						
1	Liquid steel	1,05,000	2,67,300	3,72,300	Own Production		
<b>IV</b>	<b>Ferro Alloys Plant: Silico Manganese</b>						
1	Manganese Ore	37,500	37,500	75,000	Import from South Africa / domestic purchase from state of Madhya Pradesh, Karnataka, etc	Rail	900-950 KM
2	Coal / Coke	12,600	12,600	25,200	Import / Local Purchase	Road	Within 10-15 KM
3	Electrode Paste	300	300	600	Purchase from Maharashtra, West Bengal, Karnataka, etc	Road	20-25 KM
4	Oxygen Lancing Pipe, Casting Sheets, etc	70	70	140	Local sources	Road	Within 10-15 KM
5	Dolomite	4000	4000	8000	To be procured from Bhutan	Rail	900-920 km

S. No.	Raw material	Estimated quantity (in TPA)			Source of raw material	Mode of transportation	Distance from plant site
		Existing	Additional	Total after expansion			
<b>V Captive Power Plants</b>							
1	Coal for CPP	75,000	85,000	1,60,000	Auction – Eastern Coal fields Limited (ECL) and suppliers like Adani Enterprises and Agarwal Coal Corporation	Rail	60-80 km

32.17.9 The total freshwater requirement for the project is estimated as 4178 m<sup>3</sup>/day which will be obtained from Surface Water (River Barakar d/s of Maithon Dam). River Barakar is the main tributary of the Damodar River in eastern India. The permission for drawl of Surface water (4.178 MLD) has already been obtained from Damodar Valley Reservoir Regulation Committee (DVRRC), Unit Maithon, Dhanbad (Jharkhand), Central water Commission, Department of Water Resources, Ministry of Jal Shakti, GoI vide their letter no. MD/DVRR/W-6(143)/2020/1756-61 dated 01<sup>st</sup> July, 2020.

32.17.10 The power requirement for the project is estimated as 84.3 MW, which will be obtained from Captive Power Plant (42 MW) and remaining will be sourced from West Bengal State Power Grid/ Damodar Valley Corporation (DVC). Damodar Valley Corporation, Kolkata vide their letter no. Coml/PS/GMPL/Jamuria/246 dated 04/09/2020 for supplying 25 MVA power and India Power vide Ref. no. 10033882 dated 16<sup>th</sup> March, 2020 granted permission for power supply.

32.17.11 Baseline Environmental Studies:

Period	Post-Monsoon Season (Oct., to Dec., 2019)
AAQ parameters at 12 locations	PM <sub>2.5</sub> - 29.6 to 53.2 µg/m <sup>3</sup> PM <sub>10</sub> - 63.1 to 94.4 µg/m <sup>3</sup> SO <sub>2</sub> - 8.9 to 28.2 µg/m <sup>3</sup> NO <sub>2</sub> - 14.1 to 36.1 µg/m <sup>3</sup> CO - 0.54 to 1.66 mg/m <sup>3</sup>
AAQ modelling	PM <sub>10</sub> – 3.12µg/m <sup>3</sup> SO <sub>2</sub> - 1.09µg/m <sup>3</sup> NO <sub>x</sub> - 1.19µg/m <sup>3</sup>
Ground water quality at 8 locations	pH: 6.77 to 7.46, Total Hardness: 195.2 to 307 mg/l, Chlorides: 57.85 to 182.13 mg/l, Fluoride: 0.63 to 1.24 mg/l. Heavy metals are within the limits.
Surface water quality at 5 locations	pH: 6.72 to 7.66; DO: 5 to 7.4 mg/l and BOD: 2.3 to 6.9 mg/l, COD from 7.8 to 25.4 mg/l
Noise levels	53.8 Leq dB (A) to 62.9 Leq dB (A) for day time and 43.3 to 54.3 Leq dB (A) for Night time

Traffic assessment study findings	Transportation of raw material will be majorly done by rail. Traffic survey was conducted for 24 hours at NH-2 which is 4.5 km in SSW direction from the plant boundary. Its road network is very good to bear the increased traffic load. Proper parking facility will be provided.
Flora and fauna	No Schedule I species were found in the core as well as buffer zone.

