

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

**Summary record of the thirty third (33<sup>rd</sup>) meeting of Re-Constituted Expert Appraisal Committee (REAC) held on 30<sup>th</sup>-31<sup>st</sup> March, 2021 for environment appraisal of Industry-1 sector projects constituted under the provisions of Environment Impact Assessment (EIA) notification, 2006.**

The thirty third 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 **30<sup>th</sup>-31<sup>st</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	30/03/2021	31/03/2021
1.	Dr. Chhavi Nath Pandey	Chairman	Present	Present
2.	Dr. M.K. Gupta, Director, CPPRI.	Member	Present	Present
3.	Dr. Siddharth Singh, Scientist 'E' IMD.	Member	Present	Present
4.	Dr. Jagdish Kishwan	Member	Present	Present
5.	Dr. G.V. Subramanyam	Member	Present	Present
6.	Dr. Tejaswini Ananth Kumar	Member	Present	Present
7.	Shri. Ashok Upadhyaya	Member	Present	Present
8.	Shri. Rajendra Prasad Sharma	Member	Present	Present
9.	<i>Dr. Sanjay Deshmukh</i>	<i>Member</i>	<i>Absent</i>	<i>Absent</i>
10.	Prof. S.K. Singh	Member	Present	Absent
11.	<i>Dr. R. Gopichandran</i>	<i>Member</i>	<i>Absent</i>	<i>Absent</i>
12.	Shri Jagannadha Rao Avasarala	Member	Present	Present
13.	Shri. J.S.Kamyotra	Member	Present	Present
<b>Special Invitees from EAC – Violation</b>				
14.	Shri. K Gowrappan	Member	For appraisal of item no. 33.1 of M/s. ESL	
15.	Shri. Ashok Agrawal	Member		
<b>Officials from MoEF&amp;CC</b>				
16.	Shri. Sundar Ramanathan	Member Secretary	Present	Present
17.	Dr.Mahendra Phulwaria	Scientist 'C'	Present	Present

After welcoming the Committee Members, discussion on each of the agenda items was taken up. The minutes of 32<sup>nd</sup> meeting held during 15-17<sup>th</sup> March, 2021 were confirmed by the EAC as already uploaded on PARIVESH except the following:

- 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**

Minutes uploaded on PARIVESH	To be read as
<b>A. Specific conditions:</b> ii. <b>45.376 ha</b> land shall be brought under green belt development.	<b>A. Specific Conditions:</b> ii. <b>18.363 ha</b> land shall be brought under green belt development.

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

33.1 Integrated Steel Plant for achieving 3.0 MTPA Crude Steel production [Coke Oven (HRT): 2×0.5 MTPA, Sinter Plant: 2×105 m<sup>2</sup> (2.744 MTPA), Pellet Plant: 2.2 MTPA, Blast Furnace: 3 nos (1×1050 m<sup>3</sup>, 1×350 m<sup>3</sup>, 1×1700 m<sup>3</sup>); (3.0 MTPA), SMS: 4×60 T BOF, 4×T LRF, (2×5)+(2×4) Strand, Billet caster: (Pig Casting: 0.35 MTPA, Rebar Mill: 1.9 MTPA & Wire Rod Mill :0.5 MTPA), DI Pipe: 0.4 MTPA, Oxygen Plant (2 nos): 1990 MTPA, Power Plant: 2× 60 MW, 1×40 MW, (3× 130 TPH CFBC, 4×75 TPH WHRB), Lime Plant: (1× 600 TPD)+ (1× 800 TPD) & Dolo Plant: 150 TPD] by **M/s. Electrosteel Steels Limited (ESL)** located at Village Siyaljori, Bhagabandh, Budhibinor, Alkusha, Dhandabar, Bandhdih, Hutupathar, **District- Bokaro, Jharkhand** [Online Proposal No. IA/JH/IND/203094/2020; File No. J-11011/137/2006- IA.II(I)] – **Environment Clearance** – regarding.

33.1.1 M/s. Electrosteel Steels Limited (ESL) has made an online application vide proposal no. IA/JH/IND/203094/2020 dated 14/03/2021 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.

33.1.2 It was apprised to the EAC that aforesaid proposal was transferred from IA-Violation sector to IA-Industry 1 sector on 22/03/2021 for appraisal by the sectoral EAC. With the prior consent of the Chairman, EAC – Industry 1 sector, following members from EAC – Violation sector have been co-opted for appraisal of the instant proposal consideration.

- i. Shri K. Gowrappan
- ii. Shri. Ashok Agrawal

**Details submitted by Project proponent**

33.1.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord
03/03/2020	35 <sup>th</sup> of EAC (Violation) meeting held on 6 - 7 <sup>th</sup> August 2020	Terms of Reference	25/08/2020

33.1.4 The project of M/s. Electrosteel Steels Limited Located at Siyaljori, Bhagabandh, Budhibinor, Alkusha, Dhandabar, Bandhdih, Hutupathar Villages, Tehsil Chandankiyari, District-Bokaro, Jharkhand State is for Integrated Steel Plant for achieving 3.0 MTPA Crude Steel production [Coke Oven (HRT): 2×0.5 MTPA, Sinter Plant: 2×105 m<sup>2</sup> (2.744 MTPA), Pellet Plant: 2.2 MTPA, Blast Furnace: 3 nos (1×1050 m<sup>3</sup>, 1×350 m<sup>3</sup>, 1×1700 m<sup>3</sup>); (3.0 MTPA), SMS: 4×60 T BOF, 4×T LRF, (2×5)+(2×4) Strand, Billet caster: (Pig Casting: 0.35 MTPA,

Rebar Mill: 1.9 MTPA & Wire Rod Mill :0.5 MTPA), DI Pipe: 0.4 MTPA, Oxygen Plant (2 nos): 1990 MTPA, Power Plant: 2× 60 MW, 1×40 MW, (3× 130 TPH CFBC, 4×75 TPH WHRB), Lime Plant: (1× 600 TPD)+ (1× 800 TPD) & Dolo Plant: 150 TPD].

33.1.5 Environmental Site Settings

S. No.	Particulars	Details		
i.	Total land	374.81 ha [Forest Land: 184.23 ha Private Land: 160.57 ha Government land: 30.01 ha]		
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Entire land of 374.8 ha is under the possession of M/s Electrosteel Steels Limited		
iii.	Existence of habitation & involvement of R&R, if any.	Nil		
iv.	Latitude and Longitude of the project site	Points	Latitude	Longitude
		B1	23° 37' 34.882" N	86° 17' 10.618" E
		B2	23° 37' 44.894" N	86° 17' 10.352" E
		B3	23° 37' 58.620" N	86° 17' 4.271" E
		B4	23° 38' 29.082" N	86° 17' 8.605" E
		B5	23° 38' 56.873" N	86° 16' 41.656" E
		B6	23° 38' 55.645" N	86° 16' 23.950" E
		B7	23° 39' 4.181" N	86° 16' 32.227" E
		B8	23° 39' 18.545" N	86° 15' 33.795" E
		B9	23° 39' 47.631" N	86° 14' 45.169" E
		B10	23° 39' 28.177" N	86° 14' 53.172" E
		B11	23° 38' 30.192" N	86° 17' 22.459" E
		B12	23° 38' 10.087" N	86° 17' 31.281" E
		B13	23° 38' 20.592" N	86° 17' 28.669" E
		B14	23° 38' 12.500" N	86° 18' 2.725" E
		B15	23° 39' 1.750" N	86° 17' 49.001" E
		B16	23° 39' 15.171" N	86° 18' 13.900" E
		B17	23° 39' 51.492" N	86° 18' 6.096" E
		B18	23° 39' 49.408" N	86° 18' 16.227" E
		B19	23° 39' 10.234" N	86° 18' 33.998" E
		B20	23° 38' 11.555" N	86° 18' 19.082" E
		B21	23° 38' 6.667" N	86° 18' 44.458" E
		B22	23° 37' 52.733" N	86° 18' 39.599" E
v.	Elevation of the project site	171 – 193m AMSL		
vi.	Involvement of Forest land if any.	Yes Project involves diversion of 184.23 ha forest area and stage I forest Clearance has obtained vide File no 8-21/2019-FC dated 17/12/2019.		
vii.	Water body exists within the project site as well as study area	<b>Project site:</b> Yes Seasonal Nala <b>Study area:</b>		

S. No.	Particulars	Details
		i. Damodar River at 5.5 km in North ii. Ijri River along the southern boundary of plant iii. Katri Nadi at 6.0km in NE iv. Gobai Nadi at 7.0 km in SE v. Gagra Reservoir at 5.5 km in SW vi. Baramacha Jhor at 3.5 km in NW
viii.	Existence of ESZ/ ESA/ national park / wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil.

33.1.6 The project was earlier accorded Environment Clearance vide file no J-11011/137/2006- IA II (I) dated 21/02/2008 which was revoked by the MoEF&CC on 21/09/2018 on account of shifting of project site beyond 5.3km from the originally approved location, encroachment of forest & Government land and non-compliance to stipulated EC conditions. Presently, the matter is under sub-judice.

33.1.7 Implementation status of the EC dated 21/02/2008:

Sl. No.	Facilities	Units	As per EC dated 21/02/2008	Implementation Status as on 25/03/2021	Present capacity
1.	Coke Oven	CO1 – NR (Vertical)	0.5 MTPA (4 x 35 Ovens)	operational	0.5 MTPA
		CO2 - NR (Horizontal)	0.5 MTPA (8 x 15 Ovens)	Partially Built	--
2.	Sinter Plant	SP1, SP2 (augmented)	2.744 MTPA (2x105m <sup>2</sup> )	Operational	2.74 MTPA
3.	Blast Furnace	BF1	1050 m <sup>3</sup>	Partially built	--
		BF2 & BF3	1.57 MTPA (1050 m <sup>3</sup> + 350 m <sup>3</sup> )	Operational	1.57 MTPA
4.	Pig Caster	--	0.35 MTPA	Operational	0.35 MTPA
5.	SMS	SMS1	1.5 MTPA (2x60 T BOF + 1 x60 T LRF + 2 x 5 Strand Billet Caster)	Operational	1.5 MTPA
6.	Calcination Plant	LCP1	1x800 TPD	Operational	950 TPD
		DCP1	1x150 TPD	operational	
7.	DI Pipe Plant	DIP	0.22 MTPA	Operational	0.22 MTPA
8.	Rolling Mills	WRM	0.5 MTPA	Operational	1.2 MTPA
		Rebar	0.7 MTPA	Operational	
9.	CPP	Coal Based	80 MW (2x130 TPH)	Operational	80 MW
		Waste Heat recovery	2 x 75 TPH	Operational	
10.	Oxygen Plant	ASP1	840 TPD	Operational	840 TPD
11.	RMHS	--	Stacker-cum-	Partially Built	--

Sl. No.	Facilities	Units	As per EC dated 21/02/2008	Implementation Status as on 25/03/2021	Present capacity
			Reclaimer: 01 (Iron Ore)		

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

S No	Plant	Unit	Present capacity/ Configuration	Proposed capacity/ Configuration	Final capacity/ Configuration	Remarks
1.	Coke Oven	CO1 – NR (Vertical)	0.5 MTPA (4 x 35 Ovens)	--	1.0 MTPA (4 x 35 Ovens + 8 x 15 Ovens)	Finishing the Partially Built Horizontal Coke CO2 Oven Battery
		CO2 - NR (Horizontal)	--	0.5 MTPA (8 x 15 Ovens)		
2.	Sinter Plant	SP1, SP2 (augmented)	2.744 MTPA (2 x 105 m <sup>2</sup> )	--	2.744 MTPA (2 x 105 m <sup>2</sup> )	No Change
3.	Pellet Plant	--	--	2.2 MTPA	2.2 MTPA	New unit
4.	Hot Metal-Blast Furnace	BF1	1050 m <sup>3</sup> (Partially built)	1.90 MTPA (1700 m <sup>3</sup> )	3.47 MTPA (1x1700 m <sup>3</sup> + 1x1050 m <sup>3</sup> + 1x350 m <sup>3</sup> )	Dismantling the Partially built BF1 and installing larger capacity BF.
		BF2 & BF3	1.57 MTPA larger capacity BF. (1050 m <sup>3</sup> + 350 m <sup>3</sup> )	--		
5.	Pig Caster	--	0.35 MTPA	--	0.35 MTPA	No Change
6.	Crude steel-SMS	SMS1	1.5 MTPA (2 x 60 T BOF + 1 x 60 T LRF + (2 x 5) Strand Billet Caster)	--	3.0 MTPA (4 x 60 T BOF + 4 x 60 T LRF + (2 x 5) + (2 x 4) Strand Billet Caster)	New SMS2 similar to existing SMS1
		SMS2	--	1.5 MTPA (2 x 60 T BOF + 3 x 60 T LRF + (2 x 4) Strand Billet Caster)		
7.	Calcination Plant	LCP1	800 TPD	--	1550 TPD (1x800 TPD + 1x150 TPD + 1 x 600 TPD)	Installation of a new Vertical shift Lime Kiln of 600 TPD capacity
		LCP2	--	600 TPD		
		DCP1				
8.	DI Pipe Plant	DIP1	0.22 MTPA		0.4 MTPA (1x0.22 MTPA + 1x0.18 MTPA)	Expansion of existing DIP Plant by 0.18 MTPA
		DIP2		0.18 MTPA		
9.	Rolling Mills	WRM1	0.5 MTPA	--	2.4 MTPA (1x0.5 MTPA + 1x0.7 MTPA + 1x1.2 MTPA)	Installation of New Rebar Mill of 1.2 MTPA Capacity
		Rebar1	0.7 MTPA	--		
		Rebar2	--	1.2 MTPA		
10.	Captive Power Plants	Coal based	80 MW (2 x 130 TPH)	40 MW (1 X 130 TPH)	120 MW (3 x 130 TPH)	Installation of a new 130 TPH CFBC boiler and a 160 TPH BF gas based Boiler. Waste heat recovery from
		Waste Heat Recovery	2 X 75 TPH	2 X 75 TPH	4 X 75 TPH	
		BF Gas based	--	1 x 40 MW (160 TPH)	40 MW (160 TPH)	

S No	Plant	Unit	Present capacity/ Configuration	Proposed capacity/ Configuration	Final capacity/ Configuration	Remarks
						new Coke Oven Batteries
11.	Oxygen Plant	--	840 TPD	1150 TPD	1990 TPD (1x840 TPD + 1x1150 TPD)	Installation of a new air separation unit of 1150 TPD.
12.	RMHS		Stacker-cum-reclaimer: 01	Stacker-cum-reclaimer: 02 Wagon Tippers: 02 Truck tippers: 02	Stacker-cum-reclaimer: 03 Wagon Tippers: 02 Truck tippers: 02	Installation of 2 new Stacker-cum-reclaimers and augmentation of existing stacker-reclaimer, installation of new railway wagon tippers and truck tippers

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

SN	Raw material	Quantity required per annum		Sources	Distance from site (Kms)	Mode of Transportation
		Existing (At 1.5 MTPA Stage) (Tonnes)	Proposed (At 3.0 MTPA Stage) (Tonnes)			
<b>Coke Ovens</b>						
1	Coking Coal	671140	1342240	Imported (Australia, USA & Canada)	250	Sea / Rail
<b>Sinter Plant</b>						
2	Iron ore fines	1884800	1884800	Indigenous (Kendujhar & Sundargarh, Odisha)	200	Rail
3	Lime Stone Fines	284600	284600	Indigenous (Jukehi-Katni-Niwar, Central India)	600	Rail
4	Dolomite Fines	147000	147000	Indigenous (Sundargarh & Katni-Bilaspur)	600	Rail
5	Quartzite	30300	30300	Purchased locally	100	Rail
<b>Pellet Plant</b>						
6	Lime Stone	-	100800	Indigenous (Jukehi-Katni-Niwar, Central India)	200	Rail
7	Bentonite	-	21700	Purchased locally	50	Rail
8	Iron ore fines	-	2115900	Indigenous (Kendujhar & Sundargarh, Odisha)	200	Rail
9	Coal	-	63800	Imported	250	Sea / Rail
10	Dolomite	-	100800	Indigenous (Sundargarh & Katni-Bilaspur)	600	Rail

SN	Raw material	Quantity required per annum		Sources	Distance from site (Kms)	Mode of Transportation
		Existing (At 1.5 MTPA Stage) (Tonnes)	Proposed (At 3.0 MTPA Stage) (Tonnes)			
<b>Blast Furnace</b>						
11	Iron ore lump	614600	319000	Indigenous (Kendujhar & Sundargarh, Odisha)	200	Rail
12	Purchased Coke	70000	336600	Purchased locally	100	Rail
13	PCI Coal	209700	477500	Imported (Australia, Russia & Indonesia)	250	Sea /Rail
14	Lime stone	13400	85900	Indigenous (Jukehi-Katni-Niwar, Central India)	600	Rail
15	Dolomite	23200	76800	Indigenous (Sundargarh & Katni-Bilaspur)	600	Rail
16	Quartzite	60400	115500	Purchased locally	100	Rail
<b>Steel Melting Shop</b>						
17	Iron Ore	61700	80300	Indigenous (Kendujhar & Sundargarh, Odisha)	200	Rail
18	Ferro Alloys	9900	9900	Purchased locally	100	Rail
<b>Lime &amp; Dolo Kilns</b>						
19	Limestone	428000	835000	Imported (UAE & Oman)	250	Sea / Rail
20	Dolomite	90000	90000	Indigenous (Sundargarh & Katni-Bilaspur)	600	Rail
<b>DI Pipe plant</b>						
21	Magnesium	330	600	Imported (China)	250	Sea/Road
<b>Captive Power Plant &amp; Boilers</b>						
22	Boiler Coal	438000	657000	Indigenous (Tata mines, CCL etc.)	250	Rail

33.1.10 The water requirement for the project is estimated as 54840 m<sup>3</sup> /day, which will be obtained from the Tanughat Dam on Damodar River through pipeline. The agreement has been made vide no B758440 on 21/01/2012 with Water Resources Department (WRD), Govt. of Jharkhand for drawl of Surface water.

33.1.11 The power requirement for the project is estimated as 218 MW, out of which 120 MW will be generated from the augmented coal, based CPP, 40 MW will be generated from the BF gas power plant and balance will be procured from Damodar Valley Corporation (DVC). Agreement with DVC has made vide consumer no 34317 dated 20/07/2012.

<b>Present Power Requirement</b>		<b>135 MW</b>
1	Present CPP Generation	80 MW

2	Present DVC Import (for operation) (DVC Contract Demand is 65 MVA)	55 MW
<b>Future Power Requirement</b>		<b>218 MW</b>
1	Future CPP Generation with 3 CFBC & BF gas based Power plant	160 MW (120 MW + 40 MW)
2	Future DVC Import for 3.0 MPTA (Present DVC Contract Demand is 65 MVA)	58 MW

### 33.1.12 Baseline Environmental Studies:

Period	Winter Season 2019-20 (December, 2019 to February, 2020) Additional One Month during Post monsoon 2020 (October 2020)	
AAQ parameters at 8 locations	Winter Season 2019-20	Post monsoon 2020 (1 Month)
	PM <sub>2.5</sub> = 25 to 50 µg/m <sup>3</sup> PM <sub>10</sub> = 43 to 81 µg/m <sup>3</sup> SO <sub>2</sub> = 11 to 20.8 µg/m <sup>3</sup> NO <sub>x</sub> = 11.9 to 28 µg/m <sup>3</sup>	PM <sub>2.5</sub> = 26 to 64 µg/m <sup>3</sup> PM <sub>10</sub> = 54 to 116 µg/m <sup>3</sup> SO <sub>2</sub> = 5.9 to 18.6 µg/m <sup>3</sup> NO <sub>2</sub> = 12.6 to 25.3 µg/m <sup>3</sup>
AAQ modelling ( Max Incremental GLCs due to Proposed New Units)	Winter Season 2019-20	Post monsoon 2020
	PM <sub>10</sub> = 5.86 µg/m <sup>3</sup> PM <sub>2.5</sub> = 4.98 µg/m <sup>3</sup> SO <sub>2</sub> = 8.85 µg/m <sup>3</sup> NO <sub>x</sub> = 8.24 µg/m <sup>3</sup>	PM <sub>10</sub> = 10.37 µg/m <sup>3</sup> PM <sub>2.5</sub> = 8.79 µg/m <sup>3</sup> SO <sub>2</sub> = 10.75 µg/m <sup>3</sup> NO <sub>x</sub> = 10 µg/m <sup>3</sup>
Ground water quality at 8 locations	Winter Season 2019-20	Post monsoon 2020
	pH: 7.5 to 7.9, Total Hardness: 80 to 464 mg/l, Chlorides: 64 to 241 mg/l, Fluoride: 0.16 to 0.76 mg/l. Heavy metals: within limits.	pH: 6.58 to 6.98, Total Hardness: 84 to 588 mg/l, Chlorides: 18 to 178 mg/l, Fluoride: 0.754 to 1.35 mg/l. Heavy metals: within Permissible limits except at Bansa & Modidih
Surface water quality at 8 locations	Winter Season 2019-20	Post monsoon 2020
	pH: 7.3 to 7.8; DO: 5.2 to 5.7 mg/l and BOD: 4.1 to 7.5 mg/l.	pH: 6.77 to 7.6; DO: 5.1 to 6.9 mg/l and BOD: 3 to 4 mg/l.
Noise levels	Winter Season 2019-20	Post monsoon 2020
	Day time: 42.3 to 64.7 Night time : 36.4 to 54.2	Day time: 37.2 to 55.6 Night time : 36.6 to 47.3
Traffic assessment study findings	Existing infrastructure have sufficient capacities. Additionally, in future it has been proposed that the transportation will be undertaken by railway mode.	
Flora and fauna	Schedule I fauna (Indian Pangolin, Indian Rock Python) present in Study Area. Site-specific Wildlife Conservation Plan has been prepared and submitted for approval.	

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



**Solid waste**

S No	Type of Waste	Generation (TPA)			Mode of Utilization/ Disposal
		Existing	Proposed	Total	
<b>A.</b>	<b>Coke Oven</b>				
1.	Coke breeze	75800	75800	151600	Re-used in sinter making
<b>B.</b>	<b>Blast Furnace (BF)</b>				
2.	Blast Furnace Granulated slag	535600	649800	1185400	Selling to Cement Plants
3.	Blast Furnace Flue Dust	9910	15530	25440	Reused in sinter making
4.	Blast Furnace GCP Dust	35777	56068	91845	Reused in sinter making
<b>C.</b>	<b>Steel Melting Shops</b>				
5.	GCP sludge	33600	75384	108984	Re-used in sinter making
6.	Ladle Furnace (LF) Slag	275610	257610	533220	<ul style="list-style-type: none"> <li>• Re-used in sinter making</li> <li>• Filling of low lying areas and road making</li> </ul>
<b>D.</b>	<b>Rolling Mill</b>				
7.	Mill scale	12061	19096	31157	Re used in Sinter
8.	Scraps	250000	123400	373400	Re used in SMS
<b>E.</b>	<b>Lime calcinations Plants</b>				
9.	Dolo undersize Fines	22974	23000	45974	Re-used in Sinter Plant.
10.	Dolo Sinter Dispatch	8875	8900	17775	Re-used in Sinter Plant.
11.	Lime undersize Fines	37537	65690	103227	Re-used in Sinter Plant.
12.	Lime Sinter Dispatch	54039	94568	148607	Re-used in sinter making
13.	Bag house Fines (Lime/ Dolo dust)	5847	10232	16079	Re-used in sinter making
<b>F.</b>	<b>Refractory</b>				
14.	Used Refractory Bricks	1,477	3310	4787	Sold to Refractory manufacturers
<b>G.</b>	<b>Captive Power Plants</b>				
15.	Bottom Ash	56,272	42204	98476	Sold to Cement Plants
16.	Fly Ash	179699	134774	314473	Sold to Cement Plants

**Hazardous waste**

S No	Category	Quantity (TPA)			Method of disposal
		Existing	Proposed	Total	
1.	Used oil & Grease	11	11	22	Sold to Authorized

S No	Category	Quantity (TPA)			Method of disposal
		Existing	Proposed	Total	
2.	Zinc Dust	40	40	80	Recycler
3.	Used Batteries	10	10	20	
4.	Waste barrels containing hazardous wastes	10	10	20	
5.	Asbestos containing materials	5	5	10	
6.	ETP Sludge	30	30	60	Sent to TSDF Facility

33.1.14 Public Consultation:

<b>Details of Advertisement given</b>	12/11/2020
<b>Date of Public Consultation</b>	16/12/2020
<b>Venue</b>	Maitri Kreedha Sthal (Ground), 16 Khata, Plot No.-21, Siyaljori, Tehsil- Chandankiyari, Dist. Bokaro, Jharkhand
<b>Presiding Officer</b>	Chief Municipal Commissioner, Chaas Nagar Nigam, Bokaro
<b>Major Issues Raised</b>	(i) Employment (ii) Education, Health facility (iii) Air Pollution control (iv) Monitoring system for pollution control measures (v) Area Development along with road construction.

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

S No	Activities	FY 21-22		FY22-23		FY23-24		Total	
		Annual Qty	Amount (Lakhs)	Annual Qty	Amount (Lakhs)	Annual Qty	Amount (Lakhs)	Annual Qty	Amount (Lakhs)
1.	Construction of 5 kms of Road from Four (4) lane to Gidht	5 km	275					5km	275
2.	Vedanta ESL Skill School has been established to provide job linked vocational training to 675 youths from nearby villages in next 3 years	225	60	225	60	225	60	550	180
3.	Under project JIVIKA 1500 SHG Women will be linked sustainable livelihood through mushroom cultivation, phenyl production, puff rice production, etc. in next 3 years	500	40	500	40	500	40	1500	120
4.	Project WADI will be started for 500	200	30	300	50	00	45	500	125

S No	Activities	FY 21-22		FY22-23		FY23-24		Total	
		Annual Qty	Amount (Lakhs)	Annual Qty	Amount (Lakhs)	Annual Qty	Amount (Lakhs)	Annual Qty	Amount (Lakhs)
	farmers in which 500 acres of land will be utilized for orchard development, irrigation facilities & inter-cropping to ensure the secured income								
5.	Siyaljori School will be Upgraded with better infrastructure & other facilities	0	0	01	24	0	0	01	24
6.	Under Project PRERNA The students will be supported for engineering entrance preparations under Vedanta Excel 30 programme and they will also be awarded with the PRERNA Scholarship based on their merit	30	40	30	40	30	40	90	120
7.	Government ITI of Chandankyari Block will be upgraded with infrastructure & Supported	0	0	0	0	01	100	01	100
8.	Construction of Health Clinic for Siyaljori Village	0	0	0	0	01	25	01	25
9.	Under project AAROGYA Existing Health Sub Centre at Dhandabar village will renovated and converted into Vedanta ESL Health Clinic with facilities of treatment, medicines and lab testing etc. Mobile Health Van will be attached with the clinic to provide free healthcare facilities in surrounding villages	01	52	Existing centre	52	Existing centre	52	01	156
10.	Greenbelt Development, Air & water monitoring and other pollution control measures	GB Development & plant distribution-50000	260	Wind curtain installation along the villages	310	Mechanical Sweeper for public road	110	As per plan	680
11.	Installation of High	HFTR -01	400		00	Mist	125	--	525

S No	Activities	FY 21-22		FY22-23		FY23-24		Total	
		Annual Qty	Amount (Lakhs)	Annual Qty	Amount (Lakhs)	Annual Qty	Amount (Lakhs)	Annual Qty	Amount (Lakhs)
	Frequency Transformer Rectifier					cannon			
12.	Replacement of OG system	OG system	600	00	00	Gully plugging	70	--	670
<b>Total</b>									<b>3000.0</b>

33.1.15 The capital cost of the project is Rs 19374 Crores and the capital cost for environmental protection measures is proposed as Rs 609 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 58.2 Crores. The employment generation from the proposed project / expansion is 13200 persons. The details of cost for environmental protection measures is as follows:

S No	Description	Capital Cost (in Cr.)		Recur. Cost/ annum (In Cr.)
		Existing Project	Proposed Project	
1.	Air & Noise Pollution Control Systems	332	156	58
2.	Water Conservation & Pollution Control Solid/ Waste Management System	50.41	39	
3.	Rainwater harvesting Green belt development	0.89	1.2	20 Lakhs for 5 Years
4.	<b>Sub-Total Cost for Environmental Protection Measures</b>	<b>383</b>	<b>196</b>	<b>58.2</b>
5.	EMP cost for addressing PH issues	0.0	30	0.0
	Total	<b>383</b>	<b>226</b>	<b>58.2</b>

33.1.16 Greenbelt will be developed in 124 ha (Existing 74 ha + Proposed 50 ha) which is about 33.08 % of the total project area. A 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. Additionally, total no. of 1,25,000 saplings will be planted and nurtured in 50 hectares in 3 years.

33.1.17 Summary of violation under EIA, 2006/court case/show cause/direction if any, related to the project under consideration are as follows:

Details of Court Cases		Case 1	Case 2	Case 3	Case 4
a.	Name of the Court (Districts Court / High Court / NGT / Tribunals / Supreme Court of India)	District Court of Bokaro	Supreme Court of India, High Court of Jharkhand	District Court of Bokaro	High Court of Jharkhand
b.	Name of the Sub-court	Chief Judicial Magistrate	-	Principal District and Sessions Judge	-
c.	Case No.	Complaint Case	WPC 4850 of 2018 and WPC	Title Appeal 33/2007	WPC 2685 of 2020

Details of Court Cases		Case 1	Case 2	Case 3	Case 4
		941/2020	1873 of 2018. SLP 11226 & 11227 of 2020.		
d.	Orders / Directions of the court	Cognizance order of 21.12.2020	The writs are pending for final disposal.  Interim orders have been vacated, but have been stayed by the Hon'ble Supreme Court in the SLP.	Land in suit held to be Raiyati Land and not Forest Land. This land and such other similar patches of land are within the plant premises, where the Forest Department claims to be forest land.	Currently pending for bench allotment.
e.	Case Details	U/S 15 of the Environment (Protection) Act, 1986	Writ case filed against EC revocation order and non-acceptance of CTO application.  Stay orders have been granted from 2018 till 2020, and the main writ is under adjudication.	Title Suit in favour of the Company and Raiyats. Divisional Forest Officer has filed an appeal, which is pending adjudication. No stay order has been granted.	Writ Petition filed for expunging specific comments from ToR which prescribe that the management is a willful defaulter.

### **Violation aspect**

33.1.18 In compliance to the specific ToR No. i, the SPCB has undertaken credible action against M/s.ESL under the provisions of Environment (Protection) Act, 1986, by filing a court case no. 941 of 2020 before the Hon'ble Court of Chief Judicial Magistrate, Bokaro.

33.1.19 Summary of damage remediation plan and Natural Community Resource Augmentation Plant

S.No.	Activity proposed	Year 1	Year 2	Year 3	Total (in Crores)
a.	Damage remediation plan	12.74	21.35	26.08	60.17
b.	Natural Resources Augmentation plan	3.4	10.9	10.35	24.65
c.	Community Resources Augmentation plan	20.315	46.08	24.105	90.5
	<b>Total</b>	<b>36.455</b>	<b>78.33</b>	<b>60.535</b>	<b>175.32</b>

33.1.20 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].

### **Site inspection report from Regional Office of MoEF&CC**

33.1.21 Regional Office of MoEF&CC, Ranchi visited ESL Steel Ltd. on 12/11/2020 for site inspection as per the Specific ToR and issued the site Visit Report vide no. 103-564/ROR-

2020/4409 on 18/12/2020. Action Taken Report (ATR) on the observations made by RO was submitted to RO, MoEF&CC on 28/12/2020 which have been verified by the RO by conducting site visit on 24/02/2021. Further, updated ATR was submitted to RO on 25/02/2021. Thereafter, RO submitted its report to the Ministry on 08/03/2021. As per the RO inspection report dated 08/03/2021, the observations are reproduced as below:

- i. Mist cannon not observed in the raw material unloading area.
- ii. Water sprinkler has been provided to part of the raw material handling area and feeding area not to all the material handling area and feeding area.
- iii. Unloading station (truck tippler) has not been observed at the site. Covered shed not observed for the raw material storage, however, part of the material was found to be covered with tarpaulin and partly uncover, which may be a source of fugitive emission.
- iv. Runoff water collection arrangement all over the RHMS area yet to be done.
- v. Online stack monitoring facility as per the norms yet to be provided. Manual monitoring data furnished from stock house de-dusting, cast house de-dusting and transfer house de-dusting stack of blast furnace unit 2 for 28.09.20 and 08.10.20 and varies from 65.7 mg/m<sup>3</sup> to 80.4 mg/m<sup>3</sup> which is exceeding the permissible norm of 50 mg/Nm<sup>3</sup>.
- vi. Separate online monitoring for each boiler yet to be provided. Online monitoring for SO<sub>2</sub> and NO<sub>x</sub> as per the norms of power plant has not been provided. Online monitoring to WHRB 1 and WHRB 2 yet to be provided.
- vii. Online monitoring system for treated effluent at ETP yet to be provided.
- viii. Covered shed not observed for the raw material storage, however, part of the material was found to be covered with tarpaulin and partly uncover, which may be a source of fugitive emission.
- ix. Green belt as per CPCB norms along the boundary of the plant has not been developed.
- x. Online monitoring analyzer to all the stacks as per the norms yet to be provided.
- xi. PM<sub>10</sub> and PM<sub>2.5</sub> was higher than the norms of annual average in three locations (Near Coke Oven, Near DI Pipe plant Area and Near RMHS). Statistically interpreted data for CAAQMS has not been furnished for the working stations. As per the online monitoring data for dated 24.02.2021, PM<sub>2.5</sub> and PM<sub>10</sub> data displayed as 0.0 for 16 khata online monitoring station.
- xii. Unutilized fly ash dump also observed. Part of the dump has been reclaimed.
- xiii. Run off water collection facility has not been provided at the fly ash dumps. Details of permission from state pollution control board have not been furnished for dumping of fly ash. Another solid waste dump was observed at the premises seems like fly ash dump.
- xiv. Gross coke production (5%Moist) reported to be 644610 MT during 2019-20 and pig Iron production reported to be 447807 MT during 2015-16 whereas the capacity of Coke oven and pig caster reported to be 0.5 MTPA and 0.35 MTPA respectively.
- xv. Fly ash dumps exist indicating unutilized fly ash.

33.1.22 M/s Electrosteel Steels Limited was submitted an online application vide proposal no. IA/JH/IND/192305/2020 dated 11/01/2021 **under violation category** to IA -Violation sector and it was considered by the EAC (Industry 1) in its 30<sup>th</sup> meeting of the Re-constituted EAC

(Industry-I) held on 10<sup>th</sup> – 11<sup>th</sup> February, 2021. The observations and recommendations of EAC is given as below:

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

33.1.23 The Committee noted the following:

- I. Instant proposal was considered on merit by EAC – Violation and confirmed the case to be of violation of the EIA Notification, 2006. Accordingly, ToR was prescribed by EAC – Violation and granted by MoEF&CC.
- II. Significant observations have been reported by RO with respect to the environmental compliance status of the existing units.
- III. Presentation made before the does not enumerated the findings of the EIA study and covered only observation of EAC – Violation made during 6-7th August, 2020.
- IV. There are several court cases pending before the Hon’ble Supreme Court, Hon’ble High Court and Hon’ble District Court with respect to the proposal under consideration. However, the details of these cases and its present status have not been enumerated in the EIA report in compliance to the generic ToR no. 12.
- V. Authenticated English translation of the Public Consultation proceedings have not been furnished as per the general point no. iii of the ToR letter dated 25/08/2020. Action plan to address the public hearing issues as per the MoEF&CC O.M. dated 30/09/2020 with physical targets have not been furnished.
- VI. Damage Assessment, remediation and NCRAP shortcomings
  - i. Saving in EMP cost: This should be revised considering 2017-18 and 2018-19 for monitoring and as well for maintenance.
  - ii. Ecological Attributes to be considered during construction are as following: Air, Water, Land use, solid waste, OHS, noise/Vibration, impact on neighbouring infra and Socio-economic impact:
    - a. Air: The progressive built up area of the plant year wise needs to be considered commencing from 2008, construction labour used and their consumption and SW, the period, etc., and accordingly damage assessment is to be assessed and corresponding remediation equating the same (PM10, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>). The discounted rate of 20% of EU 28/CPCB shall be revised to 30% considering the inflation as has been assumed in case of CPCB Guideline. The impacted area boundary shall be revisited as discussed, on the eastern side of northern boundary. Likewise, Damage assessment for operation period year wise and cumulative needs to be calculated for all the above referred attributes inclusive of RA&DM. Computation and assessment details for one sample year shall be submitted during operation.
    - b. Land: Agricultural loss shall be considered @Rs:12500/-; per acre, considering MSP from Bokaro Dist. report. Agricultural production loss due to Air emission in impacted area of 7355 ha shall be revised and damage calculated.
    - c. Water: Natural ground water recharge shall be worked out based on 100% of the land area and accordingly the reduction shall be worked using different recharge coefficients as per the area type and the reduction shall be worked out between pre- and post-construction stage. Further the

damage cost shall be worked based on the present 2nos of rain water harvesting structures and deficiency has to be worked out and damage cost assessed accordingly. (Damage cost -obstruction to GW recharge for all the years)

- d. Ground water consumption per day will get revised including the construction and labour, and hence water consumption rates will get revised to Rs:80 per Cum, Rs:4/: per Cum respectively and DA to be worked out.
- e. Surface water assessment and the damage cost shall be revised considering the revised quantities as per BUA and Virgin area and revised no of RWH structures.
- f. Biological Environment: No of trees to be planted @ 2500 trees per Ha as per CPCB and the cost revised.
- g. The remediation, Natural and Community Resources augmentation plan shall be worked with the revised damage cost assessed to be complied in 3 years with site specific and monitorable activities
- h. In Chapter 13.1 Hot Metal production from 2008 is given as 7.6 MTPA. Other products do not match with this production (page pdf 486).

In addition to the above, financial implications arising due to action plan or addressing Public Hearing issues should not be offset in Damage Assessment. Activities envisaged under the CSR cannot be considered under PH action plan. The expenses for Renovation of Pond and Construction of Ghats to improve water table and construction of 73km village road needs to be further clarified. Besides, the amount/money to be spent under Damage Assessment and PH action plan should be monitorable.

- VII. Raw Material Handling System (RMHS) shall be augmented with adequate pollution control measures especially fugitive dust and all the stock yards shall be paved floors surrounded by Garland drains, three tier Green belt and water sprinkling system of permanent type and much care needs to be taken in case of coal stock yards and to be located away from the village Bandidh settlement which is located abetting the plant compound.
- VIII. Likewise, Solid waste stockyards like BF Granulated Slag and fly ash needs adequate control measures to address fugitive dust generated during handling.
- IX. Two nos of Schedule -1 fauna is reported in the study area and this has to be addressed by a suitable Wildlife Conservation Plan duly approved by the Competent Authority.
- X. MSIHC Rules, 2000: The inventory levels of two of the items are beyond the upper threshold levels prescribed in the said Rules.
- XI. Green belt has been completed in less than 20% total area as against the requirement of 33% of the total plant area.

#### **Recommendations of the Committee held during 10-11<sup>th</sup> February, 2021**

- 33.1.24 In view of the foregoing observations at para 33.1.23 and deliberations, the committee recommended to return the proposal in present form.
- 33.1.25 M/s. Electrosteel Steels Limited (ESL) has made again an online application vide proposal no. IA/JH/IND/203094/2020 dated 14/03/2021 and the proposal considered by the EAC



(Industry 1) in its 33<sup>rd</sup> meeting of the Re-constituted EAC (Industry-I) held on 30<sup>th</sup> – 31<sup>st</sup> March, 2021. The observations and recommendations of EAC is given as below:

**Observations of the Committee**

33.1.26 The Committee noted the following:

- a. Project proponent has not taken any concrete initiatives to comply with the observations of RO listed at paragraph number 33.1.21. Factual site inspection report from RO will be again required on the Action Taken Report (ATR) submitted by the proponent on 29/03/2021 to the Committee.
- b. The emission monitoring for the stacks attached to cast house de-dusting has been carried out at 1.5 meter from ground level which does not conform to the CPCB guidelines of monitoring at 8D and 2D specified in the Emission Regulation Part III of CPCB document.
- c. The air quality modeling has been conducted using flat terrain AERMOD model, whereas the project site is dotted by hills and hillocks of about 140 to 220 meter. In view of this, revised modelling is required to be conducted.
- d. The monitoring data indicates fugitive emissions from most of the processes while assessing the impacts on the ambient air quality. The contribution of fugitive emission has not been considered for modeling purpose.
- e. The particulate matter emission levels from sinter plant, lime plant and dolomite plant exceeded the permissible limit of 50 mg/Nm<sup>3</sup>.
- f. PM<sub>10</sub> and PM<sub>2.5</sub> levels in the ambient air is found to be exceeding the NAAQS, 2009 at many of the locations.
- g. Project proponent exceeded the production capacity of 0.5 MTPA coke oven plant during the financial year 2019-20.
- h. The observations with respect to the damage assessment and remediation plan have been duly incorporated and revised damage assessment and remediation plan found to be in order.
- i. Existing green belt covers only 19% of the plant area as against the requirement of 33%. The tree density in the existing green belt is found to be less than 2500 trees per hectare.
- j. Incomplete information is provided in Form 2 (For instance in section 5, 13, 21, 29, 30 etc.,) which needs to be revisited.
- k. Two numbers of Schedule -1 fauna are reported in the study area and this has to be addressed by a suitable Wildlife Conservation Plan duly approved by the Competent Authority.

- l. Action plan to address the issues raised during public hearing is not as per MoEF&CC O.M. dated 30/09/2020.
- m. No scheme to protect the natural flow and alignment of seasonal nallah passing through the site has been furnished.
- n. Plant is under operation based on the Order of Hon'ble Supreme Court and Consent To Operate is not in place.
- o. The quality of the EIA report was not found up to the mark with respect to Appendix III of the EIA Notification, 2006 and Form 2 was also found incomplete.

### **Recommendations of the Committee**

33.1.27 In view of the foregoing observations at para 33.1.26 and deliberations, the committee recommended to return the proposal in its present form to address the shortcomings mentioned above.

33.2 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 26MW 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.

33.2.1 M/s Shree Hari Sponge Private Limited has made an online application vide proposal no. IA/OR/IND/103521/2019 dated 04/03/2021 along with copy of EIA/EMP report and Form-2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (ferrous & nonferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

33.2.2 The proposal was considered earlier 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:

- i. 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.
- ii. After deliberations, the Committee recommended that the proposal shall be listed for consideration in the forthcoming EAC meeting.

33.2.3 Accordingly, the proposal was considered by the EAC (Industry 1) in its 33<sup>rd</sup> meeting held on 30<sup>th</sup>-31<sup>st</sup> March, 2021.

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

33.2.4 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord
21/05/2019	8 <sup>th</sup> meeting of Re-EAC (Industry 1) held on 26 <sup>th</sup> June, 2019	Terms of Reference	18/07/2019

33.2.5 The project of M/s Shree Hari Sponge Private Limited located at Village-Kendrikela, Tehsil-Bonai, District-Sundergarh, Odisha State is for 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 26MW power through WHRB(16MW) and AFBC (10MW) Route and Production of 30 million Fly Ash Bricks per annum.

33.2.6 Environmental Site Settings

S. No.	Particulars	Details		
i.	Total land	22.257 ha (Private: 12.16 ha; Revenue land 10.097 ha)		
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	(a)Acquired Land :12.16 ha (b) Land under acquisition:10.097 ha		
iii.	Existence of habitation & involvement of R&R, if any.	R & R is not involved.		
iv.	Latitude and Longitude of the project site	Points	Latitude	Longitude
		A.	21°48'25.74"N	84°55'33.11"E
		B.	21°48'24.91"N	84°55'25.23"E
		C.	21°48'28.40"N	84°55'20.77"E
		D.	21°48'35.62"N	84°55'24.59"E
		E.	21°48'33.51"N	84°55'30.22"E
		F.	21°48'31.46"N	84°55'33.63"E
		G.	21°48'29.37"N	84°55'34.38"E
H.	21°48'25.74"N	84°55'33.11"E		
v.	Elevation of the project site	85-90m AMSL		
vi.	Involvement of Forest land if any.	Nil		
vii.	Water body exists within the project site as well as study area	<b>Project site:</b> Nil <b>Study area:</b> Brahmani River (North: 2.0 km)		
viii.	Existence of ESZ/ ESA/ national park / wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil. Kendrikala Reserved forest adjacent to Project site in SE Kelo Forest at 2.0 km in South		

33.2.7 The existing project was accorded Consent to Establish issued by Odisha State Pollution Control Board vide letter no 25558/IND-II-NOC-3286 dated 22/08/2005. Renewed Consent to Operate is accorded vide no. 3492/ IND-I-CON- 5279 dated 26/03/2018 and valid up to

31/03/2023. Since the CTE was accorded prior to 14/09/2006, EC is not required under the provisions of EIA Notification, 2006.

33.2.8 Implementation status of the existing CTO:

S No	Facilities	Units	As per CTO dated 26/03/2018	Implementation Status as on 10.03.2021	Production as per CTO
1.	Sponge Iron (DRI) Kilns 2 x 100 TPD	TPA	60000	In operation	60000 TPA

33.2.9 The unit configuration and capacity of 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.	Sponge Iron (DRI) Kilns	2x100 TPD	60000	2 x 350 TPD	210,000 TPA	2x100 TPD 2 x 350 TPD	270000
2.	Induction Furnace (Steel Melting)	--	--	3 x 15 Ton	1,35,000 TPA	3 x 15 Ton	3 x 15 Ton /1,35,000 TPA
3.	Continuous Caster (for Billet making)	--	--	4m x 7m CCM		4m x 7m CCM	1,35,000 TPA
4.	Total Power	--	--				26.01 MW
5.	(steam from WHRB)	--	--	10 + 10 = 20ton 30 + 30 = 60ton	16 MW	10 + 10 = 20ton 30 + 30 = 60ton	16 MW
6.	(steam from CFBC)	--	--	50 Ton	10 MW	50 Ton	10 MW
7.	(including Solar Power)			10 kW	10 KW	10 kW	10kW
8.	Fly Ash Brick Making			30 million bricks/annum		30 million bricks/annum	30 million bricks/annum
9.	Rolling Mill (for TMT Bar Production)			400 TPD	120000	400 TPD	1,20,000 TPA

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

S No	Raw Material	Unit	Quantity in TPA			Mode of Transportation
			Existing	proposed	Total	
1.	Iron ore	DRI Kiln	96000	336000	432000	By covered trucks from OMC
2.	Domestic Coal	DRI Kiln	30000	105000	136980	By covered trucks from MCL
		Brick Plant	0	1980		
3.	Imported Coal	DRI Kilns	30000	105000	158760	By covered wagons & trucks
		AFB Boiler	0	23760		
4.	Dolomite	DRI Kilns	3600	12600	16200	By covered trucks
5.	Pig Iron/ Scrap	Induction Furnace	0	29420	29420	
6.	Ferro Manganese	Induction Furnace	0	675	675	
7.	Limestone	Induction Furnace	0	4500	4500	
8.	Anthracite Coal	Induction Furnace	0	2636	2636	
9.	Lime Sludge	Brick Plant	0	8640	8640	
10.	Chemical Agent	Brick Plant	0	780	780	

33.2.11 The water requirement for the project is estimated as 1285 m<sup>3</sup>/day, out of which 15 m<sup>3</sup>/day of fresh water requirement will be obtained from the Borewell and the remaining requirement of 1270 m<sup>3</sup>/day will be sourced from Brahmani River. In principle approval has been obtained for withdrawal of 0.745 cu.sec water from Brahmani River.

33.2.12 The power requirement for the project is estimated as 6088 MWh/ Annum (Existing); Expansion: 252814 MWh/ Annum, open access from Captive Power Plant of SHSPL and from WESCO.

33.2.13 Baseline Environmental Studies:

<b>Period:</b>	01/10/2019 to 31/12/2019
<b>AAQ parameters at 08 locations</b>	PM <sub>2.5</sub> = 30.04 to 58.04 µg/m <sup>3</sup> PM <sub>10</sub> =50.21 to 85.11 µg/m <sup>3</sup> SO <sub>2</sub> = 4.05 to 16.27 µg/m <sup>3</sup> NO <sub>2</sub> = 12.24 to 25.34 µg/m <sup>3</sup>
<b>AAQ modelling</b>	<u>Incremental GLCs in study area for:</u> PM <sub>10</sub> = 0.54 µg/m <sup>3</sup> PM <sub>2.5</sub> = 0.0 µg/m <sup>3</sup> SO <sub>2</sub> = 2.23 µg/m <sup>3</sup> NO <sub>x</sub> =3.6 µg/m <sup>3</sup>
<b>Ground water quality at 08 locations</b>	pH: 6.5 to 7.1, Total Hardness:44 to 308 mg/l, Chlorides:11.2 to 91.8 mg/l, Fluoride: 0.05 to 0.08 mg/l. Heavy metals are within the limits.

<b>Surface water quality at 08 locations</b>	pH: 7.0 to 7.8; DO: 7.1 to 7.9 mg/l, BOD: 1.0 to 1.0 mg/l, COD 5.0 to 5.0 mg/l
<b>Noise levels</b>	34 to 57 dB(A) for the day time and 39 to 69 dB(A) for Night time.
<b>Traffic assessment study findings</b>	Maximum trucks which would add to the existing traffic will be 47 trucks/ hour inward and 2 trucks/ hour outward for duration of 16 hours after the expansion of the plant.
<b>Flora and fauna</b>	There is no schedule I species in the study area.

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

Sl. No.	Waste	Solid waste Total in TPA			Management
		Existing	Proposed	Total	
1.	Dolochar	13800	48300	62100	Utilized in CFBC Boiler for Power generation
2.	ESP Dust	8400	29400	37800	Utilized for Brick manufacturing
3.	Wet Scrapper sludge	1200	4200	5400	Utilized for Brick manufacturing
4.	Bagfilter dust	3600	12600	16200	Utilized for Brick manufacturing
5.	Acceration Dust	540	1890	2430	Utilized for Brick manufacturing
6.	IF Bag filter dust	Nil	8100	8100	Utilized for Brick manufacturing
7.	End Cut	Nil	3600	3600	Utilized in IF
8.	Fly ash/ bottom ash	Nil	55440	55440	Utilized for Brick manufacturing
9.	Non Magnetic slag	Nil	12960	12960	utilized for Brick
10.	Magnetic Slag	Nil	540	540	Utilized in IF

33.2.15 Public Consultation:

<b>Details of Advertisement given</b>	15/09/2020
<b>Date of Public Consultation</b>	16/10/2020
<b>Venue</b>	Madhupur Play Ground at Madhupur Kindrikela G. P. Tehsil Bonai, District Sundargarh.
<b>Presiding Officer</b>	Additional District Magistrate
<b>Major Issues Raised</b>	i. Air and Water Pollution ii. Solid waste and Waste water management iii. Permanent employment to local people iv. Development of the local area. v. Ground water abstraction and disturbed to natural drain.

Public Hearing action plan as per MoEF&CC O.M. dated 30/09/2020

Issues Raised by Public	Commitment of the Project Proponent	Time Bound Action Plan proposed	Budgetary provision
Air Pollution For Black Smoke and Dusts	<ul style="list-style-type: none"> <li>• In the existing plant ESP has already been installed and all air pollution control systems are running smoothly.</li> <li>• Online monitoring system will be installed for stack monitoring.</li> <li>• In expansion project ESP with ID fan will be installed</li> <li>• Coal that will be used is African imported coal which is having low sulphur content so that ash generation will be less.</li> <li>• Water sprinklers will be installed along the internal road, Raw material storage yard.</li> <li>• Regular water sprinkling will be carried out by tankers twice day in the connecting road.</li> <li>• 33% green belt will be ensured with 3 tier plantation.</li> </ul>	<p>For the existing plant the pollution control equipment has been already installed and are in operation.</p> <p>For the proposed plant all the pollution control measures will be installed as per the EMP before the commencement of production.</p> <p>Green belt development has been initiated by PP</p>	50,00,000.00
Noise pollution For existence of village close to the boundary of the industry/expansion project. Management of solid waste	<ul style="list-style-type: none"> <li>• Low RPM turbine will be used in operation of power plant.</li> <li>• 3 tier plantation programmes will be carried out for greenbelt development. 500 saplings will be planted in boundary to control effects of heavy noise.</li> </ul>	With the commencement of expansion project	1,00,000.00
Drainage of waste water (runoff water for char dumps)	<ul style="list-style-type: none"> <li>• 80% of the existing solid waste materials are utilized in the expansion work of national highway.</li> <li>• Rest 20% will be utilized after monsoon.</li> <li>• Solid waste generated from DRI Kiln will be used as fuel in the power plant.</li> </ul>	<p>All the existing Char has been given for construction of road.</p> <p>In the expansion unit the Slag generated will be utilized for brick</p>	Incorporated with EMP cost

Issues Raised by Public	Commitment of the Project Proponent	Time Bound Action Plan proposed	Budgetary provision
	<ul style="list-style-type: none"> <li>• Fly ash generated from power plant will be utilized for in house brick manufacturing purpose.</li> <li>• 100% ash utilization will be ensured.</li> </ul> <p>Proposed expansion project will be designed on the concept of ZLD.</p>	<p>making. Char will be completely utilized by CFBC boiler with the commencement of CFBC</p>	
	<ul style="list-style-type: none"> <li>• Proper drainage system will be provided for waste water management.</li> <li>• Around the raw material storage area a retaining wall of (1m*1m) and garland drain of 1m*0.5 will be constructed.</li> </ul> <p>The garland drain will be connected to the settling tank and the over flow water after settle will pass through the surface water drain to rainwater harvesting pond.</p>	<p>The construction of drainage network with garland drains are under process and will be completed by end of 2021.</p>	10,00,000.00
Water logging and disturbance of natural drainage pattern due to implementation of project.	<ul style="list-style-type: none"> <li>• Proper drainage network will be constructed within the plant premises.</li> <li>• For the nearby water body hume pipe and underpass drainage system has been proposed.</li> </ul>	<p>The construction of drainage network with garland drains are under process and will be completed by end of 2021.</p>	10,00,000.00
Consumption of ground water	<ul style="list-style-type: none"> <li>• For existing plant required water is being drawn with due permission.</li> <li>• For proposed expansion plant the required water will be drawn from Brahmani river with intake well.</li> <li>• In existing plant rain water harvesting pond of 0.6acre has already been in operation.</li> <li>• For proposed project 4 acre of rainwater harvesting system will be installed.</li> <li>• During the operation the ground water will be only utilized for drinking and domestic use.</li> </ul>	<p>Water permission obtained from CGWB</p> <p>Rain water pond will be constructed within a year of plant operation</p>	5,00,000.00



Issues Raised by Public	Commitment of the Project Proponent	Time Bound Action Plan proposed	Budgetary provision
Plantation	<ul style="list-style-type: none"> <li>• 33% (18.2 acre) green belt development will be ensured with 3 tier plantation programme.</li> <li>• At present 800 nos of saplings has been planted over an area of 6.08acres.</li> <li>• Detail green belt plan is attached in the EIA report</li> <li>• A fruit orchard has been developed by the proponent over an area of 3 acres and this will be taken care of by the people of Colony Sahi.</li> </ul>	Already initiated	30,00,000.00
Permanent employment of local people in the industry on priority basis and pay wage as per govt. base	<ul style="list-style-type: none"> <li>• Employment will be given to the local people in expansion project on priority basis in unskilled category. For skilled category recruitment will be done as per requirements.</li> <li>• At present 79 personnel are engaged from Bonai Block out of total 93 employees in non-executive grade, 22 from Kandrikela village out of Kendrikela GP and rest 30 are from Bonai block.</li> </ul>	Along with the commencement of the proposed expansion project.	
Peripheral Development	<ul style="list-style-type: none"> <li>• All developmental projects will be done as per CSR plan.</li> <li>• 1 % of total project cost will be utilized for peripheral development.</li> </ul>	With the commencement of project activities	
Construction of village roads	Construction of Village roads will be done under Pradhan Mantri Gramya Sadak Yojna.	2021	45,000,00.00
Renovation of clubs and Anganwadi	Renovation of clubs and Anganwadis will be done after 1 year of plant operation.	2021-2022	5,00,000.00
Drinking water facility	For drinking water facility government schemes already been implemented. If required in future company will take care of those	2022	3,00,000.00

Issues Raised by Public	Commitment of the Project Proponent	Time Bound Action Plan proposed	Budgetary provision
	requirements. Proposed Piped water supply in nearby villages i.e Kendrikala, Madhupur, Barhamusa		
Street light facility	Solar Street light facility will be provided. (20 Solar Lighting poles in Kendrikala village road)	2023	10,00,000.00
Free health care facility	Free health checkups of village people will be done twice a year.	With the commencement of project	3,00,000.00 per annum
Educational facility	<ul style="list-style-type: none"> <li>• In Kandikela Gram Panchayat school boundary wall construction and renovation will be done.</li> <li>• Rain water harvesting system will be installed in school. Fruit plants will be planted in school boundaries.</li> <li>• Laying of Water pipe line for gardening purpose will be done.</li> <li>• School furniture will be renovated</li> <li>• School annual day and sports day will be celebrated.</li> </ul>	Continuing	31,50,000.00
Problem of prevailing kidney disease in the area and financial assistance on medical expenses of person suffering.	<ul style="list-style-type: none"> <li>• Proper medication facility will be provided to person who will be affected in renal disease.</li> <li>• Company will provide a vehicle for transportation of the person from the village to nearest Community Health center.</li> </ul>	Within 1year of Plant operation	16,00,000.00

33.2.16 The capital cost of the expansion project is Rs 284.0 Crores and the capital cost for environmental protection measures is proposed as Rs 28.4 Crores (for expansion). The annual recurring cost towards the environmental protection measures is proposed as Rs 2.84 Crores (for expansion). The employment generation from the proposed expansion is 486. The details of cost for environmental protection measures is as follows:

Item	Cost (in Crore)
Cost of Air Pollution Control Devices/ System	15.0
Cost of Water conservation & Pollution Control	6.0
Cost of Solid Waste Management System	2.0

Green belt development	0.5
Noise Reduction Systems	0.5
Occupational Health Management	0.5
Risk Mitigation & Safety Plan	1.4
Setting Environmental Management Cell	0.5
Implementation of Controlling measures to minimise impacts due to transportation and traffic	1.0
Setting/ Modification Environmental Laboratory	1.0
<b>Total</b>	<b>284</b>

33.2.17 Existing green belt area is covered about 2.46 ha and after expansion it will be increased up to 7.36 ha which is about 33% of the total project area. The company acquired 3.4 acres of land for development of orchard and planted with 700 nos of various fruit bearing plants like Mango, Jamun, Gauva etc in last year for benefit of nearby villagers. Local and native species will be planted with a density of 2000 trees per hectare with 15000 saplings up to 2022.

33.2.18 The proponent has mentioned that there is no court case or violation under EIA Notification to the project or related activity.

33.2.19 Name of EIA consultant: M/s Kalyani Laboratories Pvt Ltd (KLPL). [Sr No. 90, oList of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021].

33.2.20 Certified compliance report from Regional Office:

The Status of compliance of earlier CTO was obtained from Odisha State Pollution Control Board vide letter no 494/CTO-0683 (P-II) dated 03/03/2021. As per the report, the project proponent is complying with the existing CTO conditions.

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

33.2.21 The Committee noted the following:

- i. PH was held on 16.10.2020. As per the PH proceedings, local people had a general complaint that PP has not spent any money in past thirteen years on social welfare. The issues raised during the public hearing have not been adequately addressed in the final EIA report.
- ii. No efforts have been made to explore availability of surface water to avoid ground water abstraction for the proposed expansion.
- iii. Dolochar generated from existing DRI kiln is not used for power generation. Further, the dolochar and ESP bag house dust is being dumped in a 10-acre yard which is not a sound environment practice.
- iv. Approach road to the plant from NH is katcha and internal plant roads are also not paved.
- v. 20 KLD of domestic waste water is envisaged to be discharged into soak pits. No concrete plan is mentioned in EIA report for treatment of domestic wastewater.

- vi. Garland drains have not been proposed around the raw material storage yard and no settling pit is provided to trap the run off material.
- vii. Only 20 % of plant area is covered with green belt with a density of 2000 trees per hectare as against mandatory green belt requirement of 33% of the plant area.
- viii. Total land requirement is 55 acres, out of which 30.05 acres is in possession of PP. balance 24.95 acres of land is yet to be acquired which is under process by IDCO.
- ix. Plant layout is not an engineering drawing. No dimensions are given and NORTH is shown as WEST. Layout is not showing new kiln installations.
- x. EIA Report has following deficiencies:
  - a. Cover page does not indicate plant capacity and the month in which EIA has been finalized.
  - b. Scope does not cover installation of 14000 TPA slag crusher and the same is also not covered in TOR.
  - c. Section 6.10 and 6.11 do not cover the TOR point # 9 pertaining to Corporate Environment Policy as per requirement. Chapter 6 is not supposed to address TOR # 9.
  - d. WHRB proposed is only 16 MW while it should be 20 MW for 2x100 TPD and 2X350 TPD kilns.
  - e. Hot charging of billet has not been proposed. RHF using FO has been proposed.
  - f. Layout plan submitted in section 2.13 of EIA and the one shown in Form 2 are different.
  - g. Section 2.13 of Chapter 2 of EIA report is not presented as per the requirement of EIA Notification 2006.
  - h. Criteria for selection of soil sampling stations in section 3.1.1 has not been given. Physical parameters tested and reported in table 3.6 are not complete. In view of this, fresh analysis of soil samples needs to be carried out.
  - i. Out of 8 SW samples collected, 6 are from village ponds in rural Odisha. TDS in these samples varies from 76 to 140 ppm; BOD is less than 1.0 mg/L; COD is less than 5; DO is between 7.1 to 7.6 mg/L. BOD values correspond to coliform levels of 1600 MPN/100cc. No explanation is available in the report for the observed quality of SW. It is also not clear as to which method has been used to determine BOD in less than 1 ppm range. In view of this, fresh analysis of surface water samples needs to be carried out.
  - j. Criteria for selection of AAQ stations has not been defined.
  - k. Environment Baseline and Socio-economic data have not been interpreted. No quality check has been performed on the data collected.
  - l. Impacts and Mitigation measures suggested in Chapter 4 are generic and not quantified in specific terms applicable to the project.
  - m. EMP Chapter 10 does not give specific details in quantified terms of the Impacts that are supposed to be managed administratively in post project scenario as per the requirement of EIA notification 2006.
  - n. Action plan to address the issues raised during public hearing is not as per the requirement of MoEF&CC O.M. dated 30/09/2020.

- o. PH issues have not been addressed to formulate EMPs for social welfare and infrastructural work.
- xi. Incomplete information is provided in Form 2 (For instance in section 5, 13, 21, 29, 30 etc.,) which needs to be revisited.

### Recommendations of the Committee

33.2.22 In view of the foregoing observations at para 33.2.21 and deliberations, the committee recommended to return the proposal in its present form to address the shortcomings mentioned above.

33.3 Proposed expansion of steel plant-New Installation of DRI Kilns (Sponge Iron from 3,46,500 TPA), Expansion of Induction Furnace (Ms Billets from 55, 500 TPA to 4,12,500 TPA), New Installation of Rolling Mill (TMT Bars/Structural Steel from 3,96,000 TPA), New Installation of WHR based Power Plant from 24 MW, New Installation of CFBC based Power Plant 20 MW] by **M/s. AMMAN-TRY Sponge & Power (P) Limited** located at Sirasanambedu Village, Mandal Pellakur, **District SPSR Nellore, Andhra Pradesh** -[Online Proposal No. IA/AP/IND/204530/2008, File No. J-11011/308/2019-IAII(I)] – **Environment Clearance**– regarding.

33.3.1 M/s. AMMAN-TRY Sponge & Power (P) Limited has made an online application vide proposal no. IA/AP/IND/204530/2008 dated 20/03/2021 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 & nonferrous) of the schedule of the EIA Notification, 2006 and appraised at Central Level.

### Details submitted by Project proponent

33.3.2 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord
25 <sup>th</sup> July 2019	12 <sup>th</sup> EAC 21 <sup>st</sup> October 2019	TOR issued with public hearing	11 <sup>th</sup> December, 2019

33.3.3 The project of M/s AMMAN-TRY SPONGE & POWER (P) LIMITED located in Sirasanambedu Village, Pellakur Mandal, SPSR Nellore District, Andhra Pradesh State is proposed to go for expansion of Steel Plant – New Installation of DRI Kilns (Sponge Iron of 3,46,500 TPA), Expansion of Induction Furnace (MS Billets from 55,500 TPA to 4,12,500 TPA), New Installation of Rolling Mill (TMT Bars/ Structural steel of 3,96,000 TPA), New Installation of WHRB based Power Plant of 24 MW, New Installation of CFBC based Power Plant of 20 MW.

33.3.4 Environmental Site Settings

S. No.	Particulars	Details
i.	Total land	42.36 ha [Private: 11.94 ha; Govt:-30.42 ha]
ii.	Land acquisition details as per	Total land acquired

	MoEF&CC O.M. dated 7/10/2014	
iii.	Existence of habitation & involvement of R&R, if any.	No habitation exists in the plant site
iv.	Latitude and Longitude of the project site	13 <sup>0</sup> 50' 11" to 13 <sup>0</sup> 50' 41" 79 <sup>0</sup> 51' 26" to 79 <sup>0</sup> 51' 59"
v.	Elevation of the project site	47 m
vi.	Involvement of Forest Land, if any	Nil
vii.	Water body exists within the project site as well as study area	<b><u>Project site:</u></b> An unnamed stream is passing through the government land between two parcels of the site. The water stream length is 388 meters and width is 5 meters. Culverts will be constructed for connectivity between the two parcels of the land. <b><u>Study area:</u></b> Swarnamukhi River-4.2 Kms. Sirasanambeducheruvu – 480 meters Two pond existing adjacent the plant site
viii.	Existence of ESZ / ESA / National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. if any within the study area	Nelapattu Bird Sanctuary - 7.78 Kms.  MoEF&CC has issued a final notification for Nelapattu Bird Sanctuary vide S.O.1866 (E) dated 8/06/2017. As per the said notification, the extent of Eco-sensitive zone shall be up to 2 km from the boundary of protected area of Nelapattu Bird Sanctuary, with an area of 29.21 Sq. Km.  As per the authenticated map by PCCF(WL), Nelapattu Bird Sanctuary is located at a distance of 7.78 km from the plant boundary.  Further, in pursuance to the MoEF&CC final notification dated 08/06/2017, the plant site is located outside the Eco-Sensitive Zone at distance 5.58 km. This has also been certified by the PCCF(WL).  In view of the above, prior clearance from Standing Committee of the National Board for Wildlife (SCNBWL) is not applicable as per MoEF&CC O.M. dated 8/08/2019 and 16/07/2020.

33.3.5 The existing project was accorded environmental clearance by State Environmental Impact Assessment Authority, Andhra Pradesh vide Lr. No. SEIAA/AP/NLR-16/2008 dated 29th June, 2010. Consent to Operate for the existing unit was accorded by Andhra Pradesh State

Pollution Control Board vide Ir. no. APPCB/VJA/NLR/178/CFO/HO/2018. The validity of CTO is up to 30<sup>th</sup> April, 2023.

33.3.6 Implementation status of the existing EC

Sl. No.	Facilities	Units	As per EC dated 29/06/2010	Implementation Status as on 15/03/2021	Production as per CTO
1	DRI kilns	Sponge Iron	180 TPD (54,000 TPA)	Not implemented	Nil
2	Induction Furnaces	MS Billets	370 TPD (1,11,000 TPA)	In operation	54,000 TPA
3	Rolling mill	TMT Bars/Structural steel	200 TPD (60,000 TPA)	Not implemented	Nil
4	Power	Electricity	8MW (WHRB-4MW & FBC - 4MW)	Not implemented	Nil

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

S.N.	Name	Existing Units		Proposed Units		Total (Existing + Proposed)	
		Configuration	Production	Configuration	Production	Configuration	Production
1	DRI kilns	2X90 TPD	180 TPD (54,000 TPA)	3x350 TPD	3,46,500 TPA	3x350 TPD	3,46,500 TPA
2	Induction Furnaces	4X12 T	370 TPD (1,11,000 TPA)	1X24 MT & 2X30MT	3,21,500 TPA <b>Up gradation of Existing Furnace to increase production from 55,500 TPA to 91,000 TPA (Increase by 35,500 TPA)</b>	2X24 MT & 2X30MT	4,12,500 TPA
3	Rolling mill	1X200 TPD	200 TPD (60,000 TPA)	1X1200 TPD	3,96,000 TPA	1X1200 TPD	3,96,000 TPA
4	Power	2X2 =4 MW 1x4 MW	8MW (WHRB-	3X8 =24 MW 1X20 MW	44MW (WHRB-	3X8 =24 MW 1X20 MW	44MW (WHRB-

			4MW & FBC - 4MW)		24MW & FBC - 20MW)		24MW & FBC - 20MW)
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33.3.8 The details of the raw material requirement for the expansion project along with its source and mode of transportation is given as below:

S. No	RAW MATERIAL		QUANTITY			SOURCES	DISTANCE (W.R.T PLANT)	MODE OF TRANSPORT
			Existing	Proposed	Total			
<b>1.</b>	<b>For DRI Kilns (Sponge Iron – 3,46,500TPA)</b>							
	Iron ore		--	5,54,400 TPA	5,54,400 TPA	Andhra Pradesh, Karatnaka	300 - 500Kms.	By rail & road (through covered trucks)
	Dolomite		--	45,045 TPA	45,045 TPA	Andhra Pradesh	100 - 200 Kms.	By road (through covered trucks)
	Coal	Indian	--	4,50,450 TPA	4,50,450 TPA	SCCL, Telangana	~ 500 Kms.	By rail & road (through covered trucks)
		(or)						
		Imported	--	2,88,288 TPA	2,88,288 TPA	South African and Australia	~ 50 Kms. (from Krishnapatanam Port)	Through sea route, rail route & by road
<b>2.</b>	<b>For Induction Furnace (MS Billets – 4,12,500 TPA)</b>							
	Sponge Iron		84,260 TPA	2,97,684 TPA	3,81,944 TPA	In-house generation and purchase from other sponge iron units	100 Kms	By road(through covered trucks)
	Scrap		25,533 TPA	90,207 TPA	1,15,740 TPA	Andhra Pradesh	50 - 300 Kms.	By road(through covered trucks)
	Ferro Alloys		1,354 TPA	4,780 TPA	6,134 TPA	Andhra Pradesh	200 Kms	By road(through covered trucks)
<b>3.</b>	<b>For Rolling Mill (TMT bars &amp; Structural Steel – 3,96,000 TPA)</b>							
	MS billets		--	4,18,730 TPA	4,18,730 TPA	In-house generatio	50 Kms	By road(through



S. No	RAW MATERIAL	QUANTITY			SOURCES	DISTANCE (W.R.T PLANT)	MODE OF TRANSPORT
		Existing	Proposed	Total			
					n and purchase from other IF units		covered trucks)
	Light diesel oil	--	12823 KL/annum	12823 KL/annum	Andhra Pradesh	100 - 300 Kms.	By road (through Tankers)
<b>4.</b>	<b>For CFBC Boiler [Power - 20 MW]</b>						
	Indian coal	--	1,26,000 TPA	1,26,000 TPA	SCCL, Telangana	~ 500 Kms.	By rail & road (through covered trucks)
(or)							
	Imported coal	--	84,000 TPA	84,000 TPA	South African and Australia	~ 50 Kms. (from Krishnapatanam Port)	Through sea route / rail route / by road
(or)							
	Dolochar	--	1,03,950 TPA	1,03,950 TPA	In-house generation	---	through covered conveyors
	Indian coal	--	74,025 TPA	74,025 TPA	SCCL, Telangana	~ 500 Kms.	By rail & road (through covered trucks)
(or)							
	Dolochar	--	1,03,950 TPA	1,03,950 TPA	In-house generation	---	through covered conveyors
	Imported coal	--	32,025 TPA	32,025 TPA	South African and Australia	~ 50 Kms. (from Krishnapatanam Port)	Through sea route / rail route / by road

33.3.9 The water requirement for the proposed expansion project is estimated as 628 m<sup>3</sup>/day and same will be sourced from ground water. Water drawl permission from State Ground Water Authority has been obtained for 660 KLD vide letter No. 1168/Hg-II/2018 date 03/03/2020.

33.3.10 The power requirement for the expansion project is estimated as 58.5 MW, out of which 44 MW will be taken from captive power plant remaining 14.5 will be obtained from the APSPDCL.

33.3.11 Baseline Environmental Studies:

Period	1st March 2019 to 31st May 2019
AAQ parameters at 8 locations	PM <sub>2.5</sub> = 20.1 to 39.9 µg/m <sup>3</sup> PM <sub>10</sub> = 37.7 to 66.5 µg/m <sup>3</sup> SO <sub>2</sub> = 6.1 to 14.1 µg/m <sup>3</sup> NO <sub>2</sub> = 7.5 to 22.6 µg/m <sup>3</sup>
AAQ modelling	Incremental GLCs due to the expansion proposal: PM <sub>10</sub> = 2.3 µg/m <sup>3</sup> SO <sub>2</sub> = 12.4 µg/m <sup>3</sup> NO <sub>x</sub> = 15.0 µg/m <sup>3</sup>
Ground water quality at 8 locations	pH: 7.3 to 7.5, Total Hardness: 235 to 280 mg/l, Chlorides: 148 to 257 mg/l, Fluoride: 0.66 to 0.89 mg/l. Heavy metal sare within the limits.
Surface water quality at 2 locations	pH: 7.5 to 7.7, DO: 3.8 to 5.8 mg/l, BOD: 2.7 to 6.9 mg/l and COD from 7.0 to 8.0 mg/l
Noise levels	40 dBA to 63 dBA for the day time and 30 dBA To 56 dBA For the Night time.
Traffic assessment study findings	Design capacity of SH #61 : 10,000 PCUs/day Present traffic load on SH #61: 7282 PCUs/day. Additional traffic load due to proposed project: 1456 PCUs/day. Total traffic load in future due to expansion project: 8738 PCUs/day (which is still within the Carrying capacity of SH#61 of 10000 PCUs/day)
Flora and fauna	Yes: 9 Schedule – I species present. (Blackbuck, Indian Monitor Lizard, Eurasian Spoon bill, Shikra, White bellied sea eagle, Peregrine Falcon, Osprey, Danaid Eggfly and Common Rose.) Conservation Plan has been approved by PCCF, Forest Department, Govt of Andhra Pradesh vide letter Rc. No. 3994/2020/WL-2 dated 08.06.2020 with conservation budget of Rs 46.3 Lakhs to be implemented in three years.

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

S.NO.	WASTE / BY PRODUCTS	QUANTITY			METHOD OF DISPOSAL
		Existing Quantity in TPA	Expansion Quantity in TPA	After expansion in TPA	
1	Ash from DRI	--	2,02,702	2,02,702	Will be given to Brick manufacturers.
2	Dolochar	--	1,03,950	1,03,950	it will be used as fuel in CFBC Boiler.
3	Kiln Accretion Slag	--	3,119	3,119	Will be utilized in road construction
4	Wet Scraper Sludge	--	15,939	15,939	Will be given to brick manufacturers.

S.NO.	WASTE / BY PRODUCTS	QUANTITY			METHOD OF DISPOSAL
		Existing Quantity in TPA	Expansion Quantity in TPA	After expansion in TPA	
5	SMS Slag	5500	35,750	41,250	Slag from SMS is being crushed and iron is recovered & remaining non –magnetic material being inert nature, is used as sub base material in road construction / used for brick manufacturing / civil construction works like PCC and wall construction. Similar practice will be continued after expansion also.
6	Mill scales from Rolling Mill	--	7,920	7,920	Will be given to Ferro alloy manufacturing units.
7	End Cuttings	--	11,880	11,880	Will be recycled to SMS unit
8	Ash from Power Plant	--	95,681	95,681	Will be given to cement plants/Brick manufacturers.

33.3.13 Public Consultation:

Details of advertisement given	24 <sup>th</sup> October 2020
Date of Public Consultation	27 <sup>th</sup> November 2010
Venue	At Project site, Sirasanambedu Gramapanchayat, Pellakur Mandal, SPSR Nellore District
Presiding Officer	Joint Collector (Village & Ward Secretariat & Development
Major issues raised	<p>The issues raised during Public Hearing are:</p> <ul style="list-style-type: none"> <li>• Pollution problems and pollution control</li> <li>• Employment generation</li> <li>• Training to local villager for skill development</li> <li>• Laying of Bypass road</li> <li>• Greenbelt development in the plant and in surrounding villages</li> <li>• Social &amp; Infrastructure Development activities</li> <li>• Health Check up</li> <li>• Rainwater harvesting structure</li> </ul>

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

S. No	Concerns raised during public hearing	Physical activity and action plan	Tentative budget Rs. Lacs	Target date for implementation of action plan
1.	Pollution Problem and pollution control	<p>In the proposed expansion project following environment protection measures will be provided for duly complying with norms stipulated by MOEF&amp;CC /APPCB:</p> <p>ESPs will be provided to DRI Kilns to bring down the particulate emission to less than 30 mg/Nm<sup>3</sup>.</p> <p>ESP will be provided to Power plant to bring down the particulate emission to less than 30 mg/Nm<sup>3</sup>.</p> <p>Fume Extraction &amp; Cleaning system with bag filters will be provided to SMS Units to bring down the particulate matter emission to less than 30 mg/Nm<sup>3</sup>.</p> <p>All conveyor will be covered with GI sheets to control the dust emission. Interlocking system will be provided to ESP. This will ensure that whenever ESP fails, the raw material feed to the unit will be stopped and will commence production after ESP is rectified to comply with the norms.</p> <p>Net resultant Ground level concentrations during operation of the expansion project after superimposing the incremental concentrations over the maximum baseline concentrations are well within the National Ambient Air Quality Standards.</p> <p>Zero liquid effluent discharge will be implemented in the expansion project also.</p> <p>Greenbelt has been developed in 35 acres of land. 21450 nos. of plants are existing. Now it is proposed to develop 13,550 nos of additional plantation by September 2022 to further mitigate the emissions.</p> <p>All these environmental protection systems will be installed and operated to comply with the norms.</p> <p>Hence there will not be adverse impact on environment due to expansion project.</p>	<p>Rs. 6.94 Cr</p> <p>Rs. 7.78 Cr</p> <p>Rs. 38.67 Cr</p> <hr/> <p>Total Rs 53.39 Crores</p>	<p>2021-22</p> <p>2022-23</p> <p>2023-24</p>
2.	Employment	<p>Out of total 140 no. of employees in the existing plant, 80 no. of employees are from the local villages.</p> <p>In the expansion employment will be provided to 500 nos. during construction 750 nos. during operation of the expansion.</p> <p>As per Govt. of Andhra Pradesh Act, 75 % of total employment will be given to local people only.</p>	---	---

S. No	Concerns raised during public hearing	Physical activity and action plan	Tentative budget Rs. Lacs	Target date for implementation of action plan
3.	Training to local villager for skill development	Management has agreed to establish skill development centre for providing training to the villagers.	Rs. 50.0 Lakhs Rs. 50.0 Lakhs Rs. 18.0 Lakhs	2021-22 2022-23 2023-24
4.	Laying of Bypass road	Management has agreed to strengthening and widening of bypass road (Sirasanambedu village )	Rs. 30.0 Lakhs Rs. 30.0 Lakhs	2021-22 2022-23
5.	Greenbelt development in the plant and in surrounding villages	Greenbelt has been developed in 35 acres of land. 21450 nos. of plants are existing. Now it is proposed to develop 13,550 nos of additional plantation by September 2022 to further mitigate the emissions. In addition to above another 4500 nos of additional plantation will be developed in the Govt. land which is between two parcels of the plant site And 1,000 plants each will be planted in sirasanambedu village, Rajupalem & Jilapatru	Rs. 40.0 Lakhs  Rs. 5.0 lakhs Rs. 5.0 lakhs Rs. 5.0 lakhs	September 2022  2021-22 2022-23 2023-24
6.	Social & Infrastructure Development activities	Management has assured that social & infrastructure development works will be carried out in the villages in consultation with village panchayat.	Rs.1.91 Cr Rs.1.41 Cr Rs. 0.61 Cr Rs. 3.93 Cr	2021-22 2022-23 2023-24
7.	Health check up	Health check-up will be carried out periodically in surrounding villages	Rs.5.0 Lakhs (under CSR as per Companies Act 2014)	Once in every year
8.	Rain Harvesting Structure	RWH structures in the plant premises  RWH structures in village.	Rs. 20.0 Lakhs Rs. 20.0 Lakhs  Rs. 5.0 Lakhs Rs. 5.0 Lakhs Rs. 5.0 Lakhs	2021-22 2023-24  2021-22 2022-23 2023-24

S.NO.	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (RS. IN CRORES)	
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year		
<b>A). Based on Need Based &amp; SIA Study</b>						
1	Community & Infrastructure Development Programmes					
	i). Construction of public toilets	Physical Nos.	2 nos. in Sirasanambedu	2 nos. in Chembedu	2 nos. in Chillakuru	0.15

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (RS. IN CRORES)
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
		and village				
		Budget in crores	0.05	0.05	0.05	
	ii).Construction of drainage facilities	Physical Nos. and village	800 m in Sirasanambedu	--	--	0.15
		Budget in crores	0.15	--	--	
	iii).Construction of drainage facilities	Physical Nos. and village	--	600 m in Rosanuru	--	0.1
		Budget in crores	--	0.1	--	
	iv). Providing LED Street lighting with solar panels	Physical Nos. and village	24 nos. in Sirasanambedu, Chembedu	24 nos. in Chillakuru, Rosanuru	12 nos. in Chavali	0.15
		Budget in crores	0.06	0.06	0.03	
	v).Development road	Physical Nos. and village	150 m in Rajupalem	150 m in Rajupalem	225 m in Rajupalem	0.35
		Budget in crores	0.1	0.1	0.15	
	<b>Total</b>					<b>0.9</b>
2	Education and Scholarship Programmes					
	i).Providing furniture, computers, library, sports equipment etc.	Physical Nos. and village	Sirasanambedu village school	Rajupalem village school	Nallagundlakandriga village school	0.15
		Budget in crores	0.05	0.05	0.05	
	ii).Providing Model Anganwadi Centre in consultations with State Women and Child Development Department	Physical Nos. and village	--	1 no in Pellakur mandal	--	0.1
		Budget in crores	--	0.1	---	

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (RS. IN CRORES)
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
	iii). Construction of toilets in the schools	Physical Nos. and village	4 nos. in Sirasinambedu, Rajupalem	4 nos. in Jilapaturu, Chavali	2 nos. in Puttapdu	0.25
		Budget in crores	0.1	0.1	0.05	
	iv).Renovation of school buildings	Physical Nos. and village	2 Rooms in Sirisanambedu Village	2 Rooms in Sirisanambedu Village	--	0.10
		Budget in crores	0.05	0.05	--	
	v). Distribution of tricycles for handicapped (	Physical Nos. and village	100 nos. of tricycles in Naidupeta and Pellakur Mandals	--	--	0.05
		Budget in crores	0.05	--	--	
<b>Total</b>						<b>0.65</b>
3	Medical & health related activities	Physical Nos. and village	Ambulance with facilities	--	--	0.3
		Budget in crores	0.3	--	--	
<b>Total</b>						<b>0.3</b>
<b>B). Based on Public Consultation/Hearing</b>						
1	<b>Impart training to the local villagers for skill development.</b> a).DISHA Centre” along with necessary infrastructure for various vocational training program for employment generation in association with <i>National Skill Development Mission</i> (Automobile	Physical Nos. and village	Vocational training and women SHG - 10 groups in sirasanambedu	Vocational training in sirasanambedu and women SHG -10 groups in Rajupalem  Auto mobile work shop in sirasanambedu	Women SHG -10 groups in Jilapatru Computer hardware training institute in sirasanambedu  Auto mobile work shop in Rajupalem	1.18
		Budget in crores	0.4	0.45	0.33	

S.NO.	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (RS. IN CRORES)	
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year		
	Repair, Welding, Electrical, Computer Hardware, Soft skills like computer programs, Industrial Sewing Operator & Coaching classes for under privilege students for various competitive exams, Defence Services etc.)					
2	Strengthening & widening of Bypass road	Physical Nos. and village	450m in Sirisanambedu village	450 m in Sirisanambedu village	--	0.6
		Budget in crores	0.3	0.3	--	
3	RWH wells in the surrounding villages	Physical Nos. and village	10 nos. in Sirasinambedu	10 nos. in Rajupalem	10 nos. in Jilapaturu	0.15
		Budget in crores	0.05	0.05	0.05	
4	Plantation development	Physical Nos. and village	1000 plants in Sirasinambedu	1000 plants in Rajupalem	1000 plants in Jilapaturu	0.15
		Budget in crores	0.05	0.05	0.05	
<b>Total</b>					<b>2.08</b>	
<b>Recurring expenditures under CSR as per companies Act 2014</b>						
5	Health checkup will be carried out periodically in surrounding villages @ Rs 5.0 Lakhs every year					
6	Provide supportive contribution for performing siddaiah swamy festivities in Sirisanambedu village @ Rs 2.0 Lakhs every year					
<b>Grand Total(A+B)</b>					<b>3.93</b>	

33.3.14 The capital cost of the project is Rs.495.68 Crores and the capital cost for environmental protection measures is proposed as Rs.53.39 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs.3.61 Crores. The employment



generation from the proposed project expansion is 750. The details of cost for environmental protection measures is as follows:

S. NO	ITEM	CAPITAL COST (RS.IN CRORES)				RECURRING COST / ANNUM (RS.IN CRORES)
		2021-2022	2022-2023	2023-2024	Total	
1.	<b>Air Emission Management</b>					
	ESPs	--	--	12.0	<b>12.0</b>	1.20
	Fume /Dust extraction systems with Bag filters	2.0	3.8	9.5	<b>15.3</b>	0.60
	Chimneys	0.50	1.0	8.0	<b>9.5</b>	0.05
	CAAQS	0.4	--	1.2	<b>1.6</b>	0.04
	CEMS	0.1	0.2	0.6	<b>0.9</b>	0.10
	Water Sprinklers	0.1	0.1	0.5	<b>0.7</b>	0.03
	Mechanical dust collectors	0.1		0.2	<b>0.3</b>	
2.	<b>Wastewater Management</b>					
	ETP & STP	0.3	0.3	0.7	<b>1.3</b>	0.40
	Garland drains	0.1	0.1	0.5	<b>0.7</b>	0.02
3.	<b>Solid waste Management</b>					
	Ash handling system	--	--	3.0	<b>3.0</b>	0.60
	Slag crushing & disposal	0.2	--	0.3	<b>0.5</b>	0.03
	Hazardous & Municipal solid waste storage	0.1	0.2	0.3	<b>0.6</b>	0.01
4.	Greenbelt development	0.4	--	--	<b>0.4</b>	0.20
5.	Rainwater Harvesting	0.2	--	0.2	<b>0.4</b>	--
6.	Fire safety & Occupational Health	0.3	0.5	1.0	<b>1.8</b>	0.25
7	Budget for Social Development activities (Socio economic activities)	1.91	1.41	0.61	<b>3.93</b>	0.07
8	Budget for conservation plan	0.23	0.17	0.06	<b>0.46</b>	--
<b>TOTAL</b>					<b>53.39</b>	<b>3.61</b>

33.3.15 Greenbelt has been developed in 14.17 ha (35 acres/ 33.45 % of the total project area) of land with 21450 nos. of plants as 15 m to 50 m wide greenbelt all around the plant. Now it is proposed to develop 13,550 nos of additional plantation by September 2022 to further mitigate the emissions. In addition to above another 4500 nos of additional plantation will be developed in the Govt. land which is between two parcels of the plant. Local and native species are planted with a density of 2500 trees per hectare.

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

33.3.17 Name of the EIA consultant: M/s Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [S.No.129 List of ACOs with their Certificate Letter no. NABET/ EIA/ 1922/ RA 0149. Rev. March 2021].

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

33.3.18 The Status of compliance of earlier EC was obtained from Regional Office, Chennai vide letter no. EP/12.1/SEIAA/2010-11/47/AP/0242 dated 14/02/2020 in the name of M/s. AMMAN-TRY SPONGE & POWER (P) Limited. The Action taken report regarding the

partially/non-complied condition was submitted to A.P. Pollution Control Board Vijayawada vide letter dated 16/03/2021.

S.No.	Non-Compliance details	Observation of RO (abridged)	Condition No.			Re-assessment by RO/Response by PP
			EC date	Specific	General	
i.	Report not submitted to MoEF, RO	The PA not submitted the monitored report once in six months to MoEF, RO but they have submitted to APPCB	29 <sup>th</sup> June 2010	iv	--	Six monthly compliance report has been submitted to the Regional Office, MoEF&CC in January 2021 by email.
ii.	Continuous Ambient Air Quality Monitoring Stations not installed	The PA is advised to install online Continuous Ambient Air Quality Monitoring Stations	29 <sup>th</sup> June 2010	v	--	EC permission has been obtained for integrated steel plant on 29-06-2010. However only SMS has been installed and the remaining units could not be installed within the EC validity period. CAAQMS could not be installed due to smaller unit in operation. However AAQ is being monitored periodically through NABL accredited external laboratory. We assure that we will provide CAAQMS immediately with the implementation the expansion proposal.
iii.	All the roads in the plant area are not concreted	WBM road is made. PA has sanctioned Rs. 20 Lakhs for making concrete roads.	29 <sup>th</sup> June 2010	viii	--	PA informed that construction of RCC internal road has been started with reinforcement also is done and will be completed by May 2021.

33.3.19 The proposal was considered by the EAC (Industry 1) in its 33<sup>rd</sup> meeting of the Re-constituted EAC (Industry-I) held on 30<sup>th</sup>-31<sup>st</sup> March, 2021. The observations and recommendations of EAC is given as below:

#### Observations of the Committee

33.3.20 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 Committee noted that plant site is located outside the Eco-Sensitive Zone at distance 5.58 km. This has also been certified by the PCCF(WL). In view of this, prior clearance from Standing Committee of the National Board for Wildlife (SCNBWL) is not applicable as per MoEF&CC O.M. dated 8/08/2019 and 16/07/2020.

### **Recommendations of the Committee**

33.3.21 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 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:

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

- i. Particulate matter emissions from the stacks shall be less than 30 mg/Nm<sup>3</sup>.
- ii. Air cooled condensers in the power plant shall be provided.
- iii. CEMS shall be provided on all process stacks and the signal shall be received in plant control room for central control of APCDs installed in the plant.
- iv. Plant roads shall be paved and an industrial vacuum cleaner shall be deployed to clean the roads regularly to keep fugitive emissions under control.
- v. Treated effluent from the plant shall be reused and recycled completely. STP shall be installed to treat domestic wastewater.
- vi. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report.
- vii. PP has committed to provide 70 % employment to local people after skill development
- viii. Green belt shall be planted in 35-acre land (33 %). In addition, the measures to arrest soil erosion with the objective of soil stabilization along the stream banks shall be taken up along with plantation of 4500 trees. 2500 trees shall be planted per ha for Green belt development. 40-meter green belt shall be provided towards the three water ponds surrounding the plot in North and South East. 30 m wide greenbelt shall be planted within the plant area towards the nearest village.
- ix. No ground water shall be drawn after three years of the date of issue of the Environment Clearance.
- x. PP shall recharge 2.0 lakh cubic meters per annum as per the Action Plan submitted for Rain Water Harvesting.
- xi. Necessary permission shall be obtained to construct the culvert to cross the stream.

- xii. Four Continuous Ambient Air Quality Monitoring Stations shall be installed and the location of these stations shall be as per the APPCB approval.

## **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 four Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories 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 or NABL accredited laboratories.

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

#### **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. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused in melting Furnaces.
- iv. Kitchen waste shall be composted or converted to biogas for further use.

#### **VII. Green Belt**

- i. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
- ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the 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.

33.4 Expansion of Ferro Alloy Plant from 11,500 TPA to 37,500 TPA (Product mix of Ferro Manganese, Silico Manganese & Ferrosilicon) **by M/s Shree Bholey Alloys Private Limited** located at Phase – IV/C- 1 (P) 3 Industrial Area, Village – Goradih/ Balidih, PO: Bokaro Steel City, Tehsil Jaridih, **Dist.- Bokaro Jharkhand** [Online Proposal No. IA/JH/IND/192743/2018; File No. J-11011/317/2009-IA II (I)] – **Environment Clearance** – regarding.

33.4.1 M/s. Shree Bholey Alloys Private Limited has made an application online vide proposal no. IA/JH/IND/192743/2018 dated 18/03/2021 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 & nonferrous) under Category “A” of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

**Details submitted by Project proponent**

33.4.2 The detail of the ToR is furnished as below:

<b>Date of application</b>	<b>Consideration</b>	<b>Details</b>	<b>Date of accord</b>
27.07.2018	36 <sup>th</sup> meeting of the EAC (Industry-I) held during 9-10 <sup>th</sup> October, 2018	Terms of Reference	09.11.2018

33.4.3 The project of M/s Shree Bholey Alloys Private located in Phase–IV/C-1(P) 3 Industrial Area, Village–Goradih/Balidih, PO: Bokaro Steel City, Tehsil Jaridih, Dist.-Bokaro, Jharkhand is proposed expansion of Ferro Alloy Plant from 11,500 TPA to 37,500 TPA (Product mix of Ferro Manganese, Silico Manganese & Ferrosilicon).

33.4.4 Environmental site settings

<b>S. No.</b>	<b>Particular</b>	<b>Details</b>
1.	Total land	2.28 ha

S. No.	Particular	Details		
		(Complete land within Bokaro Industrial Area)		
2.	Land acquisition details as per MoEF&CC O.M dated 7/10/2014	Complete land is under possession of M/s Shree Bholey Alloy Private Limited.		
3.	Existence of habitation & involvement of R&R, if any.	Not Applicable		
4.	Latitude and Longitude of the project site	<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>
		A.	23°40'59.80"N	86° 3'33.04"E
		B.	23°40'57.86"N	86° 3'35.29"E
		C.	23°41'3.39"N	86° 3'41.61"E
D.	23°41'5.99"N	86° 3'40.27"E		
5.	Elevation of the project site	255 m above mean sea level		
6.	Involvement of Forest land if any.	No		
7.	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> Damodar River - 6.90 km - North Khanjo Nadi – 4.76 km -West Garga Nadi – 6 km - South Garga DEM – 4.20 km - South		
8.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Protected Forest at 8.32 km in North		

33.4.5 The existing project was accorded environmental clearance vide Letter No:-J-11011/317/2009-IA.II.(I) dated: 30.09.2010. Consent to Operate for the existing unit was accorded by Jharkhand State pollution Control Board Vide Letter No:-JSPCB/HO/RNC/CTO-9268822/2021/246. The validity of CTO is up to 31.12.2025.

33.4.6 Implementation status of the existing EC:

S.No	Facilities	Units	As per EC dated:- 30.09.2010	Implementation Status as on date	Production as per CTO
1	Ferro Alloy Production	2 x 3.5 MVA SAF	Yes	Implemented	11,500 TPA

33.4.7 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

33.4.8 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	Ferro Alloy Unit	2 x 3.5 MVA SAF	11,500	1 x 15 MVA SAF	26,000	2x 3.5 MVA SAF and 1x 15MVA SAF	37,500

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

Raw Materials/ source	Quantity/Ton of Fe-Mn	Total Quantity(TPA)
Manganese Ore (Mines in MP)	2.4 tons	90,000
Coke (Imported)	0.8 ton	30,000
Dolomite (locally available)	0.25 ton	9,375
Carbon Paste (direct purchase)	0.03 ton	1,125
Quartz (locally available)	0.1 ton	3,750
<b>Total</b>	<b>3.58 tons</b>	<b>1,34,250</b>

33.4.10 The water requirement for the project is estimated as 110 m<sup>3</sup>/day, out of which 8 m<sup>3</sup>/day of fresh water requirement for domestic use will be obtained from the Ground water and the remaining requirement of 102 m<sup>3</sup>/day will be met from the Bokaro Industrial Area Development Authority (BIADA). The permission is obtained from BIADA vide Letter No. 427 dated:-14.05.2009.

33.4.11 The power requirement for the project is estimated as 22 MW (9 MW Existing + 13 MW Expansion) after expansion. The total power demand of the plant will be met from Damodar Valley Corporation.

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

Type of Waste	Quantity, TPD	Mode of Disposal
Slag from production of Ferro Manganese	229	Ferro Manganese Slag will be used as Raw Material for making Silico Manganese. Si-Mn slag and Fe-Si slag will be used as filler material in civil construction and road making.
Bag Filter Dust	16 (max)	Suitable for reuse in Si-Mn process. It is non-hazardous.

33.4.13 Baseline Environmental Studies:

Period	Post Monsoon Season: 1 <sup>st</sup> October 2018 to 31 <sup>st</sup> December 2018
AAQ parameters at 08 locations	PM <sub>2.5</sub> = 26.9 to 50.4 µg/m <sup>3</sup> PM <sub>10</sub> = 38.9 to 70.9 µg/m <sup>3</sup> SO <sub>2</sub> = 4.10 to 9.9 µg/m <sup>3</sup> NO <sub>2</sub> = 7.5 to 22.6 µg/m <sup>3</sup>
AAQ modelling	Incremental GLCs due to the expansion proposal: PM <sub>10</sub> = 0.12 µg/m <sup>3</sup> SO <sub>2</sub> = 0.05 µg/m <sup>3</sup> NO <sub>x</sub> = 0.05 µg/m <sup>3</sup> PM <sub>2.5</sub> = 0.12 µg/m <sup>3</sup>
Ground water quality at 07 locations	pH: 6.85 to 7.97, Total Hardness: 128 to 317 mg/l, Chlorides: 47 to 123 mg/l, Fluoride: 0.08 to 0.90 mg/l. Heavy metals are within the limits.
Surface water quality at 2 locations	pH: 7.16 to 7.69, DO: 6.3 to 6.7 mg/l, BOD: 0.6 to 0.8 mg/l and COD from 8 to 14 mg/l
Noise levels	49.3 to 70.2 dBA for the day time and 39.5 To 65.2 dBA For the Night time.
Traffic assessment study findings	Existing Level of Service is A (Excellent) with 0.018 V/C ratio. Incremental Load due to proposed project will be 3 vehicles/hour. Level of Service after expansion will be remain A (Excellent) with 0.020 V/C ratio.
Flora and fauna	Nil

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

Type of Waste	Quantity, TPD	Mode of Disposal
Slag from production of Ferro Manganese	229	Ferro Manganese Slag will be used as Raw Material for making Silico Manganese. Si-Mn slag and Fe-Si slag will be used as filler material in civil construction and road making.
Bag Filter Dust	16 (max)	Suitable for reuse in Si-Mn process. It is non-hazardous.

33.4.15 Public Consultation:

Details of advertisement given	08/09/2020
Date of Public Consultation	10/10/2020
Venue	BAIDA Bhawan, Village Goradih/ Baldih, Tehsil Jardih, Distirct Bokaro.
Presiding Officer	Director, District Rural Development Agency
Major issues raised	The issues raised during Public Hearing are: <ul style="list-style-type: none"> <li>• Pollution problems</li> <li>• Employment generation</li> </ul>

	<ul style="list-style-type: none"> <li>• Timely completion of commitment made by factory owner.</li> <li>• Water spraying on roads</li> </ul>
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**Action plan as per MoEF&CC O.M. dated 30/9/2020: Time frame: Three years**

S. No	Concerns raised during public hearing	Physical activity and action plan	Tentative budget Rs. Lacs
1.	Proposed Unit is welcome but many units in area are not doing pollution control measures. Local people should be given job opportunity.	Pollution control Fume Extraction System, ducts and Bag Filter will be installed, vehicles used during operation shall comply with the applicable pollution control norms and have the PUC certificates. Trees will be planted inside the plant premises as per guidelines.	Budget already covered under EMP
2.	Project Proponent should give written commitment that committee should be formed, which will identify and provide the jobs to needed people.	<p><b><u>Committee Formation</u></b> PP will also approach the Industrial Area Authority to for a Committee comprising of Industry people and Local people to address the issue of pollution.</p> <p><b><u>Jobs to Local People</u></b> PP has always encouraged local people to approach them directly at a defined time (3 pm) for getting job. Job seekers approach the Security who arranges a call with the HR Manager. The HR Manager interviews the person and takes decision as per company policy. PP will also approach the district Employment Exchange office and obtain the CVs of eligible local people for training and job opportunity.</p>	For training of local people, Rs.10 lakhs has been allocated. They will be trained in Bokaro ITI. Fee and scholarship will be given. 20 people will be annually trained in this manner and given job.
3.	Benefits of the CER budget should be given to all the nearby villages.	<p><b><u>CER Funds for Pollution Control</u></b> Following funds have been allocated for CER Tree plantation in industrial area (avenue roads)- 1000 trees– 3.0 Lakhs Cleaning of roads: PP will hire a Mobile sweeping machine for cleaning of roads in the industrial area once a month (Rs.3.0 lakhs).</p>	Rs.6 Lakhs
4.	He raised his concern about pollution level in industrial area and also requested to constitute	<p><b><u>Pollution in Industrial Area</u></b> Project is located in industrial area. CEMS will be installed in stack which will be</p>	--

S. No	Concerns raised during public hearing	Physical activity and action plan	Tentative budget Rs. Lacs
	the local committee, which will monitor pollution level in area.	connected to the SPCB server. Committee formation matter already discussed in points 1 and 2	
5.	Commitment should be fulfilled by the Project Proponent. Water sprinkling should be done on nearby roads on regular basis, Bleaching powder should be sprinkled in the wells of nearby villages and preference should be given to local people for the jobs. Also requested all that required work to be done in time frame	<b><u>Water Sprinkling on Roads</u></b> Cleaning of roads: EIA Consultant is of the view that dry cleaning of roads is more effective. For removing the deposited muck from road manual scrapping is effective. PP will hire a Mobile sweeping machine for cleaning of roads in the industrial area once a month (Rs.3.0 lakhs) In case musk deposits are seen on the Roads near our premises, PP will deploy one labour to scrap the deposited much.	--
6.	The proposal of the Unit is welcomed. However, stated that Pollution level in the industrial area is high and required measures should be taken to drop pollution level in area and jobs to be provided to local people.	Already provided above.	--

33.4.16 The capital cost of the project is Rs 29 Cr and the capital cost for environmental protection measures is proposed as Rs 1.56 Cr. The annual recurring cost towards the environmental protection measures is proposed as Rs 0.28 Cr. The total employment generation from the proposed project is 64 after expansion.

S. No	Particulars	Capital Cost (Rs.lakhs)	Annual Recurring Cost (Rs.lakhs)
1	Pollution Control during construction stage	10	--
2	Air Pollution Control Systems (Bag Filter, CEMS etc)	65	12
3	Water conservation, recycling measures, rainwater harvesting	10	0.5
4	Wastewater Management and disposal.	08	0.5
5	Environmental Management Department	20	5
6	Noise Reduction Systems	2	1
7	Occupational Health Management	12	5
8	Green Belt and Greenery Development	8	2

S. No	Particulars	Capital Cost (Rs.lakhs)	Annual Recurring Cost (Rs.lakhs)
9	Risk Mitigation and Safety Plan	5	2
10	Public Hearing Commitment Budget	16	--
<b>Total</b>		<b>156</b>	<b>28</b>

33.4.17 Total 0.76 ha (existing + expansion) area is earmarked for green belt development along the plant boundary. 1000 trees has been planted. Remaining 1000 trees will be planted in 2021 monsoon.

33.4.18 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.

33.4.19 Name of the EIA consultant: M/s. Grass Roots Research & Creation India (P) Ltd [S.No. 160, List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021]

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

33.4.20 The Status of compliance of earlier EC was obtained from Regional Office, Ranchi vide letter dated 01/01/2021 wherein the observations made are reproduced as below:

- i. (Specific condition i) Online Continuous stack emission monitoring systems for particulate matter has been provided in both the stack. However, during visit it was observed that fume extraction system was not sufficient. Profuse fumes observed on the shop floor. Partial fumes extracted and channelize through the bag filter and stack and not the total fumes. During visit online particulate matter emission observed to be 19.52 mg/Nm<sup>3</sup> for stack 1 and 51.5 mg/Nm<sup>3</sup> for stack 2, which is within the norms of Arc furnace but exceeding the norms prescribed in the condition. Manual stack monitoring data dated 11.11.2020 has been furnished and particulate matter concentration reported to be 75 mg/Nm<sup>3</sup> and 71 mg/Nm<sup>3</sup>.
- ii. (Specific condition ii) During visit coal was observed to be in use along with hard coke. Pet coke has not been used as fuel. PP also informed that charcoal has not been used.
- iii. (Specific condition iii) PP submitted ambient air quality monitoring data dated 11.11.2020 for three locations and four parameter i.e PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>2</sub>. The National Ambient Air Quality Standards in respect of frequency and number of parameter issued by the Ministry has not been followed.
- iv. (Specific condition iv) Metal separation is being carried out under covered shed. It was informed that the process is wet process and no dust generated. Part of the transport road is concreted. Coke was found to be kept in shed as well as open, covered shed for other raw material not observed, road inside the premises partially concreted, arrangement for fixed water sprinkler at unloading station not observed, water sprinkling not observed. Fugitive emission monitoring data not furnished.
- v. (Specific condition v) PP furnished a letter no 427 dated 14.05.2009 issued by Secretary, Bokaro Industrial Area Development Authority to M/s Bholloy Alloy Ltd, to provide water as per the requirement. During visit bore well was also observed. Details of approval from ground water authority have not been furnished. PP informed that water requirement is very low as it is used only for cooling purpose and is well within the permissible limit of 251.5 M3/day. PP also informed that the plant is

- designed on zero effluent discharge. There is no industrial effluent discharged from the process. However, proper measure to control the runoff water not observed.
- vi. (Specific condition vii) It was informed that cooling water are being re-circulated. Cooling tower outlet water sample analysis data of dated 11.11.2020 has been furnished. Leachate analysis report dated 25.07.2019 has been furnished. However, ground water analysis data has not been furnished. Run-off water collection and treatment from the raw material yard has not been observed.
  - vii. (Specific condition xii) Plantation observed inside the premises in few place in patches. Plantation also observed near the main gate. However, green belt as per CPCB norms not observed.
  - viii. (Specific condition xiii) As per the EC accorded total cost of the project is 7.83 Crore. 5% of total cost is 39.15lakhs. PP informed that corporate social responsibilities are under implementation. However, implementation details long with time bound action plan has not been furnished.
  - ix. (General condition iv) Noise level monitoring data dated 11.11.2020 has been furnished. As per the monitoring report noise level varies from 63.2 dB(A) to 73.5 dB(A). However, separate data for work zone, ambient, day time, and night time not furnished. Data furnished is titled noise level monitoring and date of monitoring is 11.11.2020.
  - x. (General condition v) PP reported that occupational health surveillance of the worker is being done on regular basis and records maintained as per the factory act. However, details of periodical medical examination have not been furnished.
  - xi. (General condition vi) Environmental management measure such as development of green belt as per CPCB norms, fume extraction system along with Bag filter for taping, water sprinkling, storage of raw material in covered space, pucca haul road partially constructed, water spray arrangement at all the dusty places and during unloading process are yet to be complied.
  - xii. (General condition viii) Raw material, waste all lying haphazardly and the premises are dusty with coal, soil dust. Details of periodical medical examination have not been furnished
  - xiii. (General condition ix) PP informed that company welfare measure and eco development programme is undertaken under CSR activity. However, details of activity not furnished.
  - xiv. (General condition xii) PP reported the condition as already informed. Date of start of construction activity reported to be 07.10.2010. However, the date of financial closure and final approval of the project by the concerned authorities has not been furnished.
  - xv. (General condition xiii) PP reported that the condition as already been complied. However, no details have been furnished on submission of clearance letter to concerned Panchayat, Zila Parishad/ Municipal Corporation, Urban Local Body. Website of the company was not found in the web. Environmental clearance has not been uploaded.
  - xvi. (General condition xiv) Status of compliance of stipulated environment clearance conditions and monitored data has not been uploaded in the website. Six monthly compliance reports with monitoring data submitted for the period April 20 to September 2020 vide letter no SBAPL/20-21/230 dated 03-12-2020. Display board has been provided at the main gate however, criteria sectoral parameters have not been displayed.

- xvii. (General condition xvi) Environmental Statement in form V for FY' 2019-20 has been submitted to Integrated Regional Office. However, website of the company was not found in the web. Environmental Statement has not been uploaded on the web.
- xviii. (General condition xvii) PP reported the condition as already complied. However, no newspaper cutting furnished to Integrated Regional Office. Details of advertisement have also not been furnished.

**Other Observation:**

- xix. During visit construction activity observed inside the plant (as depicted in Photo 1). It was stated that the construction activity is for shed construction.

33.4.21 The proposal was considered by the EAC (Industry 1) in its 33<sup>rd</sup> meeting of the Re-constituted EAC (Industry-I) held on 30<sup>th</sup>-31<sup>st</sup> March, 2021. The observations and recommendations of EAC is given as below:

**Observations of the Committee**

33.4.22 The Committee noted the following:

- i. Project proponent has not taken any concrete initiatives to comply with the observations of RO listed at paragraph number 33.4.20.
- ii. RM storage areas shall be covered. No mention has been made about provision of garland drains and collection pits for run off material.
- iii. Industrial vacuum cleaners are proposed for regular sweeping of roads.
- iv. Side extraction hoods have been proposed for SAFs.
- v. Bag filters have not been proposed in RM handling area.
- vi. EIA report has following deficiencies;
  - a. SAF proposed is open type with side extraction hoods.
  - b. Slag storage capacity inside the plant has not been given. It shall not be more than 90 days.
  - c. Noise levels are monitored as far away as 8 Km from plant.
  - d. BOD level has been reported as 0.6 mg/L in surface water containing 1050 MPN/100 cc Coliform. No explanation for the same is available in the report. It is also not clear which method has been used to determine BOD values in less than 01 ppm range.
  - e. SE and EB data have not been subjected to quality check and also not interpreted. One cannot distinguish between primary and secondary data.
  - f. There is a list of references given in chapter three in 3 pages. One does not understand the purpose of the reference list and no cross references are mentioned.
  - g. Chapter 4 is a text book. Impacts and mitigation measures have not been quantified.
  - h. CER table # 8.1 in Section 8.2 of EIA report has not been presented as per the requirement of OM dated 30<sup>th</sup> Sept 2020.
  - i. Only 1500 trees per ha have been proposed for green belt against a requirement of 2500 trees per ha.
  - j. TOR point #9 has not been addressed in section 10.3 and 10.4 of EIA report as required.
  - k. Under section 10.6, the EMPs considered for implementation in post project scenario are like a text book. EMPs have not been quantified and budgeted, no time bound program given, no monitoring and reporting system has been described.

1. Chapter 11 has not been presented as per EIA notification 2006.
- vii. Incomplete information is provided in Form 2 (For instance in section 5, 13, 21, 29, 30 etc.,) which needs to be revisited.

### Recommendations of the Committee

- 33.4.23 In view of the foregoing, EAC after deliberations recommended to return the proposal in its present form to address the shortcomings enumerated above.
- 33.5 Expansion of Steel Plant by increasing the capacity of Rolling Mill (30,000 TPA to 1,80,000 TPA), Sponge Iron (90,000 TPA to 1,50,000 TPA), MS Billets (36,000 TPA to 1,86,000 TPA), Pig Iron (90,000 TPA), Iron Ore Pellets (6,00,000 TPA), Captive Power Plant (10 MW to 25MW) and Fly Ash Blocks (2000 bricks/day to 8000 bricks/day) **M/s Sunvik Steels Pvt. Limited** at Village Jodidevarahalli, Kallambella Hobli, Taluk Sira, **District Tumkur, Karnataka** [Online Proposal No. IA/KA/IND/79611/2008; MoEFCC File No. J-11011/959/2008-IA.II(I)] – **Environmental Clearance**.
- 33.5.1 M/s Sunvik Steels Pvt. Limited has made an online application vide proposal no. IA/KA/IND/79611/2008 dated 20/09/2018 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) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

### Details submitted by Project proponent

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

Date of Application	Consideration	Details	Date of Accord
22 <sup>nd</sup> May 2015	2 <sup>nd</sup> Meeting EAC held during 28 <sup>th</sup> – 30 <sup>th</sup> December 2015	Terms of Reference issued	27 <sup>th</sup> May 2016

- 33.5.3 The project of M/s. Sunvik Steel Private Limited located in Village Jodidevarahalli, KallambellaHobli, Taluk Sira, District Tumkur, Karnataka is for Expansion of Steel Plant by increasing the capacity of Rolling Mill (30,000 TPA to 1,80,000 TPA), Sponge Iron (90,000 TPA to 1,50,000 TPA), MS Billets (36,000 TPA to 1,86,000 TPA), Pig Iron (90,000 TPA), Iron Ore Pellets (6,00,000 TPA), Captive Power Plant (10 MW to 25MW) and Fly Ash Blocks (2000 bricks/day to 8000 bricks/day).
- 33.5.4 Environmental Site Settings

S. No.	Particulars	Details
i.	Total land	39.46 Ha. (Private land)
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	• Existing plant is located in 20 Ha. / 49.5 acres.



S. No.	Particulars	Details		
		<ul style="list-style-type: none"> <li>• Additional land of 19.4 Ha. / 48.0 Acres has been envisaged under proposed expansion project.</li> <li>• Total land after proposed expansion will be 39.4 Ha. / 97.5 Acres</li> </ul> Out of 48 acres of additional land proposed, 12 acres 38 Guntas, is acquired and for remaining land consent have been obtained from the respective land owners.		
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	Points	Latitude	Longitude
		1.	13°33'23.16"N	77° 0'56.80"E
		2.	13°33'29.08"N	77° 0'43.78"E
		3.	13°33'27.46"N	77° 0'38.36"E
		4.	13°33'29.24"N	7° 0'33.33"E
		5.	13°33'25.52"N	77° 0'28.83"E
		6.	13°33'16.92"N	77° 0'29.67"E
		7.	13°33'12.30"N	77° 0'55.21"E
		8.	13°33'18.69"N	77° 0'55.77"E
v.	Elevation of the project site	792 m AMSL		
vi.	Involvement of Forest land if any.	Nil		
vii.	Water body exists within the project site as well as study area	<b><u>Project site:</u></b> Nil <b><u>Study area:</u></b> A Seasonal Nallah is passing proximate to the site. Dodda Halla stream: 5.0 Km in West		
viii.	Existence of ESZ/ ESA/ national park / wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil. Ankasandra Reserve Forest at 6.2 km in WSW.		

33.5.5 The existing project was accorded environmental clearance vide F.No. J-11011959/2008-IA II (I) dated 10<sup>th</sup> June 2009. Consent to Operate for the existing unit was accorded by Karnataka State Pollution Control Board vide consent no. AW-300966. The validity of CTO is up to 30<sup>th</sup> June 2021.

33.5.6 Implementation status of the existing CTO:

S.No.	Facilities	Units	As per EC dated 10/06/2009	Implementation status as on	Production as per CTO
1.	Sponge Iron	TPA	90,000 TPA	In operation	90,000 TPA

S.No.	Facilities	Units	As per EC dated 10/06/2009	Implementation status as on	Production as per CTO
2.	SMS	TPA	36,000 TPA	In operation	36,000 TPA
3.	Rolling Mill	TPA	100 MTPD	In operation	30,000 TPA
4.	Captive Power Plant (WHRB + AFBC)	TPA	10 MW (3 x11 TPH + 1x35TPH)	In operation	10 MW (6 MW + 4 MW)

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

S.No.	Units	Product	Existing Plant in operation	Proposed Expansion	Total after proposed expansion
1.	DRI Kiln based Sponge Iron Plant	Sponge Iron	90,000 TPA (3 x 100 TPD)	60,000 TPA (1 x 200 TPD)	1,50,000 TPA
2.	Induction Furnace based Steel Melting Shop	M S Ingots/Billets	36,000 TPA (1 x 12 T)	1,50,000 TPA (2 x 25 T)	1,86,000 TPA
3.	Rolling Mill	Rolled products	30,000 TPA (1 x 100 TPD)	1,50,000 TPA (1 x 500 TPD)	1,80,000 TPA
4.	Captive Power Plant	Power	WHRB - 6 MW & AFBC - 4 MW	WHRB - 1 x 5 MW & AFBC - 1 x 10 MW	25 MW
5.	Blast Furnace	Pig iron	--	1 x 125 m <sup>3</sup> (300 TPD)	90,000 TPA
6.	Tunnel Kilns	Cold Briquetted Iron (CBI)	--	2 x 100 TPD	60,000 TPA
7.	Iron Ore Beneficiation & Pelletisation	I/O concentrate / Pellets	--	1 x 2000 TPD	6,00,000 TPA
8.	Fly-Ash Brick Plant	Fly ash*	2000 Bricks/day	18000 Bricks/Day	20000 Bricks/Day
9.	Fly-Ash Beneficiation Plant (dropped)**	--	--	1 x 100 TPD (dropped)*	30,000 TPA (dropped)*
10.	Slag Crusher & Beneficiation Plant	--	1 x 15 TPD	1 x 30 TPD	13,500 TPA

S.No.	Units	Product	Existing Plant in operation	Proposed Expansion	Total after proposed expansion
<b>Note:</b> * During ToR Brick Fly Ash plant was enhanced from 2000 bricks/ day to 8000 Bricks/ day where as in EIA/ EMP report fly ash plant capacity enhance from 2000 Bricks/ day to 20000 Bricks/ day. ** During ToR, Fly-Ash Beneficiation Plant of 1 x 100 TPD capacity was included. Now it is proposed to Drop Fly-Ash Beneficiation Plant.					

33.5.8 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:

Raw Material		Quantity	Sources	Distance in Km w.r.t. plant	Mode of Transport
<b>For Iron Ore beneficiation plant (Iron ore concentrate)</b>					
Iron ore fines		9,00,000	Karnataka (E-auctions conducted by Monitoring Committee)	~200	By rail & road (through covered trucks)
<b>For Pellet Plant (Pellets)</b>					
Iron ore Concentrate		6,30,000	Own Generation	Nil	Covered Conveyor
Bentonite		9,000	Karnataka	200 to 300	By road (through covered trucks)
Limestone		9,000	Karnataka	~100	By road (through covered trucks)
Coke breeze		36,770	Indonesia / South Africa / Australia	~350	By Sea, Rail & Road (Covered trucks)
Furnace Oil		8100 KL/annum	Karnataka	~350	By road (through Tankers)
Coal (Gasifier)	Imported	23,750	Indonesia / South Africa / Australia	~350	By Sea, Rail & Road (Covered trucks)
<b>For DRI Kilns (Sponge Iron)</b>					
Pellets (for 1 x 200 TPD DRI Kilns)		96,000	Own generation	---	Covered Conveyor
Dolomite		3,000	Karnataka	~100	By road (through covered trucks)
Coal (1 x 200 TPD DRI Kilns)	Indian	78,000	SCCL, Telangana / SECL	~750	By rail & road (through covered trucks)
	Imported	46,200	Indonesia /	~350	Through sea route,

Raw Material		Quantity	Sources	Distance in Km w.r.t. plant	Mode of Transport
			South Africa / Australia		rail route & by road
<b>For Induction Furnace (MS Billets)</b>					
Sponge Iron		1,08,000	In plant generation & External purchase	---	By road (through covered trucks)
		42,000		~200	
Scrap / end cuttings from Rolling mill		22,500	Karnataka	~200	By road (through covered trucks)
Ferro Alloys		2,250	Karnataka	~200	By road (through covered trucks)
<b>For Rolling Mill (TMT bars &amp; Structural Steel)</b>					
M.S. Ingots / Steel billets		1,53,000	In plant generation & External purchase	Nil	By road (through covered trucks)
		13,000		~200	
Furnace oil		5100 KL/annum	Karnataka	~350	By road (through Tankers)
Coal (Gasifier)	Indian	18,000	SCCL, Telangana / SECL	~750	By rail & road (through covered trucks)
	Imported	10,500	Indonesia / South Africa / Australia	~350	By Sea, Rail & Road (Covered trucks)
<b>For Mini Blast Furnace (Pig Iron)</b>					
Iron ore lump		1,49,700	Karnataka	~200	By rail & road (through covered trucks)
BF coke		45,000	Andhra Pradesh	~350	By road (through covered trucks)
Quartzite		2,250	KARNATAKA	~200	By rail & road (through covered trucks)
Manganese ore		1350	KARNATAKA MOIL, Maharashtra	~200 ~1000	By rail & road (through covered trucks)
<b>For FBC Boiler [Power Generation 10 MW]</b>					
Dolochar		18,000	In plant generation	Nil	through covered conveyors
Coal	Indian	46,500	SCCL, Telangana /	~750	By rail & road (through covered

Raw Material	Quantity	Sources	Distance in Km w.r.t. plant	Mode of Transport
		SECL		trucks)
Imported	25,200	Indonesia / South Africa / Australia	~350	Through sea route / rail route / by road
<b>For Tunnel Kiln (Cold Briquetted Iron)</b>				
Iron ore concentrate	1,00,000	Karnataka	~200	By road (through covered trucks)
Limestone	3,600	Karnataka	~200	By road (through covered trucks)
Coal for Tunnel Kilns & Coal Gasifier (Imported)	47,000	Indonesia / South Africa / Australia	~350	Through sea route / rail route / by road

33.5.9 The water requirement in the existing operating plant is 642 KLD & same is being sourced from Ground Water source and for proposed expansion it is 1000 KLD, it will be sourced from Ground water source only. NOC from Karnataka Ground Water Authority (KGWA) has been obtained vide letter No. KGWA/GW/NOC/06/2019-20/1485 dt. 01.07.2019 and same is valid till 01.07.2022 for existing operating plant and an application has been submitted to Karnataka Ground Water Authority (KGWA) for 1000 KLD for proposed expansion and same is under process.

33.5.10 Total power required for the existing units & for the proposed units will be 45.8 MW which will be partly met from the existing & expansion captive power plants of 25 MW & Balance 20.8 MW will be sourced from the State Grid.

33.5.11 Baseline Environmental Studies:

Period	October 2015 to December 2015
AAQ parameters at 8 locations	PM <sub>2.5</sub> = 17.1 to 31.4µg/m <sup>3</sup> PM <sub>10</sub> = 29.6 to 52.3µg/m <sup>3</sup> SO <sub>2</sub> = 9.5 to 15.9µg/m <sup>3</sup> NO <sub>x</sub> = 9.9 to 17.9µg/m <sup>3</sup> CO = 355 to 690µg/m <sup>3</sup>
AAQ modelling (Incremental GLCs)	PM <sub>10</sub> = 7.62µg/m <sup>3</sup> SO <sub>2</sub> = 21.7µg/m <sup>3</sup> NO <sub>x</sub> = 12.9µg/m <sup>3</sup> CO = 2.0µg/m <sup>3</sup>
Ground water quality at 8 locations	pH: 7.1 to 7.6, Total Hardness: 177 to 302mg/l, Chlorides:105 to 180 mg/l,Fluoride:0.18 to 0.36 mg/l. Heavy metals are within the limits.
Surface water quality at 4 locations	pH: 7.8 to 8.1; DO: 3.5 to 6.6 mg/l and BOD: 3.2 to 4.8mg/l.COD from8.5 to 13mg/l
Noise levels	44.0dBA to 65 dBA for the day time and 38.0

	dBATo61.0forthe Night time.
Traffic assessment study findings	<p>Traffic load during the operation of the existing plant (Baseline) : 7764 PCU/day</p> <p>Additional Traffic load during operation of the expansion project : 3225.1 PCU/day</p> <p>Total Traffic load during operation of existing and proposed expansion load: 10989.1 PCU/day</p> <p>Traffic Capacity as per the IRC 73: 1980 for Highways: 20000 PCU/day</p>
Flora and fauna	<p>5 nos. of Schedule – I species are present in the study area in Thimlapura Wildlife Sanctuary at 9.7 Kms. from the project site.</p> <p>Conservation Plan has been approved by PCCF, Forest Department, Govt. of Karnataka vide letter KFD/WL/LAND/(LND)/40/2019 dated 24.11.2020 with conservation budget of Rs.38.6 Lakhs to be implemented in Five years.</p>

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

S.No	Waste / By product	Quantity (TPA)	Method of disposal
1.	Tailingsfrom I/o beneficiation unit	2,70,000	Will be given to M/s. KEJ Minerals Pvt. Ltd. for their processing plant.
2.	Ash from Pellet plant	16,200	Will be completely utilized in our own existing & proposed brick manufacturing unit.
3.	Ash from DRI	10,800	Will be completely utilized in our own existing & proposed brick manufacturing unit.
4.	Dolocharfrom DRI	18,000	Will be used in FBC boiler as fuel
5.	Wet scrapper sludge from DRI	27,000	Will be used in own brick manufacturing unit and remaining quantity will be given to other brick manufacturers.
6.	Kiln Accretion Slagfrom DRI	6,000	Will be used in road construction
7.	Granulated slag	27,000	Will be given to M/s. Samvruddi Concrete Blocks & M/s. Pragathi Enterprises for manufacturing Concrete blocks in their units.
8.	Slag from SMS	15,000	Slag will be crushed and after recovery of iron, it will be used for road construction.

S.No	Waste / By product	Quantity (TPA)	Method of disposal
9.	Mill Scale from Rolling Mill	3,000	Mill scales will be given to nearby Ferro alloys manufacturing units or casting units.
10.	End cuttings from Rolling Mill	4,500	Recycled back as raw material in own induction Furnaces
11.	Char from Tunnel Kiln	48	Will be used in Gasifier as fuel
12.	Ash from Power Plant • with Indian coal	33,525	Will be completely utilized in our own existing & proposed brick manufacturing unit.
13.	Ash / cinders generated from Gasifier units	20	Will be used in own brick manufacturing unit
14.	Tar from Gasifier	4.0	Will be Given to TAR recyclers or Road making contractors.
15.	Dust from APCS	300	It will be used in own brick manufacturing unit.

33.5.13 Public Consultation:

Details of advertisement given	11 <sup>th</sup> August 2017
Date of Public Consultation	12 <sup>th</sup> September, 2017
Venue	Near premises of Sri Rama Devara Temple Community Hall, Haldodderi Village
Presiding Officer	Deputy Commissioner
Major issues raised	<ul style="list-style-type: none"> <li>• Authorities have not given wide publicity regarding the Environmental Public Hearing</li> <li>• Pollution Problem &amp; Crop damage</li> <li>• Roads damaged due to plying of heavy vehicles</li> <li>• Avenue plantation</li> <li>• Employment</li> <li>• Ground water depletion</li> </ul>

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

S. No.	Physical activity and action plan	Year of implementation					Total Expenditure (Rs. In Crores)	
		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>		
<b>A</b>	<b>Based on need based &amp; SIA study</b>							
1	<i>Community &amp; Infrastructure Development Programmes</i>							
	• Construction of Public Toilets	Physical No. & Villages	2 nos. in Jodidevarahalli Village	2 nos. in Saraparahali Village	2 nos. in Jogihalli Village	---	---	0.18

S. No.	Physical activity and action plan	Year of implementation					Total Expenditure (Rs. In Crores)	
		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>		
		Budget in Rs. Crores	0.06	0.06	0.06	---	---	
	• Providing LED Street light with solar panel	Physical No. & Villages	15 nos. in Jogihalli Village	15 nos. in Devarahalli Village	15 nos. in Haldodderi Village	15 nos. in Saraparahalli Village	15 nos. in Somasagara Village	0.15
		Budget in Rs. Crores	0.03	0.03	0.03	0.03	0.03	
	• Providing proper drainage & sanitation facilities	Physical No. & Villages	--	--	2 nos. in Ajjanahalli Village	--	2 nos. in Gollarahatti Village	0.20
		Budget in Rs. Crores	--	--	0.1	--	0.1	
	• Providing Grabage collection van in villages	Physical No. & Villages	1 no. in Jogihalli Village	--	1 no. in Devarahalli Village	--	1 no. in Haldodderi Village	0.15
		Budget in Rs. Crores	0.05	---	0.05	---	0.05	
2	<i>Education &amp; Sports programmes</i>							
	• Providing infrastructure support facilities i.e. furniture, computers, library, sports equipment etc. along with Digital Class Room	@ Village	Chikkanahalli Village	---	Sira Village	---	Nelahalu Village	0.15
		Budget in Rs. Crores	0.05	---	0.05	---	0.05	
	• Providing Model Anganwadi Centre in consultations with State Women and Child Development Department	Physical No. & Villages	---	---	---	1 no. in Devarahalli Village	---	0.10
		Budget in Rs. Crores	---	---	---	0.1	---	
	• Renovation of school buildings	@ Villages	Nelahalu Village	---	Chikkanahalli Village	---	---	0.18
		Budget in Rs. Crores	0.09	---	0.09	---	---	
	• Construction of multiple toilets	Physical No. & Villages	2 nos. in Chikkanahalli Village	---	2 nos. in Sira Village	---	2 nos. in Nelahalu Village	0.15



S. No.	Physical activity and action plan	Year of implementation					Total Expenditure (Rs. In Crores)	
		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>		
	for Boys and Girls in the schools	Budget in Rs. Crores	0.05	---	0.05	---	0.05	
	• Distribution of tricycles to handicapped students	Physical No. & Villages	100 nos.in Sira & Tumkur Mandals	---	---	---	---	0.05
		Budget in Rs. Crores	0.05	---	---	---	---	
3	<i>Medical &amp; health related activities</i>							
	• Providing dedicated Ambulance with emergency equipments to address the emergency needs	Physical No.	1 no.	---	---	---	---	0.2
		Budget in Rs. Crores	0.2	---	---	---	---	
	• Further strengthening of Primary Health Center (by Purchasing equipments & Renovations)	Physical No. & Villages	---	Jogihalli Village	---	Haldodderi Village	---	0.4
		Budget in Rs. Crores	---	0.2	---	0.2	---	
4	Financial support to farmers in Jogihalli & Devarahalli Village & Provide fertilizers to improve the soil supplement such as N,P,K	@ Village	Farmers of Jogihalli & Devarahalli Village					0.35
		Budget in Rs. Crores	0.1	0.1	0.05	0.05	0.05	
<b>B Based on Public Consultation / Hearing</b>								
1	Laying patches of road connecting Jogihalli Village & Plant site	Physical No. & Villages	2.0 Kms. road b/w Jogihalli & Plant site	---	---	---	---	0.3
		Budget in Rs. Crores	0.3	---	---	---	---	
2	Construction of RWH wells in the surrounding villages	Physical No. & Villages	5 nos. in Jogihalli Village	---	5 nos. in Devarahalli Village	---	5 nos. in Haldodderi Village	0.75
		Budget in Rs. Crores	0.25	---	0.25	---	0.25	

S. No.	Physical activity and action plan		Year of implementation					Total Expenditure (Rs. In Crores)
			1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	
3	Skill & Entrepreneur Development Program in accordance with guidelines issued by National Skill Development Council, Govt. of India.	Physical No. & Villages	Unemployed youth in the Jogihalli, Devarahalli & Haldodderi villages will be provided with Industrial training to absorb in our unit and other industrial units in the area	---	Necessary assistance will be provided to unemployed youth in the Jogihalli, Devarahalli & Haldodderi to have self-employment	---	Assistance will be provided to Women Self Help groups in the Jogihalli, Devarahalli & Haldodderi villages	0.80
		Budget in Rs. Crores	0.40	---	0.25	---	0.15	
4	Avenue Plantation development between Jogihalli & Haldodderi connecting plant	Physical No. & Villages	1600 no. of saplings b/w Jogihalli & Haldodderi connecting plant	---	---	---	---	0.14
		Budget in Rs. Crores	0.14	---	---	---	---	
<b>Total</b>			<b>1.53</b>	<b>0.55</b>	<b>0.89</b>	<b>0.54</b>	<b>0.74</b>	<b>4.25</b>
<b>C Recurring expenditure under CSR as per Companies Act 2014</b>								
1	Health checkup & distribution of general medicines will be carried out periodically in surrounding villages @ Rs. 5.0 Lakhs every year							
2	Repair and maintenance of damaged road between Jogihalli & Haldodderi Villages (2.0 Kms.) @ Rs. 5.0 Lakhs every year							

33.5.14 The capital cost of the project is Rs. 550 Crores and the capital cost for environmental protection measures is proposed as Rs. 51.25 Crores (inclusive of budget for Social & Infrastructure development as per OM dt. dated 30/09/2020). The annual recurring cost towards the environmental protection measures is proposed as Rs. 3.55 Crores. The employment generation from the proposed project / expansion is 150 people during operation of the proposed expansion and 300 people during construction of the proposed units. The details of cost for environmental protection measures is as follows:

S.No.	Description of Item	Expenditure (Rs. In Crores)	
		Capital Cost	Recurring Cost
i.	Air Emission Management	33.2	2.0
ii.	Wastewater Management	1.3	0.5
iii.	Solid waste Management	4.5	0.3
iv.	Greenbelt development, Land scaping, Noise	1.9	0.1

S.No.	Description of Item	Expenditure (Rs. In Crores)	
		Capital Cost	Recurring Cost
	Management, RWH etc.		
v.	Fire Safety Systems	2.9	0.05
vi.	Construction of Bund	0.3	---
vii.	Environmental Monitoring	2.1	0.30
viii.	Occupational Health & Safety	0.8	0.20
ix.	Addressal of Public Consultation Concerns & need based	4.25	0.10
	<b>Total</b>	<b>51.25</b>	<b>3.55</b>

33.5.15 Greenbelt will be developed in 13.36 ha. / 33.0 acres which is about 33% of the total project area. Greenbelt width varying from 7 to 95 m have been developed all around the plant, 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. There are 11,750 no. of plants have already been developed in the existing plant premises. Total no. of 21,650 saplings will be planted and nurtured in 13.36 hectares in 3 years.

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

33.5.17 Name of the EIA consultant: M/s Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [S.No.129, List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021].

33.5.18 Certified compliance report from Regional Office

The Status of compliance of earlier EC was obtained from Integrated Regional Office, Bangalore vide letter no. F.No. EP/12.1/629/KAR, dated 08.01.2021 in the name of M/s. Sunvik Steel Pvt. Ltd. The Action taken report / Undertaking letter regarding compliance of the partially/non-complied condition was submitted to Integrated Regional officer MoEF&CC, Bangalore vide letter dt. 15.01.2021. MoEF&CC (RO), Bangalore evaluated the same and has issued F.No. EP/12.1/629/KAR-1228 dt. 15.02.2021. The details of the observations made by RO in the report dated 15.02.2021. along with its re-assessment / present status as furnished by the PP is given as below:

S.No.	Non-Compliance details	Observation of RO (abridged)	Condition No.			Re-assessment by RO/Response by PP
			EC date	Specific	General	
iv.	Settlement of dust particles has been found in the plant area.	PA should address these issues and improve efficiency of dust collection system	10 <sup>th</sup> June 2009	i	--	There are few points of dust emission which were observed during RO visit, same have been reviewed and identified certain sources for leakage of dust and submitted action plan. Accordingly

S.No.	Non-Compliance details	Observation of RO (abridged)	Condition No.			Re-assessment by RO/Response by PP
			EC date	Specific	General	
						replaced nozzles at fuel feeding system to AFBC boiler, provided the cover to bag filter discharge points etc.
v.	Online monitoring system	Continuous online monitoring has been installed; however, it has not been connected to the server of the CPCB/SPCB	10 <sup>th</sup> June 2009	i	--	Linkage with CPCB server has been completed and provided the link
vi.	Greenbelt	It is noted that out of total area of 49.5 acres, greenbelt developed in an area of about 14 acres, which is 27% against requirement of 35%	10 <sup>th</sup> June 2009	xvi	---	PA has informed that Greenbelt development was taken up through Forest Department in an area of 22.16 acres which amounts to more than 35% of total plant. However, due to harsh weather conditions, plantation did not survive. Further assured to carry out additional plantation in consultation with Forest Department.
vii.	Environment Management Cell	The condition on Establishment of EMC has not been stipulated in the EC. However, the PA has constituted EMC but being a pollution potential unit, a qualified environmental person to be	10 <sup>th</sup> June 2009	--	--	Qualified person has been recruited in the in EMC.

S.No.	Non-Compliance details	Observation of RO (abridged)	Condition No.			Re-assessment by RO/Response by PP
			EC date	Specific	General	
		appointed in the cell				
viii.	Housekeeping	Tarring of remaining internal road is yet to be done and housekeeping needs to be improved	10 <sup>th</sup> June 2009	xii	---	PA has taken sincere efforts to provide all internal roads with paved blocks and work is in progress. PA should complete the pavement of remaining internal roads within three and inform this office.
ix.	Display of monitoring data	Monitoring data need to be displayed at the entrance	10 <sup>th</sup> June 2009	iii	---	PA has provided a display at the entrance.

33.5.19 M/s. Sunvik Steel Private Limited has made an online application vide proposal no. IA/KA/IND/79611/2008 dated 20<sup>th</sup> September 2018. The proposal was considered in 36<sup>th</sup> EAC meeting held on 9<sup>th</sup> -10<sup>th</sup> October 2018 and committee advised to submit the additional information and subsequently raised ADS vide dt. 13<sup>th</sup> November 2018.

**Observations of the Committee (36<sup>th</sup> EAC dated 9-10<sup>th</sup> October 2018)**

33.5.20 After detailed deliberations, the Committee observed that non-compliance for two of the earlier environmental conditions granted in 2009 i.e. prior permission for abstraction of ground water and prior approval from the State Forest Department regarding likely impact of the emissions of the plant on the reserved forest and the project proponent shall also be required to prepare and implement conservation plan for wildlife in consultation with State Forest Department. The Committee also noted several terms of reference prescribed were not addressed properly.

**Recommendations of the Committee (36<sup>th</sup> EAC dated 9-10<sup>th</sup> October 2018)**

33.5.21 The committee advised to submit the following information/reports for further consideration of the proposal:

- i. Closure of non-compliances of the earlier environmental clearance conditions duly certified by Regional Officer of MoEF&CC.
- ii. Revised Corporate Environmental Policy prescribing standard operating procedure and hierarchal system for reporting of non-compliances /infringements, if any, to the Board of Directors at periodical intervals.
- iii. Substantiating documents for acquisition of land for the proposed project /consent of the owners.
- iv. Revised action plan / commitment of the project proponent for the issues raised during the public hearing including time bound program and budgetary allocations.

- v. The Revised Corporate Environmental Responsibility which shall be in capex mode treated as a project and shall be implemented in concurrence with the project implementation.
- vi. The project proponent shall submit an action plan for protection of drainage lane /stream passing through the plant premises.
- vii. The project proponent shall submit the scheme for slime management, inter alia, including provision of tailings disposal and area for disposal of tailings.

33.5.22 Project Proponent submitted the reply to the additional information sought by committee vide proposal no. IA/KA/IND/79611/2008 dated 19/03/2021. The summary of the same is reproduced as below:

S.No.	Additional Details Sought	Reply by proponent
i.	Closure of non-compliances of the earlier environmental clearance conditions duly certified by Regional Officer of MoEF&CC.	Closure of non-compliance of earlier EC issued by Integrated Regional Office, MoEF&CC, Bangalore vide F.No. EP/12.1/629/KAR-1228 dt. 15.02.2021 is submitted by PP
ii.	Revised Corporate Environmental Policy prescribing standard operating procedure and hierarchal system for reporting of non-compliances /infringements, if any, to the Board of Directors at periodical intervals	Revised Corporate Environmental Policy is submitted by PP.
iii.	Substantiating documents for acquisition of land for the proposed project /consent of the owners	<ul style="list-style-type: none"> <li>• Existing plant is located in 20 Ha. / 49.5 acres.</li> <li>• Additional land of 19.4 Ha. / 48.0 Acres has been envisaged under proposed expansion project.</li> <li>• Total land after proposed expansion will be 39.4 Ha. / 97.5 Acres</li> </ul> Out of 48 acres of additional land proposed, 12 acres 38 Guntas, is acquired and for remaining land consent have been obtained from the land owners.
iv.	Revised action plan / commitment of the project proponent for the issues raised during the public hearing including time bound programme and budgetary allocations	Revised action plan/commitment of the PP for issued raised during PH including time bound programme and budgetary as per OM dt. 30.09.2020 is submitted by PP
v.	The Revised Corporate Environmental Responsibility which shall be in capex mode treated as a project and shall be implemented in concurrence with the project	Revised budget for Social and Infrastructure development activities along with physical targets as per OM 30.09.2020 is submitted by PP

S.No.	Additional Details Sought	Reply by proponent
	implementation	
vi.	The project proponent shall submit an action plan for protection of drainage lane /stream passing through the plant premises	<p>➤ No drainage line / stream is passing through the plant premises.</p> <p>➤ However, a seasonal nallah is passing proximate to the site on the Northern side.</p> <p>➤ A bund within the site boundary will be made to prevent any flood water entering the plant or any wastewater entering from the plant into the seasonal nallah.</p> <p><u>Wastewater Management:</u></p> <ul style="list-style-type: none"> <li>• In the existing plant zero liquid effluent discharge system is being maintained and similar pattern will be maintained during implementation of present proposal.</li> <li>• The effluent generated from I/O Beneficiation plant, Pellet plant, DRI plant, Tunnel Kiln, SMS &amp; Rolling Mill units will be sent to settling tank &amp; will be recycled through closed circuit cooling system. There will not be any effluent generation from the Fly-Ash Brick Plant, Slag Crusher &amp; Beneficiation Plant.</li> <li>• The effluent generated will be in the form of GCP blow down (From BF), Boiler blow down, D.M. Plant regeneration water and sanitary water.</li> <li>• Effluent from Gas cleaning plant of Blast Furnace will be treated in a settling tank and after treatment it will be recycled.</li> <li>• Effluent from power plant will be treated and after ensuring compliance with KSPCB norms, it will be utilized for dust suppression, ash conditioning, slag granulation and for greenbelt development.</li> <li>• Sanitary waste water will be treated in STP.</li> <li>• Garland drains will be provided around all the raw material stacking areas</li> </ul>
vii.	The project proponent shall submit the scheme for slime management, inter alia, including provision of tailings disposal and area for disposal of tailings	<p>Tailing generated from the proposed project will be given to M/s. KEJ Minerals Pvt. Ltd. for their processing plant.</p> <p>Tailings will be taken to a filter press and then it will be stored in a tailings pond with 30 days capacity (50m x 35m x 6.5m).</p>

33.5.23 The proposal was re-considered by the EAC (Industry 1) in its 33<sup>rd</sup> meeting held on 30<sup>th</sup>-31<sup>st</sup> March, 2021. The observations and recommendations of EAC is given as below:

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

33.5.24 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 satisfied with the ADS reply submitted by the proponent.

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

33.5.25 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to 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:

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

- i. PM emission level from stacks shall be less than 30 mg/Nm<sup>3</sup>.
- ii. Air cooled condensers shall be used in CPP.
- iii. 642 KLD GW shall be used. Permission for withdrawal shall be obtained. PP shall make alternate arrangement for water from Surface water sources in next three years.
- iv. Land use shall be changed to Industrial purpose by December, 2021.
- v. PP shall protect the seasonal nallah passing through the property and land scape it. Green belt shall be planted in 33-acre land (33 %). Measures to arrest soil erosion with the objective of soil stabilization along the nallah (stream) banks shall be taken up. 2500 trees shall be planted per ha for Green belt development.
- vi. Sanitary waste water shall be treated in STP.
- vii. Iron ore tailings shall be dewatered in the filter press and utilized. Max storage capacity for dry sludge shall be 30 days.
- viii. 100 % of solid waste shall be utilised/ sold. No dumping of solid waste is permitted.
- ix. All plant roads shall be paved and industrial vacuum cleaners shall be used to clean the roads regularly latest by June 2021.



- x. All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
- xi. 3 Nos of CAAQMS shall be installed and location of these stations shall be finalized in consultation with SPCB.
- xii. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report.

## **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 three Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories 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 or NABL accredited laboratories.
- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. Adhere to 'Zero Liquid Discharge'.
- 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.

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

- ii. 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.

**31<sup>st</sup> March, 2021**

33.6 Proposed 1.0 MTPA Integrated Steel Plant along with 225 MW Captive Power Plant by M/s. Orissa Metaliks Private Limited by **M/s. Orissa Metaliks Private Limited** located at Mouza Amba, Mathurakismat, Radhanagar & Srirampurjia, Village Gokulpur, P.O. Shyamraipur, P.S. Kharagpur (L), **Dist. Paschim Medinipur, West Bengal** - [Online Proposal No. IA/WB/IND/62536/2017, File No. J-11011/56/2017- IA.II.(I)] — **Environment Clearance** – regarding

33.6.1 M/s. Orissa Metaliks Private Limited has made an online application vide proposal no. IA/WB/IND/62536/2017 dated 08/03/2021 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**

33.6.2 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>
15 <sup>th</sup> February, 2017	17 <sup>th</sup> meeting of EAC held on 6 <sup>th</sup> -7 <sup>th</sup> April, 2017	Terms of Reference	09/08/2017
ADS Reply vide letter dated 22.04.2017	Reconsidered in 19 <sup>th</sup> meeting of EAC held on 8 <sup>th</sup> -9 <sup>th</sup> June, 2017	Terms of Reference	

33.6.3 The project of M/s. Orissa Metaliks Private Limited located at Mouza-Amba, Mathurakismat, Radhanagar & Srirampurjia in Gokulpur Village, District Paschim Medinipur, West Bengal

State is for Proposed 1.0 MTPA Integrated Steel Plant along with 225 MW Captive Power Plant.

33.6.4 Environmental Site Settings

S. No.	Particulars	Details		
i.	Total land	121.406 ha (Private: -99.946 ha; Govt.-23.46 hectare)		
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Out of 121.406 ha, 85.3 ha of land under the possession of OMPL and consent for the remaining land has been obtained from respective land owners.		
iii.	Existence of habitation & involvement of R&R, if any.	R & R is not involved.		
iv.	Latitude and Longitude of the project site	Points	Latitude	Longitude
		A.	22°22'42.41"N	87°16'26.87"E
		B.	22°22'43.65"N	87°16'48.14"E
		C.	22°22'25.51"N	87°16'47.44"E
		D.	22°22'24.30"N	87°17'17.25"E
		E.	22°22'04.70"N	87°17'14.81"E
		F.	22°22'05.84"N	87°16'45.47"E
		G.	22°22'16.37"N	87°16'38.12"E
		H.	22°22'16.19"N	87°16'13.74"E
v.	Elevation of the project site	35 m AMSL		
vi.	Involvement of Forest land if any.	Nil		
vii.	Water body exists within the project site as well as study area	<b>Project site:</b> Nil <b>Study area:</b> River Kansabati: 4.2 km in North		
viii.	Existence of ESZ/ ESA/ national park / wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Protected Forest: 6.0 km in North Protected Forest: 8.0 km in SSE		

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

S No	Name of the Unit	Configuration	Capacity	Product
1.	Blast Furnace with PCM	2 x 450m <sup>3</sup>	0.7 Million T.P.A	Hot Metal/Pig Iron
2.	Sinter Plant	1 x 105m <sup>2</sup>	0.6 Million T.P.A	Sinter
3.	DRI	2 x 500 + 2 x 350	0.5 Million T.P.A	Sponge Iron
4.	SMS with matching LRF & oxygen optimizing furnace, CCM and Slag	20 T EIF x 10 + 20T EAF x2	0.8 Million T.P.A	Billets/Slab

S No	Name of the Unit	Configuration	Capacity	Product
	Crushing Unit			
5.	SAF (Ferro Alloy Plant) with Zigging plant	10 x 9 MVA	0.12 Million T.P.A	Ferro Alloys (FeMn, FeSi, SiMn & FeCr)
6.	Chrome Briquette Plant	1 x 40TPH	1 x 40TPH	Chrome Briquette
7.	Non-recovery type Coke Oven Plant	2 x 0.25MTPA	0.5 Million T.P.A	Metallurgical Coke
8.	Lime Dolomite Plant	1 x 200TPD	200 TPD	Lime & Dolomite
9.	Oxygen Plant	1 x 200TPD	200 TPD	Oxygen
10.	Hot Rolling Mill	1 x 0.35 MTPA	0.35 Million T.P.A	TMT Bar, Wire Rod & Wire
11.	Rolling Mill with Pickling & Galvanizing Line	1 x 0.35 MTPA	0.35 Million T.P.A	Galvanized Sheet, H.R. Plate & Nail
12.	Ductile Iron Pipe Unit	1 x 0.30 MTPA	0.30 Million T.P.A	DI Pipe, Fitting & Accessories
13.	Pellet Plant	4 X 0.9 MTPA	3.6 MTPA	Iron ore Pellet
14.	I/O Beneficiation Plant	2 x 1.8MTPA	3.6 MTPA	Concentrate Iron Ore
15.	Producer Gas Plant	20 x 7500 Nm <sup>3</sup> /hr	1,50,000 Nm <sup>3</sup> /hr	Producer Gas
16.	Captive Power Plant	WHRB Based 90 MW (56 MW from DRI Plant+ 34 MW from Coke Oven Plant+ TRT B.F.) CFBC (Coal & Dolochar Mix based)- 135 MW (3 x 45 MW)	225 MW	Power

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

Sl. No.	Name of the Raw Materials	Quantity (TPA)	Source	Distance of Source from		Up to First Unloading point (Rail/ Port)	Plant site	
				First Unloading Point (km)	Project site		Distance from first unloading point (Approx.)	(Mode of Transportation)
1	Iron Ore Fines	4,955,300	Applied for captive iron ore mines Alternate source:			Train up to Nimpura Public Siding/ RML & OMPL Siding	2.0-5.0 km	By Road NH-6 & Zilla Parishad Road (Tata Metaliks Road); Dedicated

Sl. No.	Name of the Raw Materials	Quantity (TPA)	Source	Distance of Source from		Up to First Unloading point (Rail/ Port)	Plant site	
				First Unloading Point (km)	Project site		Distance from first unloading point (Approx.)	(Mode of Transportation)
2	Iron ore Lumps	108,500	Purchased from Barbil-Joda, Orissa and Jharkhand	270-300	---			Road corridor from Railway siding to plant site
						Train up to RML & OMPL Siding	2.0-2.5 km	By Road NH-6 & Zilla Parishad Road (Tata Metaliks Road); Dedicated Road corridor from Railway siding to plant site
3	Non-coking coal	1,738,610	CCL, MCL & Imported Coal. Captive Coal mines (Jagnathpur-B, Raniganj Coal Field, West Bengal)	300-500	---	By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by train up to Nimpura Public Siding	5 km	By Road NH-6 & Zilla Parishad Road (Tata Metaliks Road)
						By vessel up-to nearest port (Haldia/ Paradeep/ Vizag) and followed by Train up to PFT RML & OMPL siding	2.0-2.5 km	By road NH-6 & Zilla Parishad Road (tata Metaliks Road); Dedicated Road corridor from Railway siding to plant site
4	Coking Coal	670,000	Imported, E-Auction	150-200	---	By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by train up to Nimpura Public Siding	5 km	By Road NH-6 & Zilla Parishad Road (Tata Metaliks Road)
						By vessel up-to nearest port (Haldia/Paradeep/ Vizag) and followed by Train up to PFT RML & OMPL siding		

Sl. No.	Name of the Raw Materials	Quantity (TPA)	Source	Distance of Source from		Up to First Unloading point (Rail/ Port)	Plant site	
				First Unloading Point (km)	Project site		Distance from first unloading point (Approx.)	(Mode of Transportation)
5	Dolomite	126,953	From Birmitrapu r, Orissa /Bilaspur, CG	270-550	---	Train up to RML & OMPL Siding	2.0-2.5km	By Road NH-6 & Zilla Parishad Road (Tata Metaliks Road); Dedicated Road corridor from Railway siding to plant site
6	Bentonite	72,000	From Gujarat, Rajasthan	1000	---	Train up to RML & OMPL Siding	2.0-2.5 km	By Road NH-6 & Zilla Parishad Road (Tata Metaliks Road); Dedicated Road corridor from Railway siding to plant site
7	Limestone	250,800	From Birmitrapur, Orissa/ Bilaspur, Raipur CG Katni MP	270-550	---	Train up to RML & OMPL Siding	2.0-2.5 km	By Road NH-6 & Zilla Parishad Road (Tata Metaliks Road); Dedicated Road corridor from Railway siding to plant site
8	Manganese ore	312,000	From Balaghat, MP & Orissa	1000	---	Train up to RML & OMPL Siding	2.0-2.5 km	By Road NH-6 & Zilla Parishad Road (Tata Metaliks Road); Dedicated Road corridor from Railway siding to plant site
9	Chromium Ore	264,000	Orissa, Jharkhand etc.	300	---	Train up to RML & OMPL Siding	2.0-2.5 km	By Road NH-6 & Zilla Parishad Road (Tata Metaliks Road); Dedicated Road corridor from Railway siding to plant site



Sl. No.	Name of the Raw Materials	Quantity (TPA)	Source	Distance of Source from		Up to First Unloading point (Rail/ Port)	Plant site	
				First Unloading Point (km)	Project site		Distance from first unloading point (Approx.)	(Mode of Transportation)
10	Quartzite	315,125	From Belpahar Orissa / Bilaspur, Raipur CG	500	---	Train up to RML & OMPL Siding	2.0-2.5 km	By Road NH-6 & Zilla Parishad Road (Tata Metaliks Road); Dedicated Road corridor from Railway siding to plant site
11	Runner Coat	1,533	Local Market	---	<150	---	---	By Road
12	Slag Coagulant	416	Local Market	---	<150	---	---	By Road
13	Inoculants	288	Local Market	---	<150	---	---	By Road
14	Zinc	567	Local Market	---	<150	---	---	By Road
15	Magnesium	510	Local Market	---	<150	---	---	By Road
16	Bitumen Solution	842 KL/year	WRAS Approved	---	<150	---	---	By Road
17	Epoxy paint	420 KL/year	WRAS Approved	---	<150	---	---	By Road

33.6.7 The water requirement for the project is estimated as 12,000m<sup>3</sup>/day, which will be obtained from the Kansabati River and rain water harvesting pond. The permission for drawl of surface water is obtained vide Memo No. 167-I/I-4M-05/14(Pt. II) dated 16.10.2020.

33.6.8 The power requirement for the project is estimated as 306 MW, out of which 225 MW will be obtained from the Captive Power Plant (135 MW Captive Power Plant based on Dolochar-Coal mix & 90 MW WHRB and Blast Furnace TRT) and remaining 81 MW from power will be obtained from WBSEDCL/ open access.

33.6.9 Baseline Environmental Studies:

Period	1st October, 2017 – 31st December, 2017.
	Revalidated Data: From November 2020 to February, 2021
AAQ parameters at 8 locations (as per revalidated data Nov'20 to Feb'21)	PM <sub>2.5</sub> =26.5 to 38.5 µg/m <sup>3</sup>
	PM <sub>10</sub> =65.2 to 86.2 µg/m <sup>3</sup>
	SO <sub>2</sub> = 4.0 to 18.2 µg/m <sup>3</sup>
	NO <sub>2</sub> = 12.8 to 36.5 µg/m <sup>3</sup>
AAQ modelling – Incremental GLCs	PM <sub>10</sub> = 2.7 µg/m <sup>3</sup> SO <sub>2</sub> = 1.66 µg/m <sup>3</sup> NO <sub>x</sub> = 0.18 µg/m <sup>3</sup>

Ground water quality at 8 locations (as per revalidated data Nov'20 to Feb'21)	pH: 6.24 to 7.14, Total Hardness: 120 to 248 mg/l, Chlorides: 16.59 to 89.4 mg/l, Fluoride: <0.1 mg/l. Heavy metals are within the limits.
Surface water quality at 8 locations(as per revalidated data Nov'20 to Feb'21)	pH: 6.83 to 7.2; DO: 4.73 to 5.8 mg/l, BOD: 4.33 to 15 mg/l, COD from 16.27 to 51.67 mg/l
Noise levels	45.1 to 73.2 dBA for the day time and 39.48 to 65.89 dBA for the Night time.
Traffic assessment study findings	<p>Overall, 13.95 MTPA (say 14 MTPA) materials will be transported either by rail or road (considering 365 working days) for the proposed project.</p> <p>Material will be transported by rail through nearest own three railway siding (2 Nos. operation &amp; 1 no. under construction), situated at a distance of 2.5 km from the project site and from Nimpura Public Railway Siding (5.0 km from the project site). Apart from that the Group is proposing to construct another private railway siding at a distance of 0.7 km from the proposed project proposed project by name of M/s Rashmi Metallurgical Industry Pvt. Ltd. Pre-feasibility study is conducted by railway approved consultant and the application is already submitted to Indian railway for obtaining approval. Raw materials will be received first by railway rakes from Railway Siding and then will be shifted to the plant site through trucks either through dedicated corridor (material conveyor belt) or through dedicated road from the Group siding to Plant. Bulk of the finished products will also be transported through this dedicated corridor to the railway siding.</p> <p>Around 85% of total raw materials and finished products shall be transported by Rail to the nearest railway siding and from there by dedicated corridor/ road (7 m wide) to the plant site and the balance 15% shall be transported by Road through Zilla Parishad Road (Tata Metaliks Road) &amp; National Highway-6.</p> <p>In the worst case, due to delay in construction of dedicated corridor/ road or due to the unavailability of rakes, 100% materials will be transported through NH-6 and Zilla Parishad Road (Tata Metaliks Road) to plant site.</p> <p>The impact assessment calculated for all the project (existing + proposed) and LOS (level of Service) value is “B” for National Highway 6 (Bombay Road) &amp; Zilla Parishad Road (Tata Metaliks Road); hence, the additional load on the carrying Capacity of the concern roads is not likely to have any change in the LOS value.</p>

Flora and fauna	No schedule- I species were recorded in the core and buffer zone of plant area during the biodiversity assessment.
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33.6.10 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

Sl. No.	Type	Quantity in Tons/Year	Utilization
1	Slag from MBF	283,500	To be used for Cement Making.
2	Dust & sludge from MBF	355,830	To be used in proposed Sinter plant
3	Dolo Char from DRI Plant	150,000	To be used in proposed CFBC Boilers.
4	Slag/ Scale from SMS (IF & EAF)	87,266	To be used for Road construction / Land levelling, Paver Block Making after recovering metal from Slag Crushing unit
5	Slag from Ferro Alloys Plant	150,000	Slag generated during Ferro Manganese production will be used as a raw material for Silico Manganese production. Slag generated during Silico Manganese production will be used for road construction / Land levelling after recovering metal from Jigging Plant. After maximum recovery of Chrome, Ferro chrome slag after doing TCPL Test will be used in green concreting.
6	Core Sand And Slag from DIP	7,286	To be used for Road construction / Land levelling purpose
7	Cement Slurry	857	To be used for Brick making and also in Captive Cement Plant
8	Bottom Ash	120,570	To be used for Road construction / Land levelling purpose
9	Dust from APC Devices	135,173	Used in Sinter Plant and also APC dust from DRI ESP will be used for Brick Manufacturing.
10	Miss Roll/ End Cuts	30,000	To be used in Proposed S.M.S Plant.
11	Fly Ash	281,340	To be used for Cement Making.
12	Tar Sludge from Producer gas plant	15,552	To be sold to WBPCB authorized vendor
13	Sludge from Galvanizing & Pickling Line	3,328	Sent to (CHWTSDF) at Haldia or Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried and briquetted and reused in Furnaces
14	Low Grade Fe & Tailing from I/O Beneficiation plant	3,17,500	Use in Sinter plant, for Brick manufacturing/ Paver block making, as sand substitute in infrastructure/ fine concrete aggregate

Sl. No.	Type	Quantity in Tons/Year	Utilization
15	Iron oxide Powder from ARP	1,750	To be sold to Tape & Paint manufacture
16	Zinc Ash/ Dross	875	To be sold to WBPCB Authorized Vendors
17	Sludge from ETP	58	Sent to (CHWTSDF) at Haldia
18	Molding Line from DIP Fitting & Accessories Unit	5	To be used for Road construction / Land levelling purpose
19	Shot Blasting from DIP Fitting & Accessories Unit	8	To be used for Road construction / Land levelling purpose
20	Fettling & Grinding from DIP Fitting & Accessories Unit	2	To be used for Road construction / Land levelling purpose

33.6.11 Public Consultation:

Details of advertisement given	Time of India– 19.11.2018 Ei Samay – 19.11.2018
Date of public consultation	21 <sup>st</sup> December, 2018 at 12.00 PM
Venue	Mahasakti Mahasangha, Satkui, P.O. Matkatpur (Near B.D.O. Office, Kharagpur-I), Dist. Paschim Medinipur in West Bengal.
Presiding Officer	Shri Soura Mondal, Additional District Magistrate (ZP), Paschim Medinipur
Cause of public agitation the public hearing was cancelled.	

Fresh Public consultant conducted as per the notification S.O. 1533 dated 14<sup>th</sup> September, 2006 of the MoEF & CC, Govt. of India. The details are:

Details of advertisement given	The Telegraph - 08.01.2020 Ajkal – 08.01.2020
Date of public consultation	10 <sup>th</sup> February, 2020 at 12.00 PM
Venue	Mahasakti Mahasangha, Satkui, P.O. Matkatpur (Near B.D.O. Office, Kharagpur-I), Dist. Paschim Medinipur in West Bengal.
Presiding Officer	Shri Uttam Adhikary, WBCS (Exe.), Additional District Magistrate (LR)
Major issues raised	<ol style="list-style-type: none"> <li>i. Existing units of same owner have not done anything about control of environmental pollution for operational units. Local villagers residing near the existing plant boundary are suffering with dust and noise pollution.</li> <li>ii. Not developed plantation. More Green Belt Development in the locality.</li> <li>iii. Solid waste dumped on lands destroying the adjacent agricultural lands.</li> </ol>

	<ul style="list-style-type: none"> <li>iv. Constructed its boundary wall adjacent to residences of village area.</li> <li>v. Utilizing ground water instead of surface water which damages ground water level in the locality.</li> <li>vi. Local villagers are suffering with dust allergy, skin disease etc. due to environmental pollution caused by existing units of same owners.</li> <li>vii. Local people also are not getting jobs in the existing factory as the units are taking outside workers. Provide job to local I.T.I. pass students and more employment opportunity for the local people.</li> <li>viii. Provide PPEs to all the workers for safety and welfare of the workers in the proposed units.</li> <li>ix. Look into the pollution matter to be generated from the proposed project.</li> <li>x. Water logging in rainy season from the proposed project.</li> <li>xi. Issue with the safety measures of the workers in the existing units</li> <li>xii. Strong opposition about the construction of additional Sponge Iron units in the area as it will create pollution.</li> <li>xiii. Uplifting contractual employees to permanent jobs within the existing units of this group.</li> <li>xiv. Giving priority to the land losers for employment.</li> <li>xv. Dust pollution generated of materials by the existing unit in uncovered conditions.</li> </ul>
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**Action plan as per MoEF&CC O.M. dated 30/09/2020**

Sl. No	Concerns raised during the Public Hearing	Physical activity and action plan
1.	<p>Existing units of same owner have not done anything about control of environmental pollution for operational units.</p> <p>Local villagers residing near the existing plant boundary are suffering with dust and noise pollution.</p>	<p>Management aim is continual improvement and continuously trying to achieve the same. The industrial units of RML, OMPL-I, OMPL, OMPL-II, BCPL &amp; RASPL are very much concerned about controlling environmental pollution. For the existing operational units' adequate number of Air Pollution Control devices such as ESPs, Bag Filters, Spark Arrestor, Hood, Scrubber, I.D Fans, Fume Extraction system, Recuperator, Evaporator, WHRB of adequate capacity are installed and all the major stacks as per CPCB norms are installed with Online Continuous Emission Monitoring System (OCEMS) and data is being transmitted 24 x 7 to CPCB / SPCB.</p> <p>Three (03) numbers of Continuous (24 x 7) Ambient Air Quality Monitoring Station (CAAQMS) are installed covering upwind, downwind and crosswind directions</p>

Sl. No	Concerns raised during the Public Hearing	Physical activity and action plan
		<p>after getting site approval from WBPCB for monitoring the Ambient Air quality.</p> <p>Adequacy assessment of all the Air Pollution Control devices by CPCCB approved Government institutes (CSIR-CIMFR, Dhanbad, Jharkhand) is being carried for all the operational units in month of August &amp; September 2020 and it is found the ECS is of adequate capacity to keep emission within the CTO/CPCB permissible limit.</p> <p>Also, to ensure emission within permissible limit, stack, fugitive, ambient, noise, water monitoring/ sampling is being carried by W.B.P.C.B &amp; NABL/ MoEF accredited lab in a time bound manner (quarterly) and report is being submitted to concerned regulatory bodies and also available on company's website.</p> <p>To control the fugitive/ ground emission more effectively following measures are being adopted by industrial units:</p> <ol style="list-style-type: none"> <li>a) Dedicated water spraying tankers (for OMPL-01 No, OMPLII- 02 Nos., OMPL-I 01 No, RML-01 No, BCPL-01 NO &amp; RASP-01 No.) are in use in each of the units.</li> <li>b) Frequency of Mechanical Street sweeping machine with vacuum cleaning has been increased (from 2 times a day to 04 times a day).</li> <li>c) Dedicated street swiping machine also in use in each of plant (for OMPLII-01 No., OMPL-I 01 No, RML-01 No &amp; RASPL-01 No.).</li> <li>d) Water sprinkler along the roadside has been installed to reduce fugitive emission.</li> <li>e) Regular painting and cleaning / whitewashing of wall.</li> <li>f) Water mist fog system (fixed and movable) has been installed in (OMPL-I, RML, RASPL) and in used in order to reduce the fugitive dust in each of plant.</li> <li>g) Dry fog system is installed to reduce fugitive emission.</li> <li>h) Concreting of internal road with proper drainage system to reduce vehicular emission.</li> <li>i) Trucks movement for transporting raw materials &amp; solid waste in fully covered way to avoid dust pollution.</li> <li>j) Green Belts as per MOEF/ CPCB guidelines are being developed to capture the pollution/ CO<sub>2</sub>.</li> </ol> <p>Now for the proposed 1 MTPA Integrated Steel Plant with 225 MW CPP same pollution control practice with modern / latest pollution control technology will be adopted to control the pollution level and qualified &amp; experienced Experts &amp; Technical persons will be engaged to mitigate the pollution level inside the plant premises.</p>

Sl. No	Concerns raised during the Public Hearing	Physical activity and action plan
2.	Not developed plantation. More Green Belt Development in the locality.	<p>Developing green belt is a continuous process. Green belt development has been made since inception of existing plant as per MOEF/ CPCB guidelines.</p> <p>To speed up the green belt development work additional dedicated manpower has been deployed Third party is engaged to maintain and developed green belt inside the plant premises.</p> <p>Apart from developing green belt in plant premises, in financial year 2019-20 approximately 8,000 nos. of saplings/plant have been distributed in school &amp; nearby villages for green belt development around the area.</p> <p>For the proposed unit 33% of total plant area (99 acres out of 300 acres) will be developed as green belt.</p>
3.	Solid waste dumped on lands destroying the adjacent agricultural lands	<p>The main solid waste generated from the existing operational units is slag from Blast Furnace, Induction Furnace, ash from Captive Power Plant, dust from ESP &amp; Bag Filters, Char Dolochar from DRI, Scrap, tarry waste from PGP, iron ore tailings from Beneficiation plant, End cuts, scrap/Mill scale from CCM and Rolling Mill etc. The various waste materials arising out of the technological processes is re-utilized to the maximum extent possible. In general solid waste management adopted are:</p> <ul style="list-style-type: none"> <li>a) 100% Blast Furnace Slag is utilized in cement plant of Bansal Cement Pvt. Ltd &amp; Rashmi Cement Ltd., Jhargram.</li> <li>b) Slag from Induction furnaces and bottom ash from CFBC based &amp; AFBC based Captive Power Plant are used for Land filling &amp; Road construction purposes and consent from WBPCB is being obtained for the same.</li> <li>c) Dust collected from ESP of Sinter Plant is reused for sinter making</li> <li>d) Dust collected from pellet plant is reused in the plant premises,</li> <li>e) Char from DRI plant is 100% used in AFBC &amp; CFBC boiler.</li> <li>f) End cuts from CCM and scrap/Mill scale from Rolling Mill are used in the Induction Furnaces, Zinc dust/dross is sold to SPCB authorized vendor,</li> <li>g) 100% Fly ash from CFBC &amp; AFBC Boilers is used for Cement making and in making fly ash bricks.</li> <li>h) Tarry waste in the form of coal tar is produced as by-product, which is sold to WBPCB authorized vendor.</li> </ul> <p>For the proposed 1.0 MTPA Integrated Steel Plant along with 225 MW Captive Power Plant, proper &amp; effective Solid Waste Management practice will be adopted</p>

Sl. No	Concerns raised during the Public Hearing	Physical activity and action plan																		
4.	Constructed its boundary wall adjacent to residences of village area.	Boundary walls are only constructed on acquired land to secure it from illegal interference.																		
5.	Utilizing ground water instead of surface water which damages ground water level in the locality.	<p>The present source of water for all operational projects is ground water, rain water harvesting and recycling of treated waste water.</p> <p>The detail of ground water withdrawal for each project after obtaining permission from State Water Irrigation Department, West Bengal are as follows:</p> <table border="1" data-bbox="738 607 1385 969"> <thead> <tr> <th data-bbox="738 607 799 667">SN</th> <th data-bbox="804 607 1082 667">Project</th> <th data-bbox="1086 607 1385 667">Ground water permission (KLD)</th> </tr> </thead> <tbody> <tr> <td data-bbox="738 667 799 712">01</td> <td data-bbox="804 667 1082 712">Rashmi Metaliks Ltd</td> <td data-bbox="1086 667 1385 712">1458</td> </tr> <tr> <td data-bbox="738 712 799 772">02</td> <td data-bbox="804 712 1082 772">Orissa Metaliks Pvt. Ltd</td> <td data-bbox="1086 712 1385 772">238</td> </tr> <tr> <td data-bbox="738 772 799 833">03</td> <td data-bbox="804 772 1082 833">Orissa Metaliks Pvt. Ltd (Unit-I)</td> <td data-bbox="1086 772 1385 833">1911</td> </tr> <tr> <td data-bbox="738 833 799 896">04</td> <td data-bbox="804 833 1082 896">Orissa Metaliks Pvt. Ltd (unit-II)</td> <td data-bbox="1086 833 1385 896">660</td> </tr> <tr> <td data-bbox="738 896 799 969">05</td> <td data-bbox="804 896 1082 969">Bansal Cement Pvt. Ltd</td> <td data-bbox="1086 896 1385 969">80</td> </tr> </tbody> </table> <p>To ensure ground water withdrawal within the approved permissible limit telemetry system will be installed by 1<sup>st</sup> week of March 2021 in all the tube well and online 24 x 7 data will be transmitted to SWID. Govt. of west Bengal.</p> <p>In order to reduce dependence on groundwater usage, Nala/ Waste water is treated and is being utilized in the industrial processes for which feasibility study completed and permission from Kharagpur Municipality has been obtained.</p> <p>Also, permission of river water from Kansabati river bed is obtained and laying of 5 km pipeline from River Kansabati to the industry is completed and water extraction from 02 no. of bore wells on Kasai River bed is already started. From remaining 02 nos. bore well water abstraction will be started by March-2022.</p> <p>To gradually phase out the ground water withdrawal a scheme for integrated water distribution networks for all the units (RML, OMPL, OMPL-I, OMPL-II, RASPL and upcoming project) with respect to surface water drawal from Kansabati river is being prepared and submitted to concerned regulatory bodies (SWID, MOEF&amp;C, New Delhi).</p> <p>Recently State Water Irrigation Department, West Bengal has conducted the inspection and submitted report to ministry vide memo no-770/GW88-Paschim Medinipur,</p>	SN	Project	Ground water permission (KLD)	01	Rashmi Metaliks Ltd	1458	02	Orissa Metaliks Pvt. Ltd	238	03	Orissa Metaliks Pvt. Ltd (Unit-I)	1911	04	Orissa Metaliks Pvt. Ltd (unit-II)	660	05	Bansal Cement Pvt. Ltd	80
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Sl. No	Concerns raised during the Public Hearing	Physical activity and action plan
		<p>dated 03.12.202 stating that ‘The shallow ground water table in the Kharagpur-I block is still not declining significantly’.</p> <p>For the proposed 1.0 MTPA Integrated Steel Plant along with 225 MW Captive Power Plant, surface water will be drawn from Kansabati River (permission already obtained).</p>
6.	<p>Local villagers are suffering with dust allergy, skin disease etc. due to environmental pollution caused by existing units of same owners.</p>	<p>Existing operational unit is equipped with adequate Environmental Control System to keep emission in prescribed standard/ limit. Also, to control the secondary emission sources dust swiper machine, movable water tankers, fog mist system, fixed water sprinklers, water guns, dry fog system are installed at potential source of emission to ensure minimal impact to the local communities.</p> <p>Periodic health check-up camp by appointing specialist doctor is carried out. Medical certificate of nearby villagers and factory staff for last 01 year 03 months (Oct’ 2019 to Jan 2021) carried by MBBS doctor, confirms that no local villagers are suffering from skin disease problem due to dust pollution.</p> <p>In future frequency of free medical Camps, health check-up camp in surrounding villages will be increased. More Charitable Dispensaries will be constructed. Equipment to the local hospitals and to the primary health centre will be provided. More qualified &amp; experienced experts &amp; technical persons will be engaged for the existing operational units to monitor and mitigate the pollution cause and adapt BAT to improve ECS.</p>
7.	<p>Local people also are not getting jobs in the existing factory as the units are taking outside workers.</p> <p>Provide job to local I.T.I. pass students and more employment opportunity for the local people.</p>	<p>For the existing operational/ under construction industrial units of the Group, priority to the local people for employment generation has been given based on their academic qualification.</p> <p>Local people from various job fairs Conducted by local administration, District Magistrate) and the students from nearby different technical institutions are recruited after getting proper training.</p> <p>For the proposed unit top most priority will be given to the local people based on their academic qualification and as per the extent of Government norms (State or GoI norms).</p>

Sl. No	Concerns raised during the Public Hearing	Physical activity and action plan
8.	Provide PPEs to all the workers for safety and welfare of the workers in the proposed units.	<p>For the proposed unit, no one will be allowed to enter in the plant area without proper PPEs. In the high temperature work zone, shifting of workers will be done frequently.</p> <p>Proper &amp; strict Safety measures shall be followed in the proposed units.</p>
9.	Look into the pollution matter to be generated from the proposed project.	<p>OMPL has confirmed that they will take all major necessary actions to control the pollution from the proposed project and will adapt BAT to keep emission within the permissible limit.</p>
10.	Water logging in rainy season from the proposed project.	<p>Plant will be designed as a Zero discharge plant. All roads inside the plant will be metal/concrete. Proper drainage along the internal roads will be created and will be connected with storm water reservoir/Guard Pond &amp; Rain Water Harvesting Pond.</p> <p>No excess water will be discharged outside the plant boundary which will create water logging problem in rainy season.</p>
11.	Issue with the safety measures of the workers in the existing units	<p>Without proper PPEs no one are allowed to work inside the plant premises. New recruiters are demonstrated with safety devices and given proper training.</p> <p>Safety awareness campaigns are being organized inside the plant premises for all industrial units with the objective of demonstrating the use of PPEs in different work zone and explaining the benefit of using PPEs.</p> <p>Safety symbol/ slogans inside plant premise at suitable location are placed to create awareness w.r.t. safety.</p> <p>Dedicated team is there to ensure, monitor and implement the HIRA to reduce the chances of accident.</p> <p>Now for the proposed 1 MTPA Integrated Steel Plant with 225 MW CPP, HIRA will be strictly followed and will be implemented in time bound manner effectively.</p>
12.	Strong opposition about the construction of additional Sponge Iron units in the area as it will create pollution.	<p>In the process of making iron &amp; steel, sponge iron (Crude Steel) is a basic raw material for steel melting shop, so it is an important unit for integrated steel plant.</p> <p>Earlier the waste heat containing lot of combustibles like coal volatiles, unused CO and other dust etc. generated from Sponge iron was discharged into the atmosphere, also the solid waste (Dolochar) was thrown on land making it polluting industry.</p> <p>But now Sponge Iron plant with best available technology/ modules are available in the market which has less impact on the environment. The waste gas is used for power generation. It is taken to an after burner</p>

Sl. No	Concerns raised during the Public Hearing	Physical activity and action plan
		<p>chamber (ABC) and the combustibles are burnt and cooled to desired temperature in a waste heat recovery boiler and taken to ESP for final dust separation, before going to stack via ID Fans resulting minimal pollution like other steel making units. Also the solid waste (Dolochar) generated from Sponge iron plant is used in FBC based power plant for power generation.</p> <p>In the proposed 1 Million TPA Integrated Steel Plant with 225 MW CPP, adequate capacity ESP with WHRB and bag filter will be installed in Sponge iron plant. 56 MW power will be generated from Waste heat of Sponge iron plant and Dolochar will be used in proposed 3 x 45 MW CFBC boilers for power generation resulting minimal pollution like other steel making units and conceptually all the waste of Sponge iron plant are by product of other units of proposed ISP.</p>
13.	Uplifting contractual employees to permanent jobs within the existing units of this group.	<p>Sincere efforts would be made by the management of industrial units as per company policy to address the issue.</p> <p>However, at present all land looser is given permanent job within the existing units of the group and maximum are on company payroll.</p>
14.	Giving priority to the land losers for employment	<p>For existing operational industrial units, in past company has given priority to the local people for employment generation based on their academic qualification. Local people from various job fairs (Conducted by local administration, District Magistrate) and the students from nearby different technical institutions are recruited after getting proper training.</p> <p>For the proposed unit top most priority will be given to the local people based on their academic qualification and as per the extent of Government norms (State or GoI norms).</p>
15.	Dust pollution generated of materials by the existing unit in uncovered conditions.	<p>Generally, all trucks moving for transporting raw materials &amp; solid waste is fully covered to avoid dust pollution.</p> <p>Traffic management system being adapted and will be strictly followed in future by all the industrial units of the Group are as:</p> <ul style="list-style-type: none"> <li>• Properly regulating the traffic,</li> <li>• Following strict and disciplined vehicular movement,</li> <li>• Controlling Speed limit by fixing more bumpers/ barricades to regulate vehicle speed.</li> <li>• Transportation of material by vehicle &amp; rail in fully covered manner is made mandatory.</li> </ul>

Sl. No	Concerns raised during the Public Hearing	Physical activity and action plan
		<ul style="list-style-type: none"> <li>Designated parking area for inbound/ outbound Truck/tippers.</li> <li>Minimize use of roads at any particular time by planning vehicles movements</li> <li>Overloading of the trucks strictly prohibited to ensure no dust emission during transportation of materials.</li> <li>Introducing penalty system for violation of traffic rules.</li> <li>Also, to ensure vehicle emission within limit, PUC certified vehicle are allowed inside the plant premises.</li> </ul> <p>For the operational plant at loading and unloading points, arrangement for more water sprinkling/ dry fog system is made, water sprinkler is installed along the road side to reduce dust emission during movement of vehicles. Also, frequency of movable water tanker is increased to 04 trips per day per tanker to suppress dust pollution.</p> <p>For the proposed unit strict traffic management will be followed. Dedicated road corridor for smooth movement of the goods vehicles from the Group PFT railway siding to proposed plant will be constructed.</p>

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

Sl. No.	PROPOSED CER ACTIVITIES	IMPLEMENTATION OF CER ON THE BASIS OF PHYSICAL TARGETS					Total Cost (In Lacs)
		Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	
<b>PUBLIC HEARING RELATED ACTIVITIES</b>							
1	Drinking Water Infrastructure (Tube well in nearby villages – 42 nos. @ Rs. 0.70 Lakhs); ATM Water Machine 30 nos. @ Rs 0.50 Lakhs)	Tube Well-10 Nos.	Tube Well-10 Nos.	Tube Well-10 Nos.	Tube Well-10 Nos.	Tube Well-10 Nos.	50
		ATM Water Machine-05 Nos.	ATM Water Machine-06 Nos.	ATM Water Machine-07 Nos.	ATM Water Machine-06 Nos.	ATM Water Machine-06 Nos.	
2	Development & construction of new Pond in nearby village	Restoration of Existing pond (m <sup>3</sup> )-2,500	Restoration of Existing pond (m <sup>3</sup> )-2,400	Restoration of Existing pond (m <sup>3</sup> )-2,650	Restoration of Existing pond (m <sup>3</sup> )-2,700	Restoration of Existing pond (m <sup>3</sup> )-2,400	175
		Cons. Of new pond (Ha)-0.05	Cons. Of new pond(Ha)-0.06	Cons. Of new pond(Ha)-0.05	Cons. Of new pond(Ha)-0.07	Cons. Of new pond(Ha)-0.06	
3	Development & repairing of road in nearby	Development of Road (km)-0.8	Development of Road (km)-0.7	Development of Road (km)-0.8	Development of Road (km)-0.9	Development of Road (km)-0.8	210

Sl. No.	PROPOSED CER ACTIVITIES	IMPLEMENTATION OF CER ON THE BASIS OF PHYSICAL TARGETS					Total Cost (In Lacs)
		Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	
		Cons. Of new road (km)-0.5	Cons. Of new road (km)-0.4	Cons. Of new road (km)-0.5	Cons. Of new road (km)-0.4	Cons. Of new road (km)-0.5	
4	Ambulance to nearby panchayats-03 Nos.	--	01 No. (Kalaikunda Panchayat)	--	01 No. (Sadarpur Police Phari)	01 No. (Kharagpur Local Police Phari)	45
5	Providing equipment to the local hospitals, Developing/ up gradation of primary health center (Refrigerator, Autoclave, diagnostic set etc)	Development of primary health centre (Katapol)-11 Lacs	Development of primary health centre (Mathurakismat)-15 Lacs	--	Development of primary health centre (Gokulpur)-10 Lacs	--	81
		Providing med. equipment to the local hospital/health centre (Kalaikunda)-6 Lacs	Providing med. equipment to the local hospital/health centre (Barkola)-6 Lacs	Providing med. equipment to the local hospital/health centre (Katapol)-10 Lacs	Providing med. equipment to the local hospital/health centre (Amba)-8 Lacs	Providing med. equipment to the local hospital/health centre (Gokulpur)-15 Lacs	
6	Construction of charitable Dispensary with specialist doctor	Srirampurjia-01 (cost for 1 doctor, 2 nurses, Support staffs, medicine)	Narayanpur-01 (cost for 1 doctor, 2 nurses, Support staffs, medicine)	Risa-01 (cost for 1 doctor, 2 nurses, Support staffs, medicine)	Khosalchak-01 (cost for 1 doctor, 2 nurses, Support staffs, medicine)	Najirchak-01 (cost for 1 doctor, 2 nurses, Support staffs, medicine)	75
7	Skill development to unemployed local youth through National Skill Development Corporation, Govt. of India Scheme.	Contribution to DM, Paschim Medinipur (Skill development fund-Rs. 25 Lacs)	Contribution to SDO, Kharagpur (Skill development fund-Rs. 25 Lacs)	Contribution to Kharagpur ITI, Kharagpur (Skill development fund-Rs. 25 Lacs)	Contribution to Doulatpur ITI, Kharagpur (Skill development fund-Rs. 25 Lacs)	Contribution to DM, Paschim Medinipur (Skill development fund-Rs. 25 Lacs)	125
8	Workshop centre with latest tailoring machines for training women (like tailoring, stitching, Pickle & Sauces making, Soft Toys & Gem Jeweller, and Beautician Courses and for making affordable price of Sanitary	Mathurakismat	Shyamraipur	Risha	Kalaikunda	Malancha	90

Sl. No.	PROPOSED CER ACTIVITIES	IMPLEMENTATION OF CER ON THE BASIS OF PHYSICAL TARGETS					Total Cost (In Lacs)
		Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	
	Pads.)						
9	Vocational Training Center for Educated youth of villages	Providing training to local village youths for six months period (41 persons)	Providing training to local village youths for six months period (41 persons)	Providing training to local village youths for six months period (33 persons)	Providing training to local village youths for six months period (33 persons)	Providing training to local village youths for six months period (17 persons)	100
10	Development of parks, plantation of trees in the nearby areas.	Renovation of park at Shrirampur	Beautification of circular park at Chowringhee	Development of park at Kalaikunda Panchayat area	Plantation at Nimpura Railway yard	Beautification of Krish Garden	125
NEED BASED ACTIVITIES							
11	Open Defecation free village by introducing community & Individual Toilets	Construction of Toilets at Kalaikunda-10 Nos.	Construction of Toilets at Risha-11 Nos.	Construction of Toilets at Alichak-12 Nos.	Construction of Toilets at Narayanpur-13 Nos.	Construction of Toilets at Radhanagar-10 Nos.	56
12	Development of Community Hall	Risha	Narayanpur	Radhanagar	Kalaikunda	Amba	50
13	Financial Support to the Local School for extension of building / class room/ toilets/ development of school infrastructure & library facilities	Gokulpur High School, Amba	Kalaikunda Primary School	Malancha School	Atulmoni School	Risha High School	75
14	Supporting schools/ club for establishment of mini outdoor sports complex or playgrounds in providing the facilities like badminton court, tennis court and levelling of ground.	Kalaikunda Primary School	Risha High School	Jagai Sporting Club	Gokulpur High School, Amba	Maheshpur Amra Kojon Club	56

Sl. No.	PROPOSED CER ACTIVITIES	IMPLEMENTATION OF CER ON THE BASIS OF PHYSICAL TARGETS					Total Cost (In Lacs)
		Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	
15	Transportation facility for school students	--	01 no. Mini Bus to Gokulpur Village (for Students)	--	01 no. Mini Bus to Shyamraipur Village (for Students)	--	30
16	Street Lighting (Solar/Led) provision at suitable public places	Risha, 22 Nos.	Radhanagar, 18 Nos.	Kalaikunda, 15 Nos.	Amba, 20 Nos.	Katapal, 25 Nos.	50
17	Creation of irrigation infrastructure in the peripheral villages (Supply of Crop harvesting machine, Pest Control Machine), organise training programmes for the local farmers to learn the modern techniques of the agricultural practices and Drainage Development - side drains & Construction of Culvert on drainage.	Narayanpur	Risha	Radhanagar	Kalaikunda	Amba	60
18.	Infrastructure facilities development for Welfare of the local villager	---	Providing Electricity infrastructural facility (at Tentulia)	Providing Electricity infrastructural facility (at Burra)	Providing Electricity infrastructural facility (at Mahasaypur)	Providing Electricity infrastructural facility (at Kunjachak)	50
19.	Provide Dustbin in Village (under Swachh Bharat Scheme)	Radhanagar	Kalaikunda	Mathurakismat	Amba	Gokulpur	25

33.6.12 The capital cost of the project is Rs. 1500 Crores and the capital cost for environmental protection measures is proposed as Rs. 105.5 Crores. The annual recurring cost towards the

environmental protection measures is proposed as Rs. 9 Crores. The employment generation from the proposed project is 7000 (4500 direct and 2500 indirect). The details of cost for environmental protection measures are as follows:

S. No.	Description of Item	Existing (Rs. in Crores)	
		Capital Cost	Recurring Cost
1	Cost of Air Pollution Control Devices/ System	40.0	4.00
2	Cost of Water conservation & Pollution Control	6.5	0.55
3	Cost of Solid Waste Management System	8.0	0.35
4	Green belt development	18.0	0.55
5	Noise Reduction Systems	3.0	0.50
6	Occupational Health Management	3.0	0.45
7	Risk Mitigation & Safety Plan	4.0	0.30
8	Online Monitoring Surveillance System	4.0	1.50
9	Implementation of Controlling measures to minimize impacts due to transportation and traffic	2.5	0.50
10	Setting Environmental Laboratory with necessary setup and manpower	1.0	0.30
11	Action plan to address the PH issues	15.5	
<b>Total</b>		<b>105.5</b>	<b>9.0</b>

33.6.13 Greenbelt will be developed in 40.1 ha (99 acres) which is about 33% of the total project area of 121.5 ha (300 acres). Around 1,00,250 number of trees (@2500 Nos. of tree per hectares) has been considered under plantation program in greenbelt development. The greenbelt will be developed in 3 years span of time.

33.6.14 Show Cause Notice (SCN) was issued to Orissa Metaliks Private Limited vide letter no. J-11011/604/2010-IA.II dated 21/09/2020, Reply to SCN made and submitted to MoEF&CC, New Delhi vide even letter dated 29.10.2020. Subsequently based on submission personal hearing was conducted on 11.12.2020 chaired by Joint Secretary MoEF&CC, New Delhi and it was decided that PP may take requisite corrective action against the each of the non-compliances reported by the different statutory authorities and submit the action taken report (ATR) to the ministry, with a copy to MoEF&CC Regional office, within a time frame of one month from 11.12.2020. Action taken report submitted to ministry on 14.01.2021. Integrated Regional Office of MOEFCC, Kolkata visited the site for verification of compliance status against the SCN and submitted site verification to MoEF&CC, New Delhi vide report dated 05.02.2021. Based on the company wise response by the Group to the SCN dated 21/09/2020, ATR dated 14/01/2021 and IRO report dated 05/02/2021, Ministry vide letter dated 19/03/2021 withdrawn the Show Cause Notice issued to M/s Rashmi Group.

33.6.15 The proponent has mentioned that there is no court case or violation under EIA Notification to the project or related activity.

33.6.16 EIA consultant - M/s. M.N. Dastur & Co (P) Ltd [NABET Certificate No. NABET/EIA/1821/RA0131 valid till 17.05.2021].



33.6.17 **M/s Orissa Metaliks Private Limited** has earlier made online application vide proposal no. IA/WB/IND/62536/2017 dated 19/08/2020 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 proposal was considered by the EAC in its meeting held on 28-30<sup>th</sup> September, 2020. The observations and recommendations are furnished as below:

**Observations of the Committee held during 28-30<sup>th</sup> September, 2020**

33.6.18 The Committee noted the following:

- i. Cumulative Environment Impact Assessment for all the existing units as well as for the upcoming units of the other companies operating in the vicinity of the project site for all the environmental components have not been carried out.
- ii. Response to the following issues raised during the public consultation is seriously lacking and failed to adequately address in the EIA report.
  - (a) Existing units of same owner have not done anything about control of environmental pollution for operational units.
  - (b) Local villagers residing near the existing plant boundary are suffering with dust and noise pollution.
  - (c) The green belt development is not satisfactory. More Green Belt Development is required.
  - (d) Solid waste dumped on lands destroying the adjacent agricultural lands.
  - (e) Constructed its boundary wall adjacent to residences of village area.
  - (f) Utilizing ground water instead of surface water which damages ground water level in the locality.
  - (g) Local villagers are suffering with dust allergy, skin disease etc. due to environmental pollution caused by existing units of same owners.
  - (h) Local people also are not getting jobs in the existing factory as the units are taking outside workers.
  - (i) Water logging in rainy season from the proposed project.
  - (j) Strong opposition about the construction of additional Sponge Iron units in the area as it will create pollution.
  - (k) Giving priority to the land losers for employment
  - (l) Dust pollution generated due to transportation of materials by the existing unit in uncovered conditions.
- iii. Details of pollution control equipment with airflow, design and operating capacity and design capacity all the pollution control devices have not been provided. Further, adequacy report from 3<sup>rd</sup> party experts/institutions shall be submitted.
- iv. Materials balance diagram and energy balance diagram needs to be revisited and submitted.
- v. Energy conservation measures to be adopted in the instant proposal has not been enumerated in the EIA report.
- vi. Action plan for no ground water abstraction for the proposed project has not been submitted.
- vii. Fresh baseline data collection shall be conducted for one full season in 10 km zone, due to the following:

- (a) Data collection has been limited to the core zone of the project site i.e. 5 km radius of the project site instead of study area of the project site i.e., covering 10 km radius of the project site.
- (b) The data collected for the parameters such as poly aromatic hydrocarbons, lead, arsenic, chromium and benzo amino pyrene for the different locations are appears to be unrealistic as same values are reported for all the locations.
- viii. Cumulative AAQ modeling for the worst case scenario has not been carried out.
- ix. Hazard Identification and Risk Assessment is not project specific.
- x. PP shall submit the EMP Matrix indicating; EMP details, Time line for implementation; Budgetary Provisions and Monitoring Schedule and monitoring methodology.
- xi. Existing road conditions to be used for transportation of raw materials and finished products inter-alia including its dimensions along with photographs. Mitigation measures such as strengthening of existing road etc., if any, envisaged for transportation of raw materials and products by road.
- xii. Line source modelling based on the quantity of raw materials and products to be transported different modes such as road and rail respectively shall be carried out and submitted.
- xiii. In addition to the above, the Committee also taken cognizance of fact that MoEF&CC has issued a Show Cause Notice to M/s. Orissa Metaliks Private Limited on 21/09/2020. The Committee also taken note that M/s. Orissa Metaliks Private Limited is part of Rashmi Group and M/s. OMPL tried to mislead the members as well as the Ministry.

#### **Recommendations of the Committee held during 28-30<sup>th</sup> September, 2020**

33.6.19 In view of the foregoing and after deliberations, the Committee recommended the following:

- i. Proposal shall be returned in present form to the project proponent.
- ii. MoEF&CC may issue show cause notice to M/s. Envirotech East Private Limited, Kolkata for blacklisting from participation in any EIA process in respect of Metallurgical Industries as they have as they have failed to carry out EIA study as per the QCI/NABET norms and unrealistic baseline values have been reported without any scientific basis.

33.6.20 M/s. Orissa Metaliks Private Limited has made a revised application vide proposal no. IA/WB/IND/62536/2017 dated 08/03/2021 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 proposal was considered by the EAC (Industry 1) in its 33<sup>rd</sup> meeting held on 30<sup>th</sup>-31<sup>st</sup> March, 2021. The observations and recommendations of EAC is given as below:

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

33.6.21 The EAC noted the following:

- i. The EAC found that the revalidated 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 cumulative impact assessment 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. Based on the company wise response by the Group to the SCN dated 21/09/2020, ATR dated 14/01/2021 and IRO report dated 05/02/2021, Ministry vide letter dated 19/03/2021 withdrawn the Show Cause Notice issued to M/s Rashmi Group.

### **Recommendations of the Committee**

33.6.22 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 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:

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

- i. PM emissions from the stacks shall be less than 30 mg/Nm<sup>3</sup>.
- ii. Steel Plant shall have following specific facilities for cleaner production;
  - a. Modified wet quenching facility complete with sampling facility shall be provided.
  - b. BF shall have TRT.
  - c. EAF and SAF shall be closed type and fourth hole extraction system shall be included for fume control from these furnaces.
  - d. Zigging and Briquetting plant shall be provided.
  - e. Producer Gas Plant shall be closed type and Phenolic water from PGP shall be treated for phenol, tar and cyanide.
  - f. Water requirement for the plant shall be met from surface water and ground water abstraction shall not be permitted.
  - g. Acid recovery plant shall be provided in CRM.
  - h. Solid waste generated from DI plant shall be reused/recycled/sold along with other solid waste from the steel plant.
  - i. Iron ore tailings shall be dewatered using filter press and dry disposal of the tailings shall be practiced.
  - j. Incinerator shall be included for disposal of oily scum and oil sludge from CRM.
  - k. Performance Evaluation tests for all Pollution Control Devices shall be carried out on yearly basis and reported to RO.
  - l. Rain water harvesting in 100 % area of the plant shall be carried out.
  - m. 220 KLD Sewage Treatment Plant shall be installed to treat domestic sewage water.
- iii. Following energy conservation measures shall be installed;
  - a. Power Generation with TRT in blast Furnace.
  - b. Steam generation from WHRB evaporator attached with Sinter Cooler.
  - c. Evaporator will be installed in annealing furnace of DI Pipe plant to generate steam from waste heat.

- d. Recuperator will be installed to recover heat from BF stove waste gas and used for stove gas reheating reducing requirement of fuel gas.
- e. 100% consumption of Dolo char in CFBC based boiler.
- f. Power Generation with WHRB in coke oven plant.
- g. 85-90 % Direct hot charging of billet from SMS in rolling mill.
- h. Energy Recovery from oily scum and metallic sludge by briquetting and reuse.
- iv. All natural drainages in the plant area shall be protected.
- v. No ground water shall be withdrawn.
- vi. 3 Nos of CAAQMS shall be installed and location of these stations shall be finalized in consultation with WBPCB.
- vii. 85 % of raw materials and finished goods shall be transported by dedicated railway siding facility. In the event of delay in establishment of dedicated railway line, PP shall use another railway siding facility of Rashmi Group.
- viii. All plant roads shall be paved and industrial vacuum cleaners shall be used to clean the roads regularly.
- ix. The raw material shall be stored in covered sheds. All stockyards shall have 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.
- x. Rain water harvesting shall be practiced extensively.
- xi. 40.1 ha land shall be brought under green belt @ 2500 tree per ha in 3 years.
- xii. Ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system shall be used.
- xiii. Energy efficient drives, VFD for auxiliary motors, slip power recovery for motors above 1000 KW shall be provided.
- xiv. Ventilation system for odour control in bitumen coating area shall be included.
- xv. Zn dust monitoring in AAQ in DI plant shall be carried out.
- xvi. ETP shall be provided for DI plant exclusively.

## **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. 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. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
- v. Tyre washing facilities shall be provided at the entrance of the plant gates.
- vi. Water meters shall be provided at the inlet to all unit processes in the steel plants.

#### **IV. Noise monitoring and prevention**

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

#### **V. Energy Conservation measures**

- i. 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 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.

33.7 Proposed MS Billets/Alloys Billets – 5,50,000 TPA TMT Bars/MS Structural Steel/Gutter/Angles/Channels/Pipes – 5,50,000 TPA Ferro alloys unit with 1 x 5 MVA Submerged Electric Arc Furnace – Ferro Manganese – 12,800 TPA or Silico Manganese – 9,500 TPA by **M/s. Shree Om Rolling Mills Private Limited** located at Gat no. 56 and 57 , village Daregaon, Adjacent to MIDC Phase II, Taluka - Jalna, **District – Jalna, Maharashtra** [Proposal No. IA/MH/IND/108058/2019, MoEF&CC File No. IA-J-11011/207/2019-IA-II(I)] – **Environment Clearance** – regarding.

33.7.1 M/s Shree Om Rolling Mills Private Limited (SRMPL) has made an online application vide proposal no. IA/MH/IND/108058/2019 dated 16/03/2021 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) Under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

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

33.7.2 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>
14/06/2019	8 <sup>th</sup> meeting of EAC held on 26/06/2019.	Terms of Reference	06/08/2019

33.7.3 The project of M/s Shree Om Rolling Mills Private Limited at located at Gat no. 56 and 57, village Daregaon, Adjacent to MIDC Phase II, Taluka - Jalna, District – Jalna, Maharashtra State is for Proposed MS Billets/Alloys Billets – 5,50,000 TPA TMT Bars/MS Structural Steel/Gutter/Angles/Channels/Pipes – 5,50,000 TPA Ferro alloys unit with 1 x 5 MVA Submerged Electric Arc Furnace – Ferro Manganese – 12,800 TPA or Silico Manganese – 9,500 TPA.

33.7.4 Environmental Site Settings

S. No.	Particulars	Details		
i.	Total land	11.97 ha (Private land)		
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Total land under the possession of M/s Shree Om Rolling Mills Private Limited		
iii.	Existence of habitation & involvement of R&R, if any.	R & R is not involved.		
iv.	Latitude and Longitude of the project site	Points	Latitude	Longitude
		A.	19°50'20.91"N	75°50'47.55"E
		B.	19°50'19.12"N	75°50'32.22"E
		C.	19°50'15.08"N	75°50'32.09"E
D.	19°50'15.76"N	75°50'47.27"E		
v.	Elevation of the project site	528 m 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> Nil</p> <p><b>Study area:</b> Moti Talav: 1.5 km in ESE Village Pond: 2.15 km in SW Village Pond: 4.0 km in South</p>		
viii.	Existence of ESZ/ ESA/ national park / wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	<p>Nil.</p> <p>Reserve Forest at 5.5 km in NE</p>		

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

S No	Name	Configuration	Production TPA
1.	IMS Billets/ Alloys Billets	3 x 40 TPH	5,50,000
2.	TMT Bars/ MS Structural	Steel/ Gutter/ Angles/ Channels/ Pipes	5,50,000
3.	Ferro Alloys	Ferro Manganese or Silica Manganese	12,800 9,500

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

S No	Raw Material	Quantity in TPA	Source	Distance from site (km)	Mode of transportation
1.	Billets Manufacturing		Open Market	100 km	By road
	Scrap,	323400			

S No	Raw Material	Quantity in TPA	Source	Distance from site (km)	Mode of transportation
	Sponge iron,	323400			
	other Minerals	17325			
2.	TMT Bars/MS Structural Steel/ Gutter/ Angles/ Channels/ Pipes	Billets 5,50,000	In house	0	NA
3.	Ferro Manganese	Mn Ore 2.1-2.4	Open Market	6	By road
		Coke 0.30	Open Market	6	By road
		Coal 0.3	Open Market	6	By road
4.	Silico Manganese	Mn Ore 2.5-2.8	Open Market	NA	By road
		Coke & Coal 0.8	Open Market	NA	By road
		Dolomite 0.2	Open Market	2	By road

33.7.7 The water requirement for the project is estimated as 250 KLD, out of which 250 m<sup>3</sup>/day of fresh water requirement will be obtained from the Own Water Reservoir.

33.7.8 The power requirement for the project is estimated as 25 MW, out of which 25MW will be obtained from Maharashtra State Electricity Board.

33.7.9 Baseline Environmental Studies:

Period	October 2019 to December 2019
AAQ parameters at 8 locations	PM <sub>2.5</sub> = 16.5 to 34.6 µg/m <sup>3</sup> PM <sub>10</sub> = 41.5 to 82.6 µg/m <sup>3</sup> SO <sub>2</sub> = 10.2 to 18.4 µg/m <sup>3</sup> NO <sub>x</sub> = 12.3 to 21.8 µg/m <sup>3</sup>
AAQ modelling (Background plus incremental GLC)	PM <sub>10</sub> = 82.6 to 83.9 µg/m <sup>3</sup> NO <sub>x</sub> = 21.8 to 26.16 µg/m <sup>3</sup>
Ground water quality at 8 locations	pH: 7.31 to 7.83, Total Hardness: 303 to 803 mg/l, Chlorides: 40.27 to 523.5 mg/l, Fluoride: 0.5 to 0.85 mg/l. Heavy metals are within the limits.
Surface water quality at 3 locations	pH: 7.32 to 8.07; DO: 5.4 to 5.7 mg/l and BOD: 3 to 4 mg/l. COD from 8 to 12 mg/l.
Noise levels at 8 locations	48.4 to 68.4 dBA for the day time and 42.2 to 63.0 dBA for the Night time.
Traffic assessment study findings	About 489 PUC will be added in existing traffic.
Flora and fauna	No Schedule-I species is found.

33.7.10 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 (TPA)	Mode of treatment/disposal
1.	Slag	Induction Furnace	17325	Brick Manufacturing
2.	Slag	Submerged Electric Arc Furnace	8250	Brick Manufacturing
3.	Waste Oil	Industrial Waste	3 KL	Authorized Vendor

33.7.11 Public Consultation:

Details of advertisement given	31/07/2020
Date of public consultation	06/08/2020
Venue	M/s Om Rolling Mills Private Limited, Gut No 56, 57, Village Daregaon, Additional MIDC, Phase II, Tehsil & District Jalna.
Presiding Officer	District Collector, Jalna District
Major issues raised	i. Health Problem ii. Effluent, solid waste and management. iii. Run off rain water iv. Pollution control v. Area Development vi. Employment Regarding vii. Solid waste generation

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

S No.	Concerns raised during the Public Hearing	Physical activity and action plan	Tentative Budget Rs	Target date for implementation of action plan
1.	Community health	Social medical camps will be set up for checkups but not for health insurance	10 Lacs	Annually
2.	Effluent generated from the project	The waste water generated from domestic use will be treated in STP and treated effluent will be used for garden on own land.	0.75 Cr	Before COD of the plant
3.	Social & educational activities	Implemented	10 Lacs	Annually
4.	Plantation	Plantation will be done	20 Lacs	Within one year
5.	Solid waste generated	Solid waste generated	1.5 Cr	

S No.	Concerns raised during the Public Hearing	Physical activity and action plan	Tentative Budget Rs	Target date for implementation of action plan
	from the project	will be crushed. Then bricks will be used in construction work		

33.7.12 The cost of the project is Rs. 200 crores. The capital cost for environmental protection measures is proposed as Rs. 15.65 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 0.85. The employment generation from the proposed project is 200 Nos. The details of cost for environmental protection measures are as follows:

S. No	Item	Capital Cost (Crores)	Recurring Cost per annum (Lac)
1.	Air Pollution Control	10.0	20
2.	Water Pollution Control	0.75	15
3.	Noise Pollution Control	1.0	5
4.	Environment Monitoring and Management	0.5	15
5.	Occupational Health	0.5	10
6.	Greenbelt	0.5	5
7.	Solid Waste Management	1.5	5
8.	Safety Management	0.50	5
9.	Laboratory and Chemicals	0	5
10.	Commitment during public hearing	0.4	0
	<b>Total</b>	<b>15.65</b>	<b>85.0</b>

33.7.13 Greenbelt will be developed in 3.99 ha which is about 33.3% of the total project area. A 3m wide green belt, 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 5985 saplings will be planted and nurtured in 3.99 hectares in three years.

33.7.14 Name of the EIA consultant: Ampl Environ Pvt. Ltd. [S.No. 124 List of ACOs with their Certificate / Extension Letter no. Rev. 08, Mar. 15, 2021].

33.7.15 The proposal was considered by the EAC (Industry 1) in its 33<sup>rd</sup> meeting held on 30<sup>th</sup>-31<sup>st</sup> March, 2021. The observations and recommendations of EAC is given as below:

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

33.7.16 The Committee noted the following:

- i. No vacuum cleaner has been envisaged for road cleaning. Water spraying only has been suggested.
- ii. TOR point # 9 pertaining to corporate environment policy has not been addressed.

- iii. Criteria for selection of Soil sampling stations and Noise monitoring stations has not been furnished in EIA report.
- iv. Traffic survey analysis has not been presented.
- v. Project benefits have not been quantified.
- vi. Chapter 11 is only two pages and not in line with the requirement of EIA notification 2006 Appendix III.
- vii. Action plan to address the issues raised during public hearing has not been prepared as per MoEF&CC O.M. dated 30/09/2020.

### **Recommendations of the Committee**

33.7.17 In view of the foregoing and after deliberations, the Committee deferred the consideration of the instant proposal and sought following additional information for further consideration of the proposal.

- i. Action plan for green belt development in 3.99 ha shall be with a tree density of 2500 per hectare shall be submitted.
- ii. Land for water reservoir of 6070 Sq M has shall be included in the total plant area.
- iii. TOR point # 9 pertaining to corporate environment policy shall be addressed.
- iv. Criteria for selection of Soil sampling stations and Noise monitoring stations shall be furnished in EIA report.
- v. Traffic survey analysis shall be furnished.
- vi. Summary and conclusion of EIA report needs to be revised.
- vii. Action plan to achieve PM level in stacks less than 30 mg/Nm<sup>3</sup> shall be submitted.
- viii. Action plan for slag utilization shall be submitted.
- ix. Action plan to address the issues raised public hearing as per MoEF&CC O.M. dated 30/09/2020 shall be submitted.

33.8 **Expansion of Alumina Refinery (1 MTPA to 4 MTPA) and Captive Power Plant (75 MW to 285 MW) by M/s. Vedanta Limited, located at Lanjigarh District Kalahandi Odisha [Online Proposal No. IA/OR/IND/203399/2021, File No. J- 11011/406/2011-IA.II (I)] – Amendment in Environment Clearance regarding specific condition no. v pertaining to land acquisition for phase III Alumina Refinery – regarding.**

33.8.1 M/s Vedanta Limited has made an online application vide proposal no. IA/OR/IND/203399/2021 dated 13/03/2021 along with Form 4 and sought for Amendment / Clarification in Environmental Clearance granted to accord by the Ministry vide letter no. J-11011/53/2014-IA II (I), dated 20/11/2015.

### **Details submitted by the project proponent**

33.8.2 M/s. Vedanta Limited vide their application dated 19/08/2014 has applied to MoEF&CC for grant of EC for expansion of (1MTPA to 6 MTPA – Phase I: 1 to 2 MTPA; Phase II: 2 to 4 MTPA and Phase III: 4 to 6 MTPA) Alumina Refinery and Captive Power Plant (from 75MW to 285MW) at Dist. Kalahandi, Odisha. As per the proposal submitted to MoEF&CC, the total project area is 1552.7 ha. Out of this total area, 833.17 + 53.5 ha is under advanced stage of

acquisition and the balance 666.03 ha was yet to be acquired. Since the total land required for the project activity was not under the possession of proponent, the EC was accorded for the expansion of Alumina Refinery (1 MTPA to 4 MTPA) and Captive Power Plant (75 MW to 285 MW) on 20/11/2015. As per para no. 26 of the EC dated 20/11/2015, the project need not go through a fresh appraisal process again for the Phase -III expansion from 4 to 6 MTPA and stipulated a following specific condition:

“v. For Phase-III (6 MTPA), the proponent shall obtain an amendment of EC after completion of land acquisition of the balance area of 666.03ha”.

33.8.3 The instant amendment proposal is for seeking amendment in the aforementioned specific condition (v) of the EC dated 20/11/2015 as well change in configuration of Alumina refinery due to the following:

- i. As per the assessment done by Industrial Promotion & Investment Corporation of Odisha (IPICOL), the nodal agency of Government of Odisha through Engineers India Limited (EIL) have assessed that the total additional land required for expansion to 6 MTPA is of only 666 acres i.e. 269.52 hectare as against 666 ha prescribed in the EC dated 20/11/2015.
- ii. As per the letter dated 12/03/2021 of IDCO, with respect to 666 acres of land, IDCO has processed 218 acres of land which is under advanced stage of acquisition and for the remaining land 456 acres (Govt land – 147.26 acres: IDCO is processing the lease proposal and Private land – 308.68 acres: IDCO is processing the acquisition proposal) for the phase III of the Alumina refinery.
- iii. Following is the Configuration & capacity change granted in EC vis-a-vis with the proposed changes in configuration & capacity of units:

S No	EC condition	Capacity as per EC letter dated 20/11/2015	Amendment	Remarks
1	Specific Condition no v of the Environmental clearance F. No. J-11011/406/2011-IA II(1) dated 20/11/2015 <i>“For Phase-III (6 MTPA), the proponent shall obtain an amendment of EC after completion of land acquisition of the balance area of 666.03 ha detail</i>	For phase-III (6MTPA), the proponent shall acquire 666 ha.	For phase-III (6MTPA), the proponent shall acquire 666 acres.	Instead of going from 2 to 4 MTPA in Phase-II, company want to proposes for 2MTPA to 5.0 MTPA, which can be achieved with small modifications and production can be achieved in short time.

S No	EC condition	Capacity as per EC letter dated 20/11/2015	Amendment	Remarks
	<i>of which will be furnished to MoEF&amp;CC.”</i>			
2	Specific Condition no (xxiii) of the EC dated 20/11/2015	Of the total area of 1552.65 ha. an area of 512.37 ha (33%) shall be developed into green belt. Of this, a total of 215.20 ha of green belt have been developed and the balance area of 297.17 ha shall also be brought under plantation, which includes plantation in a width of 15-20m along the remaining boundary wall of 3km of the 8km.	In view of proportionate reduction in Green belt land requirement by IPICOL, the condition will be read as under:  “Of the total area of 1102.52 ha. an area of 363.83 ha (33%) shall be developed into green belt. Of this, a total of 278.21 ha of green belt have been developed and the balance area of 85.62 ha shall also be brought under plantation, which includes plantation in a width of 15-20m along the remaining boundary wall of 3km of the 8km.”	Present green belt is 29% of land in possession

33.8.4 This additional land of 269.52 ha will be exclusively required to store Bauxite Residue up to year 2045 after production of 6.0 MTPA Alumina by year 2025, development of additional green belt and Railway line which are requirement after production is started. The Phase-II & Phase-III plant will be set up in the existing campus & no additional land is required for the same and also for the colony. 87.81ha of land in final stage of acquisition can store Bauxite Residue up to year 2040. The amendment is sought for Phase-III production to set up plant & machinery while land acquisition process is in progress.



33.8.5 The plant is already producing 2MTPA after completing Phase-I. Amendment is also sought for production of 5.0 MTPA production in Phase-II and 1.0 MTPA production in Phase-III to meet immediate demand of downstream Aluminum smelter plant with which import of Alumina will be reduced and foreign exchange can be saved. Instead of going from 2 to 4 MTPA in Phase-II, company proposes for 2 to 5.0 which can be achieved with small modifications and production can be achieved in short time/

33.8.6 One court case is pending at NGT, Kolkata as on date:

*“Shri Prafulla Samantaray, an environmental activist, has filed an appeal before NGT, Kolkata against the order of MOEF granting EC for expansion of Alumina Refinery from 1 to 4 MTPA and CPP from 75 to 285 MW dated 20.11.2015. The pleading in the matter is complete, however the same has not been heard owing to the paucity of the judges in the tribunal. No interim order has been passed by Hon’ble Court on this matter.”*

33.8.7 The proposal was considered by the EAC (Industry 1) in its 33<sup>rd</sup> meeting held on 30<sup>th</sup>-31<sup>st</sup> March, 2021. The observations and recommendations of EAC is given as below:

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

33.8.8 The EAC noted the following:

- i. The land required for the expansion of Alumina refinery from 4 to 6 MTPA has been reduced from 666 ha to 666 acres. No justification is provided regarding the reduction in land area nor the requisite supporting study report of M/s. Engineers India Limited provided.
- ii. It was apprised that reduction in land requirement will be achieved by increasing the height of red mud pond up to 55 meter. However, no scientific study report has been made available with respect to stability of red mud pond.
- iii. The revised land of 666 acres is yet to be acquired by the PP. No alternate proposal for red mud management has been submitted in the event of non-acquisition of revised land of 666 acres (or) contiguous land for red mud disposal.
- iv. The land use break up for the Alumina refinery based on the reduced land requirement has not been furnished.
- v. Plant layout depicting the phase wise alumina refinery with green belt and allied facilities such as red mud pond and revised ash pond has not been made available.
- vi. In addition to the EC amendment, PP also sought for change in configuration of the alumina refinery - Phase 1 from 2.0 to 2.1 MTPA by debottlenecking, Phase 2 from 4 to 4.9 MTPA by adding 2.8 MTPA stream and Phase 3 from 4.9 to 6 MTPA by adding 1.1 MTPA stream.
- vii. PP has commissioned only 2.0 MTPA Alumina refinery till date as against the sanctioned capacity of 4 MTPA.

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

33.8.9 In view of the foregoing and after deliberations, EAC opined that additional clarifications on the observations made above is required. The proposal therefore is returned in its present form to address the shortcomings. Further, the Committee asked the PP to obtain EC amendment for alumina refinery expansion from 4 to 6 MTPA with reduced land requirement from 1552.3 ha to 1102.9 ha

and thereafter separate application should be submitted for change in configuration of alumina refinery.

33.9 Iron Ore Beneficiation Plant for production of 14.3 MTPA pellet feed iron ore concentrate (on dry basis) by **M/s. Essar Minmet Limited** at Tikarpada and Kadagarh villages, Tehsil Kendujhar Sadar, **Kendujhar district, Odisha** [Proposal No. IA/OR/IND/204962/2021, MoEF&CC File No. IA-J- 11011/110/2021-IA-II(I)] – **Prescribing of Terms of Reference - regarding.**

33.9.1 M/s. Essar Minmet Limited has made an application online vide proposal no. IA/OR/IND/204962/2021 dated 21/03/2021 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 being appraised at Central Level.

**Details submitted by Project proponent**

33.9.2 The project of M/s. Essar Minmet Limited located in Tikarpada and Kadagarh villages, Tehsil Kendujhar Sadar Kendujhar district, Odisha state is for setting up of Iron Ore Beneficiation Plant for production of 14.3 MTPA pellet feed iron ore concentrate (on dry basis).

33.9.3 Environmental site settings

S No.	Particulars	Details
i.	Total land	38.38 ha Government Land.
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	Lat :21°41'20" N to 21°41'55" N Long:85°32'58"E to 85°33'36"E
iv.	Elevation of the project site	450 – 485 m AMSL
v.	Involvement of Forest land if any.	Nil
vi.	Water body exists within the project site as well as study area	<b>Project site:</b> None  <b>Study area :</b> Machkandana Nadi: 1.0 km in East Ardai Nadi: 3.77 km ENE Nala
vii.	Existence of ESZ/ESA/national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/elephant reserve etc. if any within the study area	Belda RF - 8 km in E PF - 7 km in NE Nayagarh RF - 6 km in NW Ichinda RF - 3 km in SW Gandhamardhan PF - 7 km in SW SanaGhagara RF - 3.5 km S

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

S No	Description	Proposed
1.	Grinding and beneficiation Plant	2 x 7.5 MTPA
2.	a) Concentrate thickeners (HRT-1) - For DR grade conc. b) Concentrate thickeners (HRT-2) - For BF grade conc.	Matching Capacity
3.	Intermediate thickeners (3 Nos.)- HRT-1, HRT-2 and HRT-3	
4.	Residual fines thickener	
5.	Residual fines storage tank	
6.	Concentrate slurry holding tanks with agitator	
7.	Pump house for slurry transportation	

33.9.5 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 Material	Quantity (TPA)	Likely source	Mode of Transport
1	Iron ore fines	17,500,000	Will be sourced/ procured locally from the surrounding major merchant iron ore mines in Joda Barbil- Koira regions (Kendujhar and Sundargarh Districts) of Odisha	Road/Rail

33.9.6 The water requirement for the project is estimated as 17,520 m<sup>3</sup> /day. This water requirement would be met from river Baitarani/ Mahanadi through pipeline and stored in a raw water reservoir for both Beneficiation Plant make-up and Slurry Pipeline requirements. The permission for drawl of surface water is under process as communicated by Industrial Dept., Govt. of Odisha vide letter no. 162 dated 22/01/2021.

33.9.7 The power requirement for the project is estimated as 38MW which will be obtained from the State grid /private power producer. The permission for power is under process as communicated by Industrial Dept., Govt. of Odisha vide letter no. 162 dated 22.01.2021.

33.9.8 The capital cost of the project is Rs.1918crores and the capital cost for environmental protection measures is proposed as Rs. 75 crores approximately. The employment generation from the proposed project is 1353.

33.9.9 Proposed Terms of Reference (Baseline data collection period: March to May 2021(Summer ))

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
A. Air				
a. Meteorological	temperature,	1	Continuous	-

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
parameters	relative humidity, cloud cover, rainfall, wind speed, wind direction		hourly recording for 90 days	
b. AAQ parameters	PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, O <sub>3</sub> , NH <sub>3</sub> , C <sub>6</sub> H <sub>6</sub> , BaP, Pb, As, and Ni	8	twice a week on 24 hrs basis for a total duration of 12 weeks	-
B. Noise	Leq for day time and night time	8	Once in a season	-
<b>C. Water</b>				
Surface water	Physico-chemical and biological covering 28/30 parameters	8	Once in a season	-
Ground water quality parameters	parameters as per IS: 10500	8	Once in a season	-
<b>D. Land</b>				
a. Soil quality	physicochemical, nutrients level and micro-biological characteristics	3	Once in a season	-
b. Land use	Based on recent times satellite imageries, Survey of India's OSM and ground validation	Study area of 10 km aerial coverage	Once in a season	-
<b>E. Biological</b>				
a. Aquatic	Study area of 10 km aerial coverage	8	Once in a season	-
b. Terrestrial				-
F. Socio-economic parameters	-	Study area of 10 km aerial coverage	Once in a season	Focus group discussion

33.9.10 There is no violation under EIA, 2006/court case/show cause/direction if any, related to the project under consideration.

33.9.11 EIA consultant - M/s. M.N. Dastur & Co (P) Ltd [NABET Certificate No. NABET/EIA/1821/RA0131 valid till 17.05.2021].

33.9.12 The proposal was considered by the EAC (Industry 1) in its 33<sup>rd</sup> meeting of the Re-constituted EAC (Industry-I) held on 30<sup>th</sup>-31<sup>st</sup> March, 2021. The observations and recommendations of EAC is given as below.

**Observations of the Committee**

33.9.13 The EAC noted the following:

- i. Total land required shall be 38.38 ha. The entire land is Govt land.
- ii. No R&R is involved.
- iii. Water requirement of 17520 Cum/day shall be sourced from Baitarni river 35 Km from the plant.
- iv. Gualdih station is 3.2 Km and NH 215 is 2.5 km from site.
- v. Dedicated conveyor from Guadih Station to the plant shall be provided.
- vi. A dedicated road of 4 km shall be constructed from the plant to NH 215.

**Recommendations of the Committee**

33.9.14 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. Traffic study shall be carried out inter-alia including existing road details with traffic load, proposed quantum of material to be transported by road with anticipated vehicle details, line source modelling and road strengthening details etc., These details shall be included in the EIA report.
- ii. Scheme for rain water harvesting shall be prepared inter-alia including recharge of ground water and construction of check dams to ensure harvesting of water to the extent abstracted from river Baitarni (depending upon annual rain fall) and the details shall be included in the EIA report.
- iii. Letter from Water Resources Department of State Government of Odisha shall be obtained regarding the availability of water in river Baitarni and permission for drawl of 17520 KLD water shall be submitted.
- iv. Socio-economic survey in the project influence area that is 10 Km radial coverage from the project site shall be carried out and included as part of EIA report.
- v. The list of flora and fauna with its schedule existing in the study area shall duly be authenticated by the Divisional Forest Officer and submitted along with the EIA report.
- vi. Contour survey of the plant site and slime storage area with drainage pattern shall be undertaken and included in the EIA report.
- vii. Mass balance of Iron Ore Grinding and De-Sliming Plant (Beneficiation Plant) shall be submitted in the EIA report.
- viii. A separate chapter on slime management inter-alia including slime pond location, transport of dewatered iron ore slimes to storage area, lining arrangement at the bottom of the slime pond, leachate collection system, its treatment and monitoring etc., shall be prepared and included in the EIA report.
- ix. Risk assessment, safety and surveillance system to be adopted in the pipeline route shall be included in the EIA report.

- x. Public Hearing for the project shall be conducted by the concerned State Pollution Control Board in accordance with the provisions of the Rules.
- xi. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
- xii. The project proponent should carry out social impact assessment of the project and submit the EMP as per the Ministry's Office Memorandum dated 30.9.2020.
- xiii. Garland drains shall be constructed around the stock piles and catch pits shall be constructed to trap the run off material.
- xiv. Run off water shall be treated to remove Total Suspended Solids and Colour.
- xv. Wind Breakers shall be provided around stockpiles.
- xvi. All plant roads shall be paved and industrial vacuum cleaners shall be used to clean the roads regularly.

33.10 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)] – **Reconsideration for Environment Clearance based on ADS reply – regarding**

33.10.1 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**

33.10.2 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>
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

33.10.3 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).

33.10.4 Environmental Site Settings

S. No.	Particulars	Details
i.	Total land	425.91 acres
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	425.91 Acres - owned by OCL
iii.	Existence of habitation & involvement of R&R, if any.	No R & R is involved. No additional land involved under the proposed expansion.
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> DevapurVagu – 2.6 km – ENE RallaVagu – 5.3 km – ENE VolliVagu – 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	Nil. No ESZ/ ESA/ National park/wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant in Study area.

33.10.5 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.

33.10.6 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

33.10.7 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	50 (2 x 25 MW)	1.25	4.10	75 MW (addition of 25 MW WHRB CPP)
Unit –II	0.92			1.10		
Unit –III	1.39			1.65		

	Before Expansion			After expansion		
	Clinker	Cement	Power (MW) (Coal based CPP)	Clinker	Cement	Power (MW) (15 MW for Units I,II & II and 10 MW for Unit IV)
	(MTPA)			(MTPA)		
Unit –IV	-	-		2.50	3.50	
<b>Total</b>	<b>3.50</b>	<b>3.07</b>		<b>6.50</b>	<b>7.60</b>	

33.10.8 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

33.10.9 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.

33.10.10 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.

33.10.11 Baseline Environmental Studies:

Period	Summer season – 2018 (March – May, 2018)
AAQ parameters at 9	PM <sub>2.5</sub> = 19.5 to 32.9 µg/m <sup>3</sup>



Locations	PM <sub>10</sub> = 42.7 to 67.7 µg/m <sup>3</sup> SO <sub>2</sub> = 7.6 to 12.8µg/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.

33.10.12 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
2	Municipal Solid waste	Residential colony	146	Burn in kiln
3	Waste oil as hazardous waste	--	170 KL per year	Sold to Authorized recycler

33.10.13 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, Mancheril Tehsil and District, Telangana.
<b>Presiding Officer</b>	Sri Y. Surender Rao, Joint Collector & Addl. District Magistrate, Mancheril 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> </ul>

	<ul style="list-style-type: none"> <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>
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**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 Rs Lakhs	32	-	-	<b>32</b>
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	<b>Physical Nos</b>	1	1	-	<b>2</b>

S. No	Activity		1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	Total
	necessary facilities in Devapur&Maddimada villages	@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 Panchayat office	<b>Physical Nos</b>	-	1	-	<b>1</b>
		@Village	-	Devapur	-	
		Budget Rs Lakhs	-	25	-	<b>25</b>
<b>DRINKINGWATER</b>						
1	Provision of RO plants for drinking water in 2 villages @5 lakhs per RO unit	<b>Physical Nos</b>	4	4	-	<b>8</b>
		@Village	Devapur	Maddimada	-	
		Budget Rs Lakhs	20	20	-	<b>40</b>
<b>SKILLDEVELOPMENT</b>						
1	Providingskilldevelopment trainingtoITI&diplomassedlocalyouth(for 10 members) peryearinplantsforaspanofoneyear.	<b>Physical Nos</b>	10 students/year	10 students/year	10 students/year	<b>30</b>
		@Village	<b>Local Youth from 10 km radius</b>			
		Budget Rs Lakhs	10	10	10	<b>30</b>

S. No	Activity		1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	Total
	Three batches of 10 each for 3 years. Monthly stipend @ Rs. 8153/pm for 1 year to each of the trainee.					
<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	-	<b>5</b>
		@ Village	-	Devapur	-	
		Budget Rs Lakhs	-	45	-	<b>45</b>
<b>OTHERS</b>						
1	Plantation under "Telangana kuHaritha 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>	7500 saplings	7500 saplings	-	15000
		@ Village	Devapur	Maddimada	-	
		Budget Rs Lakhs	15	15	-	<b>30</b>
<b>TOTAL BUDGET (In lakhs of rupees) – Implementation period - 3 years</b>						<b>558</b>

33.10.14 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

33.10.15 The Cement plant is presently located in an area of 425.91 Acres and expansion is proposed within the existing area. OCL proposes to develop greenbelt in 40 % 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%.

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

33.10.17 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**

33.10.18 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) pertaining to AAQ monitoring is partly complied. In this regard, project proponent has been advised to ensure the parameters of AAQ monitoring in accordance with the parameters prescribed in the latest NAAQS standards.

33.10.19 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 28th 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.

33.10.20 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.

**Observations of the Committee (EAC during 15-17<sup>th</sup> March, 2021)**

- 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 (EAC during 15-17<sup>th</sup> March, 2021)**

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 2500 trees per ha. 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.

33.10.21 The project proponent has submitted the reply to their ADS on 25/03/2021. The ADS reply given by the PP is summarized as below:

S.No.	ADS raised	Reply by project proponent
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.	Greenbelt will be developed in 40 % of the area i.e in 175 acres (Existing Greenbelt – 110 acres + Proposed Greenbelt - 65 acres). Action plan to this effect has been submitted.
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.	The number of trees to be cut has been reduced from 3600 to 1271. A detailed survey has been carried out to assess the number of trees to be cut to accommodate proposed expansion units. OCL has submitted a letter to Forest Department, Govt of Telangana on

S.No.	ADS raised	Reply by project proponent
		22.03.2021 for obtaining the guidance for proper application process. Based on the application, Deputy Ranger Forest, I/C Devapur has inspected the Non-Teak and Teak Trees proposed for felling in the premises of proposed expansion unit (Unit-IV) within the existing Cement Plant area and authenticated the number of trees for felling as 1271. OCL was advised to apply for permission through online module as per The Water, Land and Tree Act (WALTA) for obtaining required permission. Accordingly, application has been submitted on 22/03/2021.
iii.	OCL shall install Filter Press for STP sludge dewatering.	OCL committed for installation of Filter Press for STP sludge dewatering.
iv.	Monitoring schedule for dioxin and furan shall be submitted.	OCL is/will carry out testing of dioxins and furans twice in a year as per the prevailing practice.

33.10.22 Accordingly, the proposal was re-considered by the EAC (Industry 1) in its 33<sup>rd</sup> meeting of the Re-constituted EAC (Industry-I) held on 30<sup>th</sup>-31<sup>st</sup> March, 2021. The observations and recommendations of EAC is given as below:

#### Observations of the Committee

33.10.23 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 findings of the Regional Office report as well as ADS reply and found it satisfactory.
- iv. The requirement of tree felling has been reviewed and the number of trees required to be felled has been considerably reduced from 3600 to 1271. It has also been noted that out of 1271 trees, most of the trees, which are required to be felled, are *subabul*.

#### Recommendations of the Committee

33.10.24 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the 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 cement plants based on project specific requirements:

**A. Specific conditions**

- i. PM emissions from the stacks shall be less than 30 mg/Nm<sup>3</sup>.
- ii. Air cooled condensers shall be provided in the captive power plant.
- iii. CEMS shall be provided on all process stacks and the signal shall be received in plant control room for central control of APCDs installed in the plant.
- iv. Alternate fuel including colony/canteen waste and waste oil shall be used in cement kiln.
- v. Dioxin and Furan monitoring shall be carried out once in six months at cement kiln stack.
- vi. Specific water and energy consumption in the plant shall not exceed;
  - a. Total Water consumption - 3250 KLD
  - b. Specific heat consumption 690 kcal/ kg clinker.
  - c. Power consumption of Clinker Manufacturing reduced 52.0 kwh/Ton.
  - d. Power consumption of Cement Grinding – PPC- 63.0 kwh/Ton ; OPC – 80 kwh/t
- vii. Plant roads shall be paved and an industrial vacuum cleaner shall be deployed to clean the roads regularly to keep fugitive emission under control.
- viii. Rain Water Harvesting shall be carried out in the 7.5 acres pond area within the project premise.
- ix. Treated effluent from the plant shall be reused and recycled completely.
- x. Parking facility inside the factory shall be provided for minimum of 350 vehicles.
- xi. Green belt shall be planted in 40% area (175 acres) with a tree density of 1000 trees per acre.
- xii. Trees required to felled will need prior approval of the Competent Authority as per the rules / regulations of the State Government. To compensate for the loss of 1271 trees, 6000 trees or whatever is prescribed by the competent State Authority, whichever is more, shall be additionally planted in the project area.
- xiii. 50 m wide greenbelt will be raised within the Plant Area towards the Reserved Forests to serve as a buffer.
- xiv. STP sludge shall be filtered in filter press.
- xv. Four CAAQMS shall be installed and the location of these stations shall be decided in consultation with the SPCB.

**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 (CEMS) at process stacks to monitor stack emission as well as 4 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 labs recognized under Environment (Protection) Act, 1986.
- iii. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- iv. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash;
- v. The project proponent shall provide wind shelter fence and chemical spraying on the raw material stock piles;
- vi. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport, and
- vii. Ventilation system shall be designed for adequate air changes as per the prevailing norms for all tunnels, motor houses, cement bagging plants.

### **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. No. 612 (E) dated 25<sup>th</sup> August, 2014 (Cement) and subsequent amendment dated 9<sup>th</sup> May, 2016 (Cement) and 10<sup>th</sup> May, 2016 (in case of Co-processing Cement) 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 regularly monitor ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off
- v. Water meters shall be provided at the inlet to all unit processes in the cement plant.
- vi. The project proponent shall make efforts to minimise water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.

### **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. Waste heat recovery system shall be provided for kiln and cooler.

- ii. The project proponent make efforts to achieve power consumption less than 65 units/tonne for Portland Pozzolona Cement (PPC) and 85 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.
- 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 the project proponent for LED lights in their offices and residential areas.
- v. Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.
- vi. Maximize utilization of alternate fuels and Co-processing to achieve best practice norms.

**VI. Waste management**

- i. Used refractories shall be recycled as far as possible.
- ii. 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 in the plant premises.

**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 approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

**X. Miscellaneous**

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by

- prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
  - iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
  - iv. The project proponent shall monitor the criteria pollutants level namely; 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.

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

**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 33RD EAC MEETING HELD ON 30 TO 31ST MARCH 2021**

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**From :** cnpandey@iitgn.ac.in Tue, Apr 06, 2021 03:18 PM  
**Subject :** Re: DRAFT MOM OF 33RD EAC MEETING HELD ON 30 TO 31ST MARCH 2021 📎 1 attachment  
**To :** Sundar Ramanathan <r.sundar@nic.in>  
**Cc :** Sujit Kumar Bajpayee <sujit.baju@gov.in>, MAHENDRA PHULWARIA <m.phulwaria@gov.in>

Dear Mr Sundar,  
Please find attached herewith the final and approved MoM for the 33rd EAC held online on 30th and 31st March, 2021. You are requested to take further necessary action regarding putting it on PARIVESH.  
The efforts put up by you and other committee members for timely finalisation of the proceedings is highly appreciated. I am hopeful that we will continue these efforts in future.  
Thanks a lot,  
With best wishes,  
C. N. Pandey,  
Chairman,  
EAC, Industry I, MoEFCC, GoI