

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

Date of zero draft MoM sent to Chairman: 01/09/2021

Approval by Chairman: 08/09/2021

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Summary record of the Forty Third (43rd) meeting of Re-Constituted Expert Appraisal Committee (REAC) held on 26 – 27th August, 2021 for environment appraisal of Industry-1 sector projects constituted under the provisions of Environment Impact Assessment (EIA) notification, 2006.

The Forty 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 26 – 27th August, 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) pandemic. The list of EAC attendees are as follows:

S. No.	Name	Position	26/08/2021	27/08/2021
1.	Dr. Chhavi Nath Pandey	Chairman	Present	Present
2.	Dr. M.K. Gupta, Director, CPPRI.	Member	Present	Present
3.	Dr. Siddharth Singh,	Member	Present	Present
4.	<i>Dr. Jagdish Kishwan</i>	<i>Member</i>	<i>Absent</i>	<i>Absent</i>
5.	<i>Dr. Tejaswini Ananth Kumar</i>	<i>Member</i>	<i>Absent</i>	<i>Absent</i>
6.	Dr. G.V. Subramanyam	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	Present
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
Officials from MoEF&CC				
14.	Shri. Sundar Ramanathan	Member Secretary	Present	Present
15.	Dr. Vipin Gupta	Scientist 'B'	Present	Present

After welcoming the Committee Members, discussion on each of the agenda items was taken up. The minutes of 42nd meeting held during 12-13th August, 2021 were confirmed by the EAC as already uploaded on PARIVESH.

26th August, 2021

43.1 Expansion of Integrated Steel Plant (16 MTPA to 18 MTPA) and captive power Plant 1490 MW by **M/s. JSW Steel Limited** located at Vijayanagar Works Toranagallu Village, Tehsil Sundur, **Ballari District, Karnataka** [Online Proposal No. IA/KA/IND/31502/2010, File No. J-11011/489/2009-IA.II(I)] –**Environment Clearance – regarding.**

43.1.1 M/s JSW Steel Limited has made an online application vide proposal no. IA/KA/IND/31502/2010 dated 10/08/2021 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 & nonferrous) under Category “A” of the schedule of the EIA Notification, 2006 and is appraised at the Central level.

Details submitted by Project proponent

43.1.2 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord
22/06/2018	35 th meeting held during 17 th to 18 th September, 2018	Terms of Reference	09/10/2018

43.1.3 The project of M/s. JSW Steel Limited located in Toranagallu Village Ballari District, Karnataka is for enhancement of production capacity of its Integrated Steel Manufacturing Plant from 16 MTPA to 18 MTPA based on technology BF-BOF/EAF Route.

43.1.4 Environmental Site Settings:

SNo	Particulars	Details	Remarks
i.	Total land	3134 ha [Private: 3134 ha; Govt.: 0; Other: 0]	Land use: Industrial
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014.	Total land is in possession of JSW	
iii.	Existence of habitation & involvement of R&R, if any.	NIL	
iv.	Latitude and Longitude of the project site.	Latitudes (North) - From 15°10'0.12" To 15°12'0" Longitudes (East) - From 76°37'58.8" To 76°40'0.12"	-
v.	Elevation of the project site.	540 m above msl	-
vi.	Involvement of Forest land if any	No Forest Land Involved	-

SNo	Particulars	Details	Remarks
vii.	Water body exists within the project site as well as study area	Project site: Nil Study area: Daroji Kere 3.2 Km N Taranagar Dam 7 Km South	-
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Study area: Daroji Bear Sanctuary and its Eco-sensitive Zone Daroji Bear Sanctuary is located at a distance of 6.7 Km from the main expansion area and at a distance of 3.8 Km from existing JSW Plant Boundary. Status of NBWL approval: No new approval required. NBWL recommendation for the previous expansion over the same land area is available vide letter no 6-79/2015 WL (35th Meeting) dated 19/08/2015.	On 25 th September 2019, Gazette Notification S.O. 3528 (E) regarding Daroji Bear Sanctuary Eco Sensitive Zone came into effect. An area to an extent varying from 1.0 kilometer to 4.7 kilometer around the boundary of Daroji Bear Sanctuary in Ballari district in the State of Karnataka was notified as Daroji Bear Sanctuary Eco Sensitive Zone.

43.1.5 The existing project was accorded environmental clearance vide Ir.no. J-11011/489/2009 IA-II(I) dated 01st October 2015 and amendments dated 9th June 2016, 22nd January, 2018 and 29th May 2018. Consent to Operate for the existing plant was accorded by Karnataka State Pollution Control Board project vide Ir.no. 126/PCB/MIN/CFO/2016-17/OB/318 dated 20/06/2016 and vide KSPCB OM No. KSPCB/Corp Cell/2021/644 dated 02/06/2021, the validity of CTO is extended up to 30.09.2021.

43.1.6 Implementation status of the existing EC:

Sl No.	Facility	Units	Capacity		
			As per EC	Implementation Status as on date	As per CTO
1	Ore beneficiation Plant	OBP-1	1 X 4.5 MTPA	1 X 4.5 MTPA	1 X 4.5 MTPA
		OBP-2	1X 2.5 MTPA	1X 2.5 MTPA	1X 2.5 MTPA
			1X 5.0 MTPA	1X 5.0 MTPA	1X 5.0 MTPA
			1 X 7.5 MTPA	1 X 7.5 MTPA	1 X 7.5 MTPA
2	Coke Oven	CO1 (NR)	0.64 MTPA	Dismantling	0.64 MTPA
		CO2 (NR)	0.64 MTPA	Dismantling	0.64 MTPA
		CO3	1.5 MTPA	1.5 MTPA	1.5 MTPA
		CO4	2 MTPA	2 MTPA	2 MTPA
		CO5	3 MTPA	Under Construction	-

Sl. No.	Facility	Units	Capacity		
			As per EC	Implementation Status as on date	As per CTO
		CO6	1.5 MTPA	Yet to be installed	-
3	Sinter Plants	SP1	2.3 MTPA	2.3 MTPA	2.3 MTPA
		SP2	2.3 MTPA	2.3 MTPA	2.3 MTPA
		SP3	5.75 MTPA	5.75 MTPA	5.75 MTPA
		SP4	2.3 MTPA	2.3 MTPA	2.3 MTPA
		SP5	1.75 MTPA	Not yet installed	-
		SP6	5.75 MTPA	Not yet installed	-
4	Pellet Plants	PP1	5 MTPA	5 MTPA	5 MTPA
		PP2	5 MTPA	5 MTPA	5 MTPA
5	Hot Metal-COREX	COREX 1	0.8 MTPA	0.8 MTPA	0.8 MTPA
		COREX 2	0.8 MTPA	0.8 MTPA	0.8 MTPA
6	Hot Metal- Blast Furnace	BF1	2.5 MTPA	1.88 MTPA	1.88 MTPA
		BF2	2.17 MTPA	2.16 MTPA	2.16 MTPA
		BF3	4.4 MTPA	Expansion from 3 MTPA to 4.4 MTPA ongoing	3 MTPA
		BF4	3 MTPA	3 MTPA	3 MTPA
		BF5	3 MTPA	Not yet installed	-
7	DRI Plant	-	1.2 MTPA	1.2 MTPA Operational under JSW Projects Limited	1.2 MTPA
8	Pig Caster	-	1X1200 tpd +3X3600 tpd	1X1200 tpd +2X3600 tpd	1X1200 tpd +2X3600 tpd
9	Crude steel	SMS1	3.8 MTPA	3.8 MTPA	4 MTPA
		SMS2	6.4 MTPA	6 MTPA	6 MTPA
		SMS3	2X1.2 MTPA (EAF)	1X1.2 MTPA (EAF)	1X1.2 MTPA (EAF)
		SMS4	2X200 T converter (BOF)	Not installed.	-
10	Lime Kilns	LCP1	4X300 tpd	4X300 tpd	4X300 tpd
		LCP2	4X300 tpd + 4 X600 tpd	4X300 tpd + 3X600 tpd	4X300 tpd+ 3X600 tpd
		LCP3	2X600 tpd	1X600	1 X600
		LCP4	3X600 tpd	Yet to be installed	-
11	Casters	Slab Caster 1	3.2 MTPA	3.2 MTPA	4 MTPA
		Slab Caster 2	6.4 MTPA	6.4 MTPA	6.4 MTPA
		Slab Caster 3	1.6 MTPA	1.6 MTPA	1.6 MTPA
		Slab Caster 4	3.6 MTPA	Not installed	-
		Billet Caster 1	1.5 MTPA	0.5 MTPA	0.5 MTPA

Sl. No.	Facility	Units	Capacity		
			As per EC	Implementation Status as on date	As per CTO
		Billet Caster 2	3.0 MTPA	3.0	3.0
12	Hot Strip Mills	HSM1	4.0 MTPA	3.2 MTPA	3.2 MTPA
		HSM2	5.2 MTPA	5.0 MTPA	5.0 MTPA
		HSM3	3.6 MTPA	Not installed	-
13	Pipe Mill	-	0.4 MTPA	Not yet installed	-
14	Wire Rod Mill	WRM1	0.6 MTPA	0.6 MTPA	0.6 MTPA
		WRM2	1.2 MTPA	Under Construction	-
15	Rebar & Section Mills	BRM1	1.0 MTPA	1.0 MTPA	1.0 MTPA
16	Cold Rolling Mills	CRM1	1.8 MTPA	1.0 MTPA	1.0 MTPA
		CRM2	2.3 MTPA	2.0 MTPA	2.0 MTPA
17	Galvanizing Lines	CGL1	4X0.25 MTPA	0.4 MTPA	0.4 MTPA
		CGL2	2X0.45 MTPA	Yet to be installed	-
18	Colour Coating Line	-	0.5 MTPA	Not Yet Installed	-
19	Captive Power Plants	CPP1 – Gas based	100 MW	100 MW	100 MW
		CPP2 – Gas based	130 MW	130 MW	130 MW
		CPP3 – Coal + Gas	300 MW	300 MW	300 MW
		CPP4 – Coal + Gas	300 MW	300 MW	300 MW
		CPP5	660 MW	Not Yet Installed	-
20	Incinerator	-	1000 kg/h	250 kg/h	250 kg/h
21	Slag Grinding and mixing unit	CP1	0.2 MTPA	0.2 MTPA	0.2 MTPA
		CP2	2.0 MTPA	Not Yet Installed	-
22	Oxygen Plant (Out sourced)	-	1X2500 tpd	1X2500 tpd	1X2500 tpd
		-	4X1800 tpd	4X1800 tpd	4X1800 tpd
		-	1X900 tpd	1X900 tpd	1X900 tpd
23	Township	-	6 Nos	4 Nos	4 Nos

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

Sl no	Name of the Unit	Facilities at various stages of expansion in MTPA				Total Capacity (at 16 MTPA)	Facilities Proposed (at 18 MTPA)	Total Capacity (at 18 MTPA)
		4 -MTPA	4-10 MTPA	10-16 MTPA	At 16 MTPA			
1	Ore Beneficiation Plant - product	OBP-11 X 4.5	OBP-2 1X 2.5, 1X 5.0 & 1 X 7.5,	Nil	1 X 4.5 1X 2.5 1X 5.0 1 X 7.5	19.5	OBP-1 facilities to be Relocated to OBP-2	19.5
2	Pellet Plants	PP1- 1-5.0	PP-2-5.0	Nil	PP 1 & 2 2 X 5.0	10	PP-3 6.8	16.8
3	Sinter Plants	SP1	SP 2 -2.3 SP 3- 7.5	SP4 -2.3 SP5 -1.75 SP6 -5.75	SP1-6 3X 2.3 2 X 5.75 1 X 1.75	20.15	SP-5: 2.3 SP-6: deferred in lieu of PP-3	14.95
4	Coke Oven – NR	CO 1 &2 2 X0.64 1.28	Nil	Dismantling of Existing NR Coke Oven	0	0	No addition	0
5	Coke Oven – Recovery type	Nil	Coke 3 - 1.5	CO 1&2 - 1.5	CO 1-5 2X1.5 1X2.0 1X3.0	8.0	No addition	8.0
6	Hot metal – Corex	Corex 1 & 2 2X0.8	Nil	Nil	Corex 1- 2 2 X 0.8	1.6	No addition	1.6
7	Hot metal- Blast Furnace	BF-1-2.5 BF-2-2.17	BF 3 & 4 2 X 3.0	BF-3- 4.4 BF-5- 3.0	BF 1 -5 1X 2.5 1X 2.17 1X4.4 2X 3.0	15.07	BF-5 of 3.0 MTPA to be built as 4.5 MTPA	16.57
8	Pig Casting Machines (TPD)	1200	7200	3600	12000	12000	MGP-5000 tpd	17000
9	Crude steel - BOF, EAF & auxiliaries	SMS1 3.80	SMS2 6.0	SMS2 -6.4 SMS 3 & 4- 5.6 2X200T BOF +2X1.2 EAF	SMS1-4 1X3.8 1X6.4 1X3.0 1X2.6	15.8	SMS-3: In place of 1 EAF, 1 ZPF is considered SMS-4 will be changed from 2 x 200T to 2 x 350T & will operate at 4.8 mtpa	18
10	Lime Kiln (TPD)	LCP-1 4x300	LCP-2 4X300 4X600	LCP-3 4 x 600	LCP 1- 4 8 X 300 8 X 600	7200	No addition	7200
11	Slab Caster	SMS-1 3.2	SMS2 6.4	SMS-3- 1 X1.6 SMS-4- 1X3.6	Slab Caster 1- 4 14.8	14.8	SMS-4 slab caster changed from 1 x 3.6 mtpa to 2 x 2.5 mtpa	16.2
12	Billet caster	Nil	SMS-2 1.5	SMS-3 3.0	4.5	4.5		4.5
13	HSM	HSM 1 1X4.0	HSM-2 1X5.2	HSM-3 1X3.6	HSM1-3 12.8	12.8	HSM-3 upgraded to 5.0	14.2
14	Plate Mill	Nil	Nil	Nil	Nil	Nil	No addition	Nil
15	Pipe Mill	Nil	0.4	Nil	1X 0.4	0.4	No addition	0.4

Sl no	Name of the Unit	Facilities at various stages of expansion in MTPA				Total Capacity (at 16 MTPA)	Facilities Proposed (at 18 MTPA)	Total Capacity (at 18 MTPA)
		4 -MTPA	4-10 MTPA	10-16 MTPA	At 16 MTPA			
16	Wire rod mill	Nil	WRM-1 1x0.6	WRM-2 1.2	WRM 1-2 1X0.6, 1X1.2	1.8	No addition	1.8
17	Rebar & Section mill	Nil	BRM-1 1X1.0	Nil	BRM-1 1.0	1	New BRM-2 of 1.2 MTPA	2.2
18	Cold Rolling Mill Complex		CRM-1- 1.8 CRM-2- 2.3	Nil	CRM1&2 4.1	4.1	CRM-3 of 2.3 MTPA	6.4
19	Galvanizing Lines	Nil	Nil	CGL-1- 4X0.25 CGL-2- 2X0.45 -	CGL 1&2 4X0.25 2X0.45	1.9	No addition	1.9
20	Color Coating Line	Nil	0.5	Nil	0.5	0.5	No addition	0.5
21	Power Plant and process steam boilers in MW	CPP 1X100 CPP-2 1X130 all gas	CPP 3 & 4 2X300 gas+coal	CPP5- 1X660 coal	CPP 1-5 1X100, 1X130, 2X300,1X660	1490	No addition	1490
22	Incinerator (kg/hr)	Nil	2 X 250kg/h	250kg/h	2 X 250kg/h	1000kg/h	No addition	1000kg/h
23	Slag Grinding and mixing unit	CP-1 1X 0.2	Nil	CP-2 1X2.0	CP-1&2 1X0.2 1X2.0	2.2	No addition	2.2
24	Oxygen Plant (Out sourced)	1x2500 TPD=2500 TPD	2x1800 TPD + 1X900 TPD	2X1800 TPD	1 X 2500 TPD 4 X1800 TPD 1 X 900 TPD	10600 TPD	1 x 2060(TP) 1 x 2200	14860 TPD
25	Township (nos)	2 Units	2 Units	2 units	6 units	6 units	1 unit	7 units

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

Sl. No.	Raw materials	Quantity Required ton/annum			Source and location		Distance of Domestic sources from Plant (km)	Mode of Transport
		Existing	Expansion	Total	Import Source	Domestic Source		
1	Iron ore fines	2,16,77,778	27,09,722	2,43,87,500	Australia, Brazil	Bannihatti, Sandur, Hospet, Chitradurga, Orissa & Goa	30 30 35 125 1294 349	Pipe conveyor Pipe conveyor Rail/Road Rail Rail Rail
2	Iron ore lumps	12,53,333	1,56,667	14,10,000	South Africa, Australia	Bannihatti, Sandur, Hospet,	30 30 35	Rail/Road
3	Coking coal	96,00,000	12,00,000	1,08,00,000	Australia, Canada, USA, Mozambique	-	-	Sea/Rail

					e			
4	COREX coal	11,20,000	0	11,20,000	Australia, Russia, South Africa	-	-	Sea/Rail
5	PCI coal	30,34,000	2,80,000	33,14,000	Australia, Russia	-	-	Sea/Rail
6	Anthracite coal	3,82,222	47,778	4,30,000	Russia, Finland, Latvia	-	-	Sea/Rail
7	Limestone LCP	40,15,665	5,01,958	45,17,623	UAE, Oman	-	-	Sea/Rail
8	Limestone Agg	8,51,766	1,06,470	958236	UAE, Oman	-	-	Sea/Rail
9	Dolomite Agg	6,47,420	80,927	7,28,347	Thailand, UAE, Oman	Bagalkot-Karnataka, Karnool-AP, Kadapa-AP	210 267 205	Sea/Rail/Road
10	Ind. limestone	71,644	-37,308	34336	-	Bagalkot-Karnataka	210	Sea/Rail
11	Ind. dolomite	10,36,428	78,998	11,15,426	-	Bagalkot-Karnataka	210	Sea/Rail
12	Dolomite LCP	16,69,322	2,08,665	1877987	-	Bagalkot-Karnataka, Karnool-AP, Kadapa-AP	210 267 205	Sea/Rail/Road
13	Ind. quartz	6,87,098	59,855	7,46,953	-	Dhone-Kurnool	205	Rail/Road
14	Bentonite	88,889	47,957	1,00,000	-	Andhra/K'ta ka		Rail/Road
15	Thermal Coal	47,50,000	0	47,50,000	-	-	-	Rail
Total		5,08,85,565	54,04,843	5,62,90,408				-

43.1.9 The water requirement for the entire JSW complex is estimated as 3,01,000 m³/day which is being sourced from two sources, viz Tungabhadra Dam (32 MGD through pipeline of 35 KM) and Alamatti dam (40 MGD through a pipeline of 178 Km). Out of this total, around 1,44,000 m³/day of fresh water is required for steel plant. Additionally, around 30,000 m³/day waste water is also being recycled and used in plant process. The permission for drawl of raw water is obtained from Govt. of Karnataka vide Ltr. dated 09/11/2009.

43.1.10 The power requirement for the project is estimated as 1434 MW, which will be generated in the Captive Power Plants. The net available captive power generation capacity of JSW shall be 1051 MW (excluding future CPP5 of 660 MW). Power Purchase agreement has been signed with JSWEL for supply of balance power on 30/03/2019.

43.1.11 Baseline Environmental Studies:

Period	December 2018 to Feb 2019
AAQ parameters at 10 locations	PM _{2.5} = 31 to 59 µg/m ³ PM ₁₀ = 50 to 95 µg/m ³ SO ₂ = 9.24 to 35.6 µg/m ³ NO _x = 9.96 to 26.88 µg/m ³

	CO = 234 to 4259 $\mu\text{g}/\text{m}^3$
AAQ modelling (Max Incremental GLC)	PM ₁₀ = 15.01 $\mu\text{g}/\text{m}^3$ PM _{2.5} = 4.46 $\mu\text{g}/\text{m}^3$ SO ₂ = 14.75 $\mu\text{g}/\text{m}^3$ NO _x = 10.36 $\mu\text{g}/\text{m}^3$
Ground water quality at 15 locations	pH: 7.32 to 8.97, Total Hardness: 96 to 816 mg/l, Chlorides: 37 to 558 mg/l, Fluoride: 0.1 to 1.5 mg/l. Heavy metals are within the limits.
Surface water quality at 5 locations	pH: 7.91 to 8.72, DO: 4.8 to 6.4 mg/l, BOD: 2 to 4 mg/l,
Noise levels	45.5 to 53.7 dBA for the day time; 35.6 to 46.4 dBA for the Night time.
Traffic assessment study findings	At T1- Toranagallu-Kudithini Road, the maximum traffic volume has reached 3542 PCUs per hour. It may become necessary to regulate heavy vehicle movement to ensure that the traffic volumes do not exceed the design limits. At T2- Toranagallu - Sandur Road, Near Vidyanagar Gate the maximum traffic volume was 2716 PCUs per hour. This road is a public road and is also used by vehicles going towards Sandur – an important town of the region. At T3- Toranagallu - Hospet Road, near adjoining Toranagallu By-pass and old road is on the road leading to Bellary and Hospet. This is also a public road. However the traffic on this road has still spare capacity.
Flora and fauna	Leopard, Sloth Bear, Indian Pangolin, Python, Common Indian Monitor, Pea Fowl, Steppe Eagle, Short Toed Snake Eagle are present in 10 Km Study Area. The species are mostly confined within the Daroji sanctuary. As per specific condition no (iii) of the existing EC for expansion from 10 MTPA to 16 MTPA, JSW has to participate in the Wildlife Conservation Plan for Sloth Bears and other Schedule-I Fauna found in the study area and in the Daroji Bear Sanctuary. In 2011, Karnataka Forest Department had prepared the Management Plan for Daroji Sloth Bear Sanctuary with assistance from JSWSL and other industries in the area which includes measures for conservation and protection of Faunal species found in the sanctuary along with financial outlay for implementation of the same. With reference to PCCF and CWW Karnataka's letter no. PCCF(WL)/D /CR-64 /2020-21 dated 29/01/2021, the Management Plan of Daroji Sloth Bear Sanctuary for the period from 2020-21 to 2029-30 has been approved. JSW shall be participating in the same in the coming years. For the

	future, an amount of Rs 3 Crores has been earmarked for the same.
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43.1.12 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

Non- Hazardous Solid Wastes

Sl. No.	Type of Waste	Generation (TPD)	Mode of Utilization/ Disposal
Blast Furnace (BF)			
1	Blast Furnace Air Cooled Slag	1589	For Road making purpose as a sub base material. Currently it is used for bund construction.
2	Blast Furnace Granulated slag	16570	Selling to Cement Making Plants and as slag sand, an alternate of river sand.
3	Blast Furnace Flue Dust	817	Re-used in waste to wealth to recover Fe & C
4	Blast Furnace Sludge	272	
5	Blast furnace bag filter dust	409	Reused in micro pellet plant, further to sinter making
COREX			
6	Corex Slag(Dry Pit Slag)	150	For Road making purpose as a sub base material. Currently it is used for bund construction.
7	Corex Granulated slag	1600	Selling to Cement Making Plants and as slag sand, an alternate of river sand.
8	Corex Coal Drying Plant Coal Dust	270	Re-used in Blast Furnace for Pulverized Coal Injection (PCI).
9	Corex GCP Sludge	260	Re-used in waste to wealth to recover Fe & C
10	Corex classifier sludge	50	Reused in micro pellet plant, further to sinter making
11	Corex bag house dust	15	
Direct Reduced Iron (DRI)			
12	DRI sludge	234	Re-used in base mix further to Sinter plant.
13	Product fines	150	
14	Oxide fines	240	
Steel Melting Shop – 1,2 & 4 (BOF)			
15	Fume Extraction System(FES) Dust	67	Re-used in micro pellet plant further to sinter making
16	Mill Scale	160	Used for mill scale briquetting for further use in BOF as coolant
17	GCP sludge	979	Re-used in micro pellet plant further to sinter making
18	Ladle Furnace(LF) Slag	890	
19	BOF slag	10688	Used in micro pellet plant, blast furnace and sinter as source of flux, as scrap in BOF and bund construction

Sl. No.	Type of Waste	Generation (TPD)	Mode of Utilization/ Disposal
Steel Melting Shop - 3 (EAF & ZPF)			
20	Fume Extraction System(FES) Dust	118	Used in mill scale briquetting plant further in SMS
21	EAF/ZPF slag	2397	Used as scrap in BOF and For Road making purpose as a sub base material & for making sub base of Inter plant railway network.
22	Ladle Furnace(LF) Slag	148	Re-used in micro pellet plant further to sinter making
23	Mill scale	20	Used for mill scale briquetting for further use in BOF as coolant
24	Combustion Chamber Dust	50	
Hot Strip Mill- 1,2 &3			
25	Mill Scale	700	Used for mill scale briquetting for further use in BOF as coolant
26	Sludge	29	
Wire Rod mills			
27	Mill scale	69	Used for mill scale briquetting for further use in BOF as coolant
28	Sludge	7	Re-used in micro pellet plant further to sinter making
Bar rod mills			
29	Mill scale	102	Used for mill scale briquetting for further use in BOF as coolant
30	sludge	8	Re-used in micro pellet plant further to sinter making
Lime calcinations Plants			
31	Dolo (Dolime) Fines	288	Re-used in CRM, Corex, and Sinter Plant.
32	Lime Fines	480	
33	Bag house Fines (Lime/Dolo dust)	180	Re-used in micro pellet plant further to sinter making
Refractory:			
34	Used Refractory Bricks	170	Sold to authorized recycler
35	Refractory Dust	110	Used in bund construction
Cold Rolling Mill (CRM-1,2&3)			
36	Iron Oxide from Acid Regeneration Plant(ARP)	88	Re-used in Mill Scale Briquetting Plant & PP-2.
37	Grinding Sludge	15	Re-used in Sinter plant / Selling to Authorized Recyclers / Re-processors.
38	Magnetic Separator Sludge	11	Burning in Incinerator
39	Zinc dross	24	Selling to Authorized Recyclers/Re processor

Sl. No.	Type of Waste	Generation (TPD)	Mode of Utilization/ Disposal
40	Effluent Treatment Plant (ETP) Sludge	23	Re-used in micro pellet plant further to sinter making
Coke Ovens			
41	CDQ dust	241	Re-used in micro pellet plant further to sinter making
42	Coke breeze	526	Re-used in sinter making
43	Tar	767	Sold
44	Decanter tank sludge	3	Reused in coke oven
45	BOD sludge	6	
Captive Power Plants			
46	Bottom Ash	33	Used for bricks manufacturing
47	Fly Ash	163	Sold to Cement Making

Hazardous Solid Wastes

Sl. No	Category	Quantity (TPA)	Proposed disposal
1	Used oil	73	Disposed to auth. Reprocessor
2	Waste oil	479	Disposed to auth. Reprocessor
3	Oil soaked cotton waste	57	Incinerate
4	Waste pickled liquor	180248	Reprocessing own
5	Acid residue	490735	To be treated in ETP
6	Alkali Residue	1783051	To be treated in ETP
7	Decanter tank sludge	827	Used back in Coke oven
8	ETP Sludge	5589	Used back in PP
9	Impure sulphur	217	Disposed to TSDF
10	Oil & grease skimming residue	1944	Incinerate
11	Filter & filter material having organic compound	34	Incinerate
12	Ash from incinerator	407	used in bund
13	Discarded plastics containers	48	Disposed to auth. Reprocessor
14	Discarded MS containers	385	Disposed to auth. Reprocessor
15	Used Batteries	1740	Disposed to auth. Reprocessor
16	BOD sludge	1829	Used back in Coke oven
17	ZLD salt	504	Disposed to TSDF
18	Chrome sludge	147	Disposed to TSDF
19	Zinc dross	1395	Disposed to auth. Reprocessor

43.1.13 Public Consultation:

Details of advertisement given	<ul style="list-style-type: none"> • Prajavani (Kannada) on 07/12/2020 • The New Indian Express (English) on 07/12/2020 • E Namma Kannada Nadu (Daily local) on 10/12/2020
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Date of public consultation	08 th January, 2021 (11 am)
Venue	Proposed Project Site
Presiding Officer	Sri P. S. Manjunatha, KAS (Sr Scale), Additional Deputy Commissioner & Additional District Magistrate, Ballari District
Major issues raised	<ul style="list-style-type: none"> • Generation of Employment to Locals • Improvement in Health Care Facilities • Improving Educational Facilities • Improving the quality of life of farmers. • Development of Greenery around plant

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

Sl. No	Project/ Program	Physical Target	Year wise Progress		
			2021-22	2022-23	2023-24
Medical Facilities (Tentative Budget – Rs 35.48 Cr)					
1	Upgradation of facilities at Sanjeevani Hospital				
1.1	Phase 1 Construction of New block Construction of Café, Kitchen, Burns ICU Block Construction of Service Block	Sq. feet	48768	0	0
1.2	Renovation / Redoing of Existing Block : Phase 1	Sq. feet	13575	0	0
1.3	Phase : 2 Construction of OPD & Pharmacy Block and Development of Roads and Pathways	Sq. feet	0	20283	0
Education (Tentative Budget – Rs 0.9 Cr)					
2	Face lift and improve the facilities of the Anganwadies in DIZ villages as per need i) Painting for anganwadies ii) Repairs for building as required iii) Providing Teaching & Learning material Providing play equipment as required	No of Anganwadies	10	10	10
3	Improving the existing 8 Government Schools into model schools is being planned and approved. Need based Interventions Proposed i. Renovation of School Toilets Renovation of School building	Schools	4	2	2
Environment (Tentative Budget – Rs 4 Cr)					
4	Development of Greenery around Sultanpura village (Acres)	No of trees	5000	0	0
5	Development of Greenery in surrounding villages	No of trees Lakhs	2	2	2
6	Installation of CAAQMS station at	Nos	1	0	0

Sl. No	Project/ Program	Physical Target	Year wise Progress		
			2021-22	2022-23	2023-24
	Sultanpura – Shared by 3 industries(Nos)				
Agri Livelihoods (Tentative Budget – Rs 0.6 Cr)					
7	Excavation of farm ponds in farmer’s fields for irrigation requirements (size of farm ponds (Max Size) : 100’ *100’ * 12’	No of farm ponds	60	80	100

43.1.14 The capital cost of the project is Rs. 2857 Crores and the capital cost for environmental protection measures is proposed as Rs 324.5 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 74.8 Crores. The employment generation from the proposed project / expansion is about 3700. The details of cost for environmental protection measures is as follows:

Sn.	Description	Cost (Rs. in Crores)	
		Capital	Recurring
1.	Air Pollution Control/ Noise	154	48
2.	Water Pollution Control	52	12
3.	Solid Waste Management	9	2
4.	Environmental Monitoring and Management	2.5	0.6
5.	Occupational Health (Existing Facilities will be utilized)	0	0
6.	Rainwater Harvesting	0	1.5
7.	Energy Conservation	105	10.5
8.	Green Belt Development	2	0.2
9.	Addressal of Public Consultation concerns	40.97	0

43.1.15 Existing Greenbelt cover is 1086.2 ha (2684 Acre) which includes 2250 Acre within plant boundary which is 29 % of the plant area and 434 acre outside the plant boundary over nearby hills which forms 5.6 % of the plant area. The outside plantation was developed in consultation with Forest Department. Additionally, Greenbelt will be developed in 1 ha land within plant boundary and Gap filling plantation shall be carried out over existing greenbelt area to increase the existing plantations density. A 2m - 20m wide greenbelt, consisting of at least 3 tiers around plant boundary is 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 1600 trees per hectare. Total no. of 2,66,500 saplings will be planted and nurtured.

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

43.1.17 Name of the EIA consultant: M/s MECON Limited [Sl. No. 50, List of ACOs with their Certificate / Extension Letter no. Rev. 13, August 09, 2021].

Certified compliance report from Regional Office

43.1.18 The Status of compliance of earlier EC was obtained from Regional Office, Bangalore vide letter no. EP/12.1/2015-16/16/Kar dated 09/08/2021 in the name of M/s. JSW Steel Limited. The site visit was carried out on 28/07/2021. The Action taken report regarding the observations made during the visit was submitted to Regional officer MoEF&CC,

Bangalore vide letter dated 02/08/2021. MoEF&CC (RO), Bangalore evaluated the same and incorporated the action plan in the Final Certified Compliance report dated 09/08/2021. The details of the observations made by RO in the report dated 09/08/2021 along with its re-assessment / present status as furnished by the PP is given as below:

Sl.	Non-Compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO/Response by PP
			EC Date	Specific	General	
1.	-	Spillages and accumulation of materials along the conveyor/junction houses which causes dust pollution.	-	-	-	<p>To address the issue of spillages & emission control & management formed a committee in the month of August 2020.</p> <p>The team had audited the all Junction Houses and Conveyor Transfer Points. As per audit findings of the Committee, the major reasons are attributed to improper Sealing's & Material carry back. To address this issue,</p> <ul style="list-style-type: none"> • Conveyor seal points was implemented in 52 Junction houses (Completed) • Proposed to implement seal points in balance 24 junctions by 31/10/2021 • To address the issue of Spillages, by eliminating carry back, completed modification of 5 critical chutes at Raw Material Handling area, Blast Furnace-3 & Lime calcination Plant-2. (Completed) • Proposed to modify 5 junction houses by 31/03/2022. • To sustain above standard operating practice, had implemented 5 star rating for critical junction house through scheduled Internal Auditing.
2.	-	Damage of internal road and fugitive emission due to truck movement	-	-	-	<p>To control fugitive emission and to reduce the no of trucks carrying the iron ore o\to plant-</p> <ul style="list-style-type: none"> • JSW Steel had put up Railway line (11 KM) from Nandi Halli Stock Yard to Plant. • Also implemented Pipe Conveyor from Nandhi Halli Stock yard to Plant 24 KM (Present capacity is 5 MTPA)

Sl.	Non-Compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO/Response by PP
			EC Date	Specific	General	
						<p>due to restriction of 12 hour operation)</p> <ul style="list-style-type: none"> Proposed to enhance to 25 MTPA once approved by Forest Department. After complete commissioning of 36 MTPA, the 3000 trucks will be eliminated completely. By 31/12/2023.
3.	-	Roof Top emissions were observed from SMS-1 & 2	-	-	-	<p>To control emissions from SMS 1 & 2 Converter Primary Venturi Scrubbers and Secondary Dedusting along with Dog house were provided. Due to Process disturbance instantaneous fugitive emissions were observed from Converters.</p> <p>Following are the action plan to control Roof Top emissions-</p> <ul style="list-style-type: none"> SMS-1: Augmentation of Primary & Secondary dedusting system by 31/03/2022. SMS-2: Implementation of Secondary Dedusting. (Completed) Proposed to maximize usage of Mill scale Briquetting as coolant in SMS-1 & 2 Converter from 570 t/day 700 t/day to reduce Roof top emissions. By 30.11.2021 In SMS-2, Gas Cleaning Assistant (GCA) as a part of Primary Dedusting to control Roof Top emissions will be implemented by 31/03/2022 Augmentation of Primary dedusting systems will be implemented by 31/03/2023
4.	-	Fugitive emissions were observed from Coke Oven 4 Screen House	-	-	-	<p>This Incidence was occurred due to tripping of Compressor of Bag House during Pulsing due to problem in Instruments. Corrective action initiated and Bag House Operation was restored on the same day.</p>
5.	-	<p>Suggestions</p> <ul style="list-style-type: none"> PA should take necessary action /correction measures for prevention of 	-	-	-	<p>Shall be complied.</p>

Sl.	Non-Compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO/Response by PP
			EC Date	Specific	General	
		spillages from conveyor and junction houses within two months <ul style="list-style-type: none"> • All the accumulated dust materials due to spillage shall be removed within two months • All the damages of internal roads shall be rectified within three months. Further, the transport through trucks be gradually reduced by enhancing of capacity of pipe conveyor transport and rail transport. • Shall take required corrective measures as proposed such as primary/secondary de-dusting, Gas cleaning assistant, maximizing the usage of coolant etc at SMS within four months. 				

43.1.19 The proposal was considered by the EAC (Industry 1) in its 43rd meeting of the Re-constituted EAC (Industry-I) held on 26-27th August, 2021. The observations and recommendations of EAC is given as below:

Observations of the Committee

43.1.20 The Committee observed the following:

- i. Expansion will be carried out in the existing complex. 450 acres of land required for expansion is available within the complex, hence no additional land has been sought for the same. The capacity of fly ash pond and Gypsum storage area is also proposed to be increased. However, no details have been furnished in this regard.
- ii. As per the existing EC dated 1/10/2015, PP was supposed to develop 33% of total area as green belt. Subsequently, PP has approached the Ministry seeking amendment in the said EC to reduce the green belt to 29% of the area due to non-availability of land within the project area and requested to develop the green belt outside the project area. In this regard, Ministry is yet to take a final view in the matter as informed by the Member Secretary. Now, project proponent is proposing for expansion of steel plant in 450 acres of land available within the project area and no land has been earmarked for developing green belt in order to achieve 33% of green belt development within the project area.

Further, the tree density adopted in the 29% of the green belt developed area is reported to be less than 800 saplings per acre. In view of this, first PP should rework and optimize the project layout including the expansion project area in order to achieve 33% green belt development within project area itself with a tree density of 1000 trees per acre (or) 2500 trees per hectare. Further, PP is required to submit an action plan in this regard.

- iii. RO Compliance has been received on 9/8/2021. The non-compliances that have not been complied are related to fugitive emission control on internal roads due to spillage and installation of dedusting system in SMS 2. Action plan to comply with the said non-compliances shall be submitted.
- iv. Post expansion, the PM₁₀ and SO₂ level in the ambient is very high. Control measures to be adopted in this regard has not been enumerated in the EIA report.
- v. Authenticated map of Chief Wildlife Warden indicating the distance between the plant boundary and ESZ boundary of Daroji Bear Sanctuary has not been submitted.
- vi. Action plan to address the issues raised during the public hearing with physical target as per MoEF&CC O.M. dated 30/09/2020 has not been submitted.
- vii. As per the baseline data collected, high fluoride level is reported in ground water sample. No explanation is available in this regard and control measures to be adopted to contain the fluoride level has not been submitted.
- viii. Permission of surface water withdrawal is much higher than requirement, PP need to clarify the same.
- ix. 4 AAQ stations have been installed and one more is to be installed near Sultanpur village.

Recommendations of the Committee

43.1.21 In view of the foregoing and after detailed deliberations, the committee recommended to return the proposal in its present form to address the shortcomings enumerated at para number 43.1.20.

43.2 Expansion of existing Steel Manufacturing unit to produce Steel Bilets/ Ingots (29,500 TPA to 1,00,800 TPA) by replacing existing Induction Furnace, LRF & Concast and Round/ Flat/ Patra (78,000 TPA) by **M/s. Sharu Industries Private Limited** located at Village Nichi Mangali, Adjoining Phase- VII, Focal Point, **District Ludhiana, Punjab** [Online Proposal No. IA/PB/IND/125274/2019; File no: J-11011/345/2019- IA.II(I)] – **Environmental Clearance**– regarding.

43.2.1 M/s. Sharu Industries Private Limited has made an online application vide proposal No. IA/PB/IND/125274/2019 dated 4/08/2021 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 & nonferrous) under Category “B1” of the schedule of the EIA Notification, 2006. The project site falls within the “critically polluted areas” of Ludhiana as notified by the Central Pollution Control Board. Due to applicability of General Condition, the project falls under category ‘A’ and appraised at the Central level.

Details submitted by Project proponent

43.2.2 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord
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14/11/2019	13 th meeting of REAC held on 27-29 th November, 2019	Terms of Reference	30/01/2020
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43.2.3 The project of M/s. Sharu Industries Private Limited located in the revenue estate of Village-Nichi Mangali, adjoining Phase-VII, Focal Point Ludhiana, Punjab is for expansion of its existing steel manufacturing unit capacity by replacing the existing 2 Induction furnace (3.5 Tones/heat each) with two nos. of Induction furnaces of 12 Tons / heat capacities each along with installation of 1 no. Ladle Refining Furnace (LRF). The capacity of the unit after carrying out expansion will be 1,00,800 TPA of Steel Billets/Ingots, but there will not be any change in the production capacity of the rolling mills, which will remain as 78,000 TPA.

43.2.4 Environmental Site Settings:

SNo	Particulars	Details		
i.	Total land	5.3 Acres or 2.14483 ha		
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014.	5.3 Acres or 2.14483 ha is acquired by the company		
iii.	Existence of habitation & involvement of R&R, if any.	Nil		
iv.	Latitude and Longitude of the project site.	Corners	Latitude	Longitude
		i.	30°52'18.62" N	75°56'43.39" E
		ii.	30°52'14.36" N	75°56'51.09" E
		iii.	30°52'13.50" N	75°56'48.42" E
		iv.	30°52'13.60" N	75°56'43.30" E
		v.	30°52'14.32" N	75°56'43.29" E
		vi.	30°52'14.41" N	75°56'41.08" E
		vii.	30°52'16.12" N	75°56'41.09" E
		viii.	30°52'16.11" N	75°56'43.17" E
v.	Elevation of the project site.	254.2 m		
vi.	Involvement of Forest land if any	No forest land is involved.		
vii.	Water body exists within the project site as well as study area	Sirhind Canal approx.6.3 km Buddha Nallah approx. 6.1 km		
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil.		

43.2.5 The existing project has Consent to Operate under Air and Water act obtained from Punjab Pollution Control Board vide Ir no. CTOA/Varied/LDH4/2020/11206101 dated 23/12/2019 valid up to 30/06/2026 discharge of emissions and

CTOW/Varied/LDH4/2020/11206035 dated 23/12/2019 valid up to 30/06/2026 for Steel Ingots @ 29500 MT/Year, Round/Flat/Patra @ 78000 MT/Year. The existing unit does not require Environment Clearance under the provisions of EIA, 2006 as the capacity of the unit is less than 30,000 TPA.

43.2.6 Implementation status of the existing CTO:

Sl. No.	Product	Production as per CTO (TPA)
1	Steel Ingots/Billets	29,500
2	Round/Flat/Patra	78,000

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

Sl. No.	Name	Existing Units	Proposed Units	Total (Existing + Proposed)
		Configuration	Configuration	Configuration
1	Induction Furnace	2 X3.5 TPH (to be replaced)	2X12 TPH	2X12 TPH
2	LRF	Nil	1 No.	1 No.
3	Rolling Mill (Two Re-heating furnaces of 10 TPH capacity)	2 No.- 10 TPH each	Nil	2 No.- 10 TPH each
4	D.G. Set	2 No. (400 kVA & 65 kVA)	Nil	2 No. (400 kVA & 65 kVA)

After expansion the production details will be as under:

Product Name	Existing (TPA)	Additional (TPA)	Total (TPA)
Steel Ingots/Billets	29,500	71,300	1,00,800
Round/Flat/Patra	78,000	Nil	78,000

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

RAW MATERIAL (TPA)			
Capacity	Existing	Proposed	Total
Scrap/ Sponge Iron, Ingot/Billet, Ferro Alloys	32,450	78,430	1,10,880
Fuel for Reheating furnace (Furnace Oil & Coal)	Furnace Oil- 1 KLD Coal- 1 TPD	Nil	Furnace Oil- 1 KLD Coal- 1 TPD
Source & Transportation	From Domestic & as well as International Markets transported through covered trucks		

43.2.9 The total water requirement of the project is estimated at 37.0 KLD. Domestic water requirement is 15.0 KLD and for cooling purposes is 22.0 KLD. The daily requirement of water will be met through the Ground Water, for which permission from Punjab Water Regulation and Development Authority (PWRDA) has been obtained vide permission no. PWRDA/07/2021/L2/175 dated 29th July 2021.

43.2.10 The total power requirement for the project is estimated as 26,505 KW. The demand of electricity will be sourced via Punjab State Corporation Limited (PSPCL).

43.2.11 Baseline Environmental Studies:

Period	November to December, 2019 & January, 2020
AAQ parameters at 8 locations	PM ₁₀ = 66.3 to 115.4 µg/m ³ PM _{2.5} = 29.0 to 68.6 µg/m ³ SO ₂ = 6.2 to 12.5 µg/m ³ NO ₂ = 15.2 to 31.6 µg/m ³ CO = 0.40 to 0.60 mg/m ³
AAQ modelling (Incremental GLC)	<p><u>For PM</u></p> <ul style="list-style-type: none"> The maximum predicted GLC for 24 hourly average concentrations after the proposed expansion at site shall be 1.43 ug/m³. The maximum predicted concentration of PM₁₀ after unit operation will be 96.7 ug/m³ which is below the prescribed standard of 100 ug/m³. <p><u>For SO₂</u></p> <ul style="list-style-type: none"> The maximum predicted GLC for 24 hourly average concentrations after the proposed expansion at site shall be 2.06 ug/m³. The maximum predicted concentration of SO₂ after unit operation will be 11.86 ug/m³ which is below the prescribed standard of 80 ug/m³. <p><u>For NO₂</u></p> <ul style="list-style-type: none"> The maximum predicted GLC for 24 hourly average concentrations after the proposed expansion at site shall be 2.06 ug/m³. The maximum predicted concentration of SO₂ after unit operation will be 26.16 ug/m³ which is below the prescribed standard of 80 ug/m³.
Ground water quality at 8 locations	pH- 7.14.to 7.57 Total Hardness: 220-300 mg/l Fluorides: 1.1 to 1.20 mg/l Chlorides: 24.9 to 29.9 mg/l Total Dissolved Solids: 310-340 mg/l Heavy metals are within the limits.
Surface water quality at 2 locations	<p><u>Sirhind Canal</u></p> <ul style="list-style-type: none"> pH of the surface water collected ranged from 7.9 – 8.1 TDS was found to be 308- 346 mg/l. The tolerance limit is 1,500 mg/l as per IS:2296 Total hardness was found to be 140-150 mg/l. Dissolved oxygen is 4.8 to 5.4 mg/l. Total Coliform in water was 565-895 MPN/100ml. The likely source of bacteriological contamination may be due to the proximity to