32.17.12 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 (TPA)	Mode of treatment / Disposal
1.	CPP Fly ash	Captive Power plant	45,267	Use for making fly ash brick in nearby bricks manufacturing unit. It will also sale to nearby bricks plant. Supplied to cement plant to make Portland cement production.
2.	CPP Bottom ash		19,400	Use for making paver block/ replacement of sand.
3.	Ferro Alloys Slag	Ferro Alloy Plant	28,500	Use as replacement of stone chips in road making. Dump in OCP of ECL
4.	IF slag	Induction furnace	54,192	River sand substitute, land fill after iron separation.
5.	Dolochar	Sponge Iron Plant	47,700	Use in FBC for power generation
6.	Kiln Accretion		1,950	Road Making & Land fill
7.	Mill scale & scrap	Rolling Mill	12,210	To be fully consumed in plant
8.	Fly ash	DRI Kilns	51,675	Dumped in abandoned OCP of Eastern Coalfields Limited (ECL)
9.	ETP Sludge	Effluent Treatment Plant	1.2	Disposed off at Secured landfill site through authorized and approved vendor
10.	Used oil and grease	-	10	Sold to Authorized vendor.

32.17.13 Public Consultation:

Details of advertisement given	Public Hearing Notice published in Newspaper “The Telegraph”, “Millennium Post” Anandabazar Patrika”, “Bartaman” & “Aajkaal” dated 12th September, 2020.
Date of Public Consultation	15 <sup>th</sup> October, 2020
Venue	Jamuria Town Hall, District Paschim Bardhaman, West Bengal.
Presiding Officer	o Dr. Abhijit Shevale, I.A.S. (Additional District Magistrate, Paschim Bardhaman, West Bengal)

	o Mr. Swarup Kumar Mandal (Senior Environmental Engineer, WBPCB)
Major issues raised	I. Employment Generation II. Pollution free environment and measures for abatement of pollution III. No ground water abstraction IV. Continuation of CSR Activities related V. Management of plant waste water VI. Providing ambulance for local people VII. Maintenance of roads
Budget for implementation of PH issues	Rs. 4.36 Crores

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

S. No.	Particulars	Physical activity and action plan	UOM	Physical activity and action plan	UOM	Physical activity and action plan	UOM	Tentative Budget (In Lakhs)
		To be implemented in 1 <sup>st</sup> year		To be implemented in 2 <sup>nd</sup> Year		To be implemented in 3 <sup>rd</sup> Year		
<b>1.</b>	<b>Concern Raised in PH - Creation of employment Opportunities &amp; skill development</b>							
	Village Damodarapur	Adoption of Adivasi football team for boys and girls & development of their Football ground	15 nos. boys & 15 nos. girls	Skill development/vocational training in trades	10nos.	Skill development/vocational training in trades	10	30.2
		Training & Employment of local youth in own company	10 nos.					
	Village Simultala/Shekhpur	Training & Employment of local youth in own company	10 nos.	Skill development/vocational training in trades	10 nos.	Skill development/vocational training in trades	10 nos.	26.2
	Village Ikra/Balanpur	Training & Employment of local youth in own company	10 nos.	Skill development/vocational training in trades	10 nos.	Skill development/vocational training in trades	10 nos.	26.2
	Village Akhalpur	Training & Employment of local	10 nos.	Skill development/vocational training in trades	10 nos.	Skill development/vocational training in trades	10 nos.	26.2

S. No.	Particulars	Physical activity and action plan	UOM	Physical activity and action plan	UOM	Physical activity and action plan	UOM	Tentative Budget (In Lakhs)
		To be implemented in 1 <sup>st</sup> year		To be implemented in 2 <sup>nd</sup> Year		To be implemented in 3 <sup>rd</sup> Year		
		youth in own company						
	Village Benali			Skill development/vocational training in trades	10 nos.	Skill development/vocational training in trades	10 nos.	25
2.	<b>Concern Raised in PH - Infrastructure Development &amp; provision of drinking water facilities in nearby areas viz., development of roads, local schools</b>							
	Village Damodarpur	Construction of Adivasi community temple	1 nos.	RO drinking water for villagers through tanker	1 no.	Installation of solar lights	10 nos.	61
		Construction of community toilet for villagers	6 nos.	Repairing of internal roads	400 m	RO drinking water for villagers through tanker	1 no.	
		Provision of RO drinking water for villagers through tanker	1 no.					
	Village Simultala/Shekhpur	Construction of Community toilet	2 with 6 toilets each	Construction of drainage system and connect with main drain	400 m	RO drinking water for villagers through tanker	1 no.	67
		Construction of bath ghat	1 no.	RO drinking water for villagers through tanker	1 no.			
		Provision of RO drinking water for villagers through tanker	1 no.					
	Village Ikra/Balanpur	Construction of well for drinking water	1 no.	Construction of cycle stand shed in Govt. High school	1	Provision of computer	3 nos.	14.1
		Construction of lunch shed in Govt. primary school	1 no.			Provision of printer	1 no.	
		Construction of cultural stage	1 nos.			Installation of LED lights in villages	10 nos.	
						Distribution of furniture(Tables &	30 nos.	

S. No.	Particulars	Physical activity and action plan	UOM	Physical activity and action plan	UOM	Physical activity and action plan	UOM	Tentative Budget (In Lakhs)
		To be implemented in 1 <sup>st</sup> year		To be implemented in 2 <sup>nd</sup> Year		To be implemented in 3 <sup>rd</sup> Year		
						Chairs) in Govt Primary school		
	Village Akhalpur	Construction of toilet in Govt. Primary School	2 closed toilets with 3 urinals	Construction of borewell for drinking water in Govt. Primary School	1 no.	Installation of solar light	3 nos.	19.0
		Construction of boundary wall of Muslim Cemetery	1000 m	Construction of public toilet in Hermitage	5 closed toilets			
	Village Benali	Renovation of Govt. School	1 no.	Distribution of furniture in school (Tables & Chairs)	20 nos.	Repairing of internal road	700 m	15.5
	Others					Development of roads opposite to plant site or connecting to one pucca road from Akhalpursubvillage to Damodarpur main road	1 km	80
3.	<b>Concern Raised in PH - Greenbelt development in nearby areas &amp; preserving local species</b>							
	Village Damodarpur	Community plantation	500 saplings	Distribution of samplings and tree guard	300	Distribution of samplings and tree guard	300	0.85
	Village Simultala/Shekhpur	Community plantation	600 saplings	Distribution of samplings and tree guard	300	Distribution of samplings and tree guard	300	0.95
	Village Ikra/Balanpur	Community plantation along with plantation in Govt. Primary School	700 saplings					0.55
	Village Akhalpur	Community plantation	700 saplings			Distribution of samplings and tree guard	300	0.8
	Village Benali	Community plantation	400 saplings			Distribution of samplings and tree guard in schools and villages	500 saplings	0.7
4.	<b>Concern Raised in PH - Development of Health facilities</b>							
	Village Damodarpur	Air-Conditioned Bolero Ambulance to Borough for villagers duly	1 no.					10

S. No.	Particulars	Physical activity and action plan	UOM	Physical activity and action plan	UOM	Physical activity and action plan	UOM	Tentative Budget (In Lakhs)
		To be implemented in 1 <sup>st</sup> year		To be implemented in 2 <sup>nd</sup> Year		To be implemented in 3 <sup>rd</sup> Year		
		equipped with oxygen and stretcher						
	Village Akhalpur			Provision of medical equipment as per the requirement of health centre	2 nos.			20
5.	<b>Concern Raised in PH - Control of Pollution because of proposed project viz., air pollution, discharge of water, dust etc</b>							
	Village Damodarpur			Water tanker for water sprinkling on road to minimise fugitive emission during vehicular movement	2 nos.			12
Company has allocated Rs. 4.36 Crores for implementing all the activities mentioned above for socio-economic development of the area								436.25

32.17.14 The capital cost of the project is Rs. 996.69 Crores (Cost of project under implementation is Rs. 427.03 Crores and for proposed expansion is Rs. 569.66 Crores) and the capital cost for environmental protection measures is proposed as Rs. 55.5 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 5.8 Crores. The employment generation from the project is 2003 during operation phase. The details of cost for environmental protection measures is as follows:

BREAKUP OF EMP COST				
S. No.	Description		Capital Cost (Crores)	Recurring Cost/annum (Crores)
1	Air Pollution management	ESPs & bag filters + stack	47.0	4.65
2	Water pollution management	Installation of Effluent Treatment Plant and sewage treatment plant	2.0	0.1
3	Environment Monitoring	Lab Instrument	0.15	0.05
		Online monitoring of air water	1	0.2
		Third party investment for monitoring	0.15	0.15
		Others	0.2	0.2
4	Solid waste management	Ash handling & management	1.0	0.2
		Sludge/slag handling		
5	Greenbelt & plantation development	Additional Greenbelt development & other miscellaneous requirements	2.0	0.15
6	Rain water harvesting	Required infrastructure	2.0	0.1



<b>BREAKUP OF EMP COST</b>			
<b>S. No.</b>	<b>Description</b>	<b>Capital Cost (Crores)</b>	<b>Recurring Cost/annum (Crores)</b>
	<b>Total</b>	<b>55.5</b>	<b>5.8</b>

- 32.17.15 Greenbelt will be developed in 12.7 ha (31.38 acres) which is about 40% of the total project area. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and greencover as per CPCB/ MoEFCC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total number of 31750 samplings will be planted and nurtured in 12.7 ha within 4 years.
- 32.17.16 The proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.
- 32.17.17 Name of the EIA consultant: M/s J.M. EnviroNet Pvt. Ltd., [S.No. 41, List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021].

**Certified compliance report from Regional Office**

- 32.17.18 The Status of compliance of earlier EC was obtained from Integrated Regional Office, Kolkata *vide* letter no. 102-410/20/EPE/07 dated 05/02/2021 in the name of M/s. Giridhan Metal Private Limited. The Action taken report regarding the observations was submitted to Regional officer MoEF&CC, Kolkata *vide* letter no. GMPL/20-21/MoEFCC/03 dated 10/03/2021. The present status of observations made by RO as furnished by the PP is given as below.

<b>S. No.</b>	<b>Non-compliance Details</b>	<b>Observations of RO</b>	<b>Condition No.</b>			<b>Response by PP</b>
			<b>EC date</b>	<b>Specific</b>	<b>General</b>	
1.	-	It is mentioned that dust suppression system and bag filters shall be installed to control the fugitive dust emissions at conveyor and transfer points, product handling, loading and unloading points, but it is observed the same is being partially complied by the PA.	2nd April, 2012 & validity extended till 1st April, 2022	(v)	-	The former company had only one 50 TPD DRI production unit. After transfer of EC (Environment Clearance) from M/s Damodar Ispat Limited to M/s Giridhan Metal Private Limited, the new management has stopped the 50 TPD DRI production since 04.02.2020 and the same has been intimated to The Chairman, CPCB and Eastern Regional Office, MoEFCC, Bhubaneswar. The project is now in construction phase for the present EC and company ensures dust suppression system and bag filters will

S. No.	Non-compliance Details	Observations of RO	Condition No.			Response by PP
			EC date	Specific	General	
						be installed to control fugitive dust emissions at conveyor and transfer points, product handling, loading and unloading points.
2.		As proposed, green belt shall be developed in 33% of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO. Though the project proponent has done some plantation along the boundary line of the plant, it is not 33% yet.		(xvi)		33% of the existing plant area i.e., 13.34 acres (5.4 ha) has been earmarked and is being developed under greenbelt & plantation. Presently, 5533 trees i.e. ~1000 trees/ha have been planted. The company has also proposed expansion in their existing EC and as a part of expansion approx. 40% of the total plant area i.e. 31.38 acres (12.7 ha) will be developed under greenbelt & plantation by planting trees to the tune of 2500 trees/ha.
3.		The copy of the letter with respect to environment clearance letter marked to concerned Panchayat, Zila Parishad, Municipal Corporation/Urban Local Body, local NGO may be submitted to the Regional Office, Kolkata.			(xi)	After taking over the assets of the former company, GMPL could not locate the submission receipts of letter w.r.t. EC marked to concerned authority. The company ensures that on receipt of Environment Clearance of proposed expansion the letter will be positively marked to concerned Panchayat, Zila Parishad, Municipal Corporation/Urban Local Body, local NGO may be submitted to the Regional Office, Kolkata.

32.17.19 The proposal was considered by the EAC (Industry 1) in its 32nd meeting of the Re-constituted EAC (Industry-I) held on 15<sup>th</sup> – 17<sup>th</sup> March, 2021. The observations and recommendations of EAC is given as below:

**Observations of the Committee**

32.17.20 The Committee noted the following:

- i. The EAC found that the EIA/EMP report is in order reflecting the present environmental concerns and the projected scenario for all the environmental components arising out of the proposed project with respective mitigation measures. The EAC also noted that the baseline data reported and incremental GLC due to the proposed project were within NAAQ standards.
- ii. The EAC also deliberated on the public hearing issues as well as action plan to address the issues raised during public hearing and found it satisfactory.
- iii. The Committee also deliberated upon the certified compliance report of RO and found satisfied with the action taken report submitted by the proponent.

**Recommendations of the Committee**

32.17.21 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 for the instant proposal subject to the 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:

**B. Specific conditions**

- i. Green belt shall be developed in 31.38 acres of land (40%) including the gap filling in the existing green belt with a tree density of 2500 trees per hectare.
- ii. Closed type Submerged Arc Furnace with 4<sup>th</sup> hole extraction system shall be installed.
- iii. 1 x350 TPD and 1x600 TPD DRI kiln shall be installed. Remaining DRI kilns as per the existing EC accorded by MoEF&CC shall not be installed and 50 TPD DRI kiln existing at the site shall be dismantled.
- iv. Project proponent shall meet the particulate matter emission norms in all the stacks less than 30 mg/Nm<sup>3</sup>.
- v. The project proponent shall comply with emission norms of PM, SO<sub>x</sub>, NO<sub>x</sub> and mercury for captive power plant as stipulated in the gazette notification no. S.O. 3305 (E) dated 7/12/2015.
- vi. PP shall prepare and implement an action plan giving annual improvement targets for resource conservation and environment improvement. This plan shall be monitored by the concerned Regional Office of the MoEF&CC.
- vii. The heat rate of coal based power plant as specified by Central Electricity Authority shall be maintained and monitored.
- viii. Energy efficient drives, VFD for auxiliary motors and slip power recovery system for motors above 1000 kw shall be provided.

- ix. PTFE Membrane bags shall be used in filter bag house and designed for 150% of normal design air flow.
- x. PP shall use ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system. Shall use Post combustion control system (SCR/SCNR process) with NH<sub>3</sub> monitoring when Ammonia is used.
- xi. Project proponent shall undertake rain water harvesting and recharge the ground water. Level monitoring indicators for online real time measurement of rain water harvesting shall be provided.
- xii. Treated effluent shall be recycled and reused.
- xiii. Air cooled Condensers shall be used in CPP.
- xiv. 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.
- xv. Jigging and briquetting Plant shall be installed.
- xvi. 85-90 % Hot charging of billets shall be done. Balance heating can be done through RHF using LDO/FO as heating fuel.
- xvii. An affidavit shall be submitted to the Ministry as well as the Regional Office stating that observations made in the inspection report of Regional Office has been complied within three months from date of issue of the EC.

### **C. 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 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 and

NABL accredited laboratories as per revised CPCB guidelines dated August, 2018 REV 01.

- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognised 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. The project proponent shall provide primary and secondary fume extraction system at all melting 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 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 31<sup>st</sup> 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 and 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. 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.

### **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. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- iii. Dolochar generated from DRI kiln shall be used for power generation.
- iv. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused in melting Furnaces.
- v. 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.

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

**IX. Corporate Environment Responsibility**

- 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 approved 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 report 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; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (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. 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.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. 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.
- xiv. 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.

32.18 30 MTPA Iron Ore Slurry Filtration Plant to produce Filter Cake and 24 MTPA Iron Ore Pellets Plant by **M/s. Thriveni Earthmovers Pvt. Ltd** at village: Bhitargarh, Paradeep, Dist. Jagatsinghpur, Odisha [Online Proposal No. IA/OR/IND/201923/2021; File No. IAJ-11011/88/2021-IA-II(I)] – **Prescribing of Terms of Reference – regarding**

32.18.1 M/s Thriveni Earthmovers Pvt. Ltd. has made an application online vide Proposal No. IA/OR/IND/201923/2021 dated 05/03/2021 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) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

**Details submitted by Project proponent**

32.18.2 The project of M/s Thriveni Earthmovers Pvt. Ltd. is located in Village Bhitargarh, Paradip, Tehsil Kujanga, District Jagatsinghpur, State Odisha is setting up of a new 30 MTPA Iron Ore Filtration Plant to produce Filter Cake and 24 MTPA Iron Ore Pellet Plant for production of 30 MTPA Filter Cake and 24 MTPA Pellets.

32.18.3 Environmental site settings

S. No.	Particulars	Details	Remarks						
i.	Total Land	112.462 ha Govt: 112.462 ha;	Land Use: Barren land						
ii.	Existence of habitation & involvement of R&R, if any	None							
iii.	Latitude and Longitude of the Project site	Latitudes 20°17'36.75"N to 20°18'22.52"N Longitudes 86°37'13.96"E to 86°37'48.88"E.							
iv.	Elevation of the Project Site	Not provided.							
v.	Involvement of Forest land, if any	Nil							
vi.	Water body exists within the project site as well as study area	Project site: Bate river is flowing adjacent to the site.  Study Area <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Name</th> <th>Distance</th> </tr> </thead> <tbody> <tr> <td>Mahanadi River</td> <td>2.6 km</td> </tr> <tr> <td>Bay of Bengal</td> <td>5.6 km</td> </tr> </tbody> </table>	Name	Distance	Mahanadi River	2.6 km	Bay of Bengal	5.6 km	
Name	Distance								
Mahanadi River	2.6 km								
Bay of Bengal	5.6 km								
vii.	Existence of ESZ/ESA/National Park/Wildlife Sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	None within 10 km radius  Status of NBWL approval: Not applicable							

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

Sr. No.	Name	Configuration	Production, TPA
1	Iron Ore slurry filtration Plant	1 x 30 MTPA	30 MTPA
2	Pellet Plant	3 x 8 MTPA	24 MTPA



32.18.5 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	Mode of transportation
1	Iron Ore Concentrate Slurry	30.0 MTPA	Beneficiation Plant at Deojhar, Keonjhar Odisha	300 km	Slurry pipeline
2	Limestone	0.49 MTPA	Dubai, Rajgangpur, Rourkela, etc.	--	Ship/ Road/ Rail
3	Coke/ Anthracite	0.4 MTPA	Indonesia/ India	--	Ship/ Road/ Rail
4	Bentonite	0.12 MTPA	Gujarat and from local market	--	Ship/ Road/ Rail
5	Organic binder	0.0072 MTPA	From local market	--	Road / Rail

32.18.6 The water requirement for the project is estimated as 19450 m<sup>3</sup>/day which will be obtained from the Iron Ore Slurry Pipeline from Beneficiation plant proposed at Deojhar, Keonjhar District, Odisha. There will not be any groundwater usage.

32.18.7 The power requirement for the project is estimated as 100 MW which will be obtained from the State Electricity Board.

32.18.8 The capital cost of the project is Rs. 3396.51 Crores and the capital cost for environmental protection measures is proposed as Rs. 123 crores (Capital cost) and Rs. 10.2 Crores (Recurring cost). The employment generation from the proposed measures is proposed as 554 persons.

32.18.9 The project proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

32.18.10 Name of the EIA consultant: M/s Visiontek Consultancy Services Private Limited [S.No. 90, List of ACOs with their Certificate / Extension Letter no. Rev. 07, Feb. 10, 2021]

32.18.11 Proposed Terms of Reference (Baseline data collection period: Oct 2021 to Dec 2021).

Attributes	Parameters	Sampling		Remarks
		No. of Stations	Frequency	
A. Air				
a. Meteorological parameters	Temperature, relative humidity, wind direction, wind speed, cloud cover	1	Continuous during the monitoring period (3 months)	
b. AAQ parameters	PM10, PM2.5, SO2, NOx, CO	8	Twice in a week for 12	

Attributes	Parameters	Sampling		Remarks
		No. of Stations	Frequency	
			weeks	
B. Noise	Sound pressure Levels, Leq in dB(A)	8	Continuous for 24 hours, once at each location	
C. Water				
Surface water	Physico-chemical & biological parameters	5	Once during study period	
Ground water quality parameters	As per IS:10500 standards	8		
D. Land				
a. Soil quality	Soil nutrition & physical properties	5	Once during study period	
b. Land use	Satellite imagery based land use studies		Once during study period	
E. Biological				
a. Aquatic	List of flora and fauna in core zone & study area	--	Once during study period	
b. Terrestrial				
F. Socio-economic parameters	Demographic & economic status, infrastructure facilities availability, need based assessment	10	Once during study period	

32.18.12 The proposal was considered by the EAC (Industry 1) in its 32<sup>nd</sup> meeting of the Re-constituted EAC (Industry-I) held on 15<sup>th</sup>-17<sup>th</sup> March, 2021. The observations and recommendations of EAC is given as below.

#### **Observations of the Committee**

32.18.13 The EAC noted the following:

- i. Total area is 112.462 ha. Proposed site is a low lying area and requires filling up of earthen material to the tune of 35 lakh cubic metre in order to increase the level of the site up to 3 meters.
- ii. PP indicated that the source of excavation of earthen material to the tune of 35 lakh cubic metre will be met from dredging of Mahanadi river. However, ecological impacts arising out of dredging of Mahanadi river have not been explained in the pre-feasibility report. Such large filling will lead to disturbance to the existing drainage system prevailing at the site.

- iii. Site is in close proximity to the IOCL township (120 m W), habitation Udaybhata (50 m NW) and Bhitargarh (190 m, NE).
- iv. Proposed Terms of Reference do not include the prevailing meteorological conditions, and selection of sampling stations for different environmental components along with the parameters and frequency to be adopted etc.,
- v. Bata river is flows adjacent to the site and Mahanadi river is 2.6 Km from plant. HFL details of Bata river as well as Mahanadi river vis-à-vis site elevation has not been furnished.
- vi. Pulverized Anthracite Coal and FO are to be used as fuel for pellet plant which are highly polluting in nature due to presence of sulphur.
- vii. Environment impacts of the belt conveyor of 8500 TPH is proposed from plant to Port to transfer Pellets has not been included in the scope of the project.
- viii. Form I has been filled with generic information and no project specific quantities have been provided and as such no inference could be drawn for taking decision on grant of ToR.

#### **Recommendations of the Committee**

- 32.18.14 In view of the foregoing observations and after deliberations, the Committee recommended to return the proposal in present form for addressing the concerns of the Committee enumerated above.

#### **Any other item with the permission of the Chair**

- 32.19 Expansion project by setting up of lead acid battery breaking machine for recycling purpose by **M/s. Jain Metal Rolling Mills** located at S.F. No. Plot No. R-3, SIPCOT Industrial Complex, Village Pappankuppam, Taluk Gummidipoondi, **District Tiruvallur, Tamil Nadu**  
**- Clarification regarding requirement of Environment Clearance – regarding.**

- 32.19.1 **M/s. Jain Metal Rolling Mills** has sought for clarification from MoEF&CC w.r.t. requirement of Environment Clearance for their expansion project involving setting up of lead acid battery breaking machine for recycling purpose in their plant located at S.F. No. Plot No. R-3, SIPCOT Industrial Complex, Village Pappankuppam, Taluk Gummidipoondi, District Tiruvallur, Tamil Nadu.

- 32.19.2 The existing and proposed expansion project of M/s. Jain Metal Rolling Mills is given as below:

#### **A. Existing unit – Unit III**

<b>S No</b>	<b>Production description</b>	<b>Production detail</b>	<b>Nature of approval obtained</b>
	<b>Product</b>		
1.	Refined Lead/ Lead Alloy	84000 TPA	CTE and CTO from TNPCB.
	<b>By-product</b>		

S No	Production description	Production detail	Nature of approval obtained
2.	Lead Dross	6000 TPA	

**Proposed unit – Unit II**

Product				
1.	Refined Lead/ Lead Alloy	84000 TPA	CTE accorded by TNPCB. However, TNPCB sought for clarification from MoEF&CC regarding the requirement of prior environmental clearance.	
By-Product				
2.	Lead Dross	6000 TPA		
3.	Plastic Scrap	12000 TPA		
4.	Sodium Sulphate	600 TPA		
5.	Lead Scrap	48000 TPA		

32.19.3 Therefore, the unit has made representation to MoEF&CC to issue a clarification that EC is not required for the proposed expansion along with the following submission:

- i. Project proponent is a recycling company, which procures various types of lead scrap including lead acid battery scrap. The scrap is melted and refined to produce Refined Lead Ingots and Lead Alloy Ingots.
- ii. The proposed Lead Acid Battery Breaking Line would break and process Lead Acid Battery Scrap to separate lead paste and lead grid.
- iii. As per the provisions of EIA notification, 2006, the recycling industrial units registered under the HSM Rules are exempted from the purview of the EC.
- iv. In a similar case, belonging to a different company by the name of Chloride Metal Limited, Exide House, Kolkata, EAC observed the following in its 23<sup>rd</sup> meeting held on 9<sup>th</sup> and 10<sup>th</sup> October 2017:  
 “After detailed deliberations the committee observed that the proposed secondary lead recycling plant does not require prior Environmental Clearance as “the recycling industrial units registered under HSM Rules are exempted” from prior Environmental Clearance as per the provisions of EIA amendment Notification No. S.O.3067(E) dated 1st December 2009. As such the project proponent is required to obtain necessary registration / authorization under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 from the concerned State Pollution Control Board”.

**Observations and recommendations of the Committee**

32.19.4 Considering the above, the Committee was of the opinion that the matter in the instant case may be referred to IA-Policy division to take a considered view.

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**ANNEXURE –1**

**GENERIC TERMS OF REFERENCE (ToR) IN RESPECT OF INDUSTRY SECTOR**

1. **Executive Summary**
2. **Introduction**
  - i. Details of the EIA Consultant including NABET accreditation
  - ii. Information about the project proponent
  - iii. Importance and benefits of the project
3. **Project Description**
  - i. Cost of project and time of completion.
  - ii. Products with capacities for the proposed project.
  - iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
  - iv. List of raw materials required and their source along with mode of transportation.
  - v. Other chemicals and materials required with quantities and storage capacities
  - vi. Details of Emission, effluents, hazardous waste generation and their management.
  - vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
  - viii. The project proponent shall furnish the requisite documents from the competent authority in support of drawl of ground water and surface water and supply of electricity.
  - ix. Process description along with major equipment and machineries, process flow sheet (Quantitative) from raw material to products to be provided
  - x. Hazard identification and details of proposed safety systems.
  - xi. Expansion/modernization proposals:
    - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MoEF&CC/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30<sup>th</sup> May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB/PCC shall be attached with the EIA-EMP report.
    - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. **Site Details**

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

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

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

- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

**6. Environmental Status**

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (60m upstream and downstream) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

**7. Impact Assessment and Environment Management Plan**

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling – in case, if the effluent is proposed to be discharged in to the local drain, then Water Quality Modelling study should be conducted for the drain water taking into consideration the upstream and downstream quality of water of the drain.
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport

- of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
  - v. Details of stack emission and action plan for control of emissions to meet standards.
  - vi. Measures for fugitive emission control
  - vii. Details of hazardous waste generation and their storage, utilization and disposal. Copies of MOU regarding utilization of solid and hazardous waste shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
  - viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
  - ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
  - x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
  - xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
  - xii. Action plan for post-project environmental monitoring shall be submitted.
  - xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

#### **8. Occupational health**

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



- iv. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.
9. **Corporate Environment Policy**
- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
  - iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
11. To address the Public Hearing issues, provisions contained under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 30/09/2020 shall be complied.
12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
13. A tabular chart with index for point wise compliance of above ToRs.
14. The ToRs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

- i. All documents shall be properly indexed, page numbered.
- ii. Period/date of data collection shall be clearly indicated.
- iii. Authenticated English translation of all material in Regional languages shall be provided.
- iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
- vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4<sup>th</sup> August, 2009, which are available on the website of this Ministry shall also be followed.

- viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
- ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarized in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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**ANNEXURE-2**

**ADDITIONAL ToRS FOR INTEGRATED STEEL PLANT**

1. Iron ore/coal linkage documents along with the status of environmental 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<sub>10</sub> and P<sub>2.5</sub>) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM<sub>10</sub> 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 especially 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.

### **ADDITIONAL ToRs FOR PELLET PLANT**

1. Iron ore/coal linkage documents along with the status of environmental 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. 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.
4. PM(PM<sub>10</sub> and P<sub>2.5</sub>) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM<sub>10</sub> to be carried over.
5. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
6. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
7. Plan for slag utilization
8. Plan for utilization of energy in off gases (coke oven, blast furnace)
9. System of coke quenching adopted with justification.
10. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
11. Trace metals in waste material especially slag.
12. Trace metals in water

### **ADDITIONAL ToRs FOR CEMENT INDUSTRY**

1. Limestone and coal linkage documents along with the status of environmental 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 CREP guidelines must 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. Trace metals in waste material especially slag.

**ADDITIONAL ToRs FOR PULP AND PAPER INDUSTRY**

- i. A note on pulp washing system capable of handling wood pulp shall be included.
- ii. 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
- iii. 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.
- iv. 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.
- v. 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.

**ADDITIONAL ToRs FOR LEATHER/SKIN/HIDE PROCESSING INDUSTRY**

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.

**ADDITIONAL ToRs FOR COKE OVEN PLANT**

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 charging, charging emission centre, Coke quenching technology, pushing emission control.
5. Scheme for coke oven effluent treatment plant details including scheme for meeting cyanide standard.

**ADDITIONAL ToRs FOR ASBESTOS MILLING AND ASBESTOS BASED PRODUCTS**

1. Type of the project – new/expansion/modernization
2. Type of fibres used (Asbestos and others) and preference of selection from techno-environmental angle should be furnished
3. 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
4. Technology adopted, flow chart, process description and layout marking areas of potential environmental impacts
5. National standards and codes of practice in the use of asbestos particular to the industry should be furnished
6. In case of newly introduced technology, it should include the consequences of any failure of equipment/ technology and the product on environmental status.
7. In case of expansion project asbestos fibre to be measured at slack emission and work zone area, besides base line air quality.
8. In case of green field project asbestos fibre to be measured at ambient air.

**ADDITIONAL ToRs FOR METALLURGICAL INDUSTRY (FERROUS AND NON-FERROUS)**

1. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs & outputs (material and energy balance).
2. Emission from sulphuric acid plant and sulphur muck management.
3. Details on installation of Continuous Emission Monitoring System with recording with proper calibration system
4. Details on toxic metals including fluoride emissions
5. Details on stack height.
6. Details on ash disposal and management
7. Complete process flow diagram describing process of lead/zinc/copper/ aluminium, *etc.*
8. Details on smelting, thermal refining, melting, slag fuming, and Waelz kiln operation
9. Details on Holding and de-gassing of molten metal from primary and secondary aluminium, materials pre-treatment, and from melting and smelting of secondary aluminium
10. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
11. Trace metals in waste material especially slag.
12. Plan for trace metal recovery
13. Trace metals in water

## **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 its 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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**Email**

**Sundar Ramanathan**

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**Re: DRAFT MOM OF 32 EC MEETING HELD ON 15-17 MARCH 2021**

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**From :** cnpandey@iitgn.ac.in

Fri, Mar 19, 2021 05:13 PM

**Subject :** Re: DRAFT MOM OF 32 EC MEETING HELD ON 15-17  
MARCH 2021

 1 attachment

**To :** Sundar Ramanathan <r.sundar@nic.in>

**Cc :** Sujit Kumar Bajpayee <sujit.baju@gov.in>

Dear Mr. Sundar,

Please find herewith the the approved MoM of the 32nd EAC meeting held online on 15th to 17 March 2021. Please take further necessary action for uploading the same on Parivesh.

I appreciate the efforts put by you and other members in finalising the MOM so quickly.

With best wishes,

C. N. Pandey,

Chairman, EAC (IndustryI), MoEFCC, GoI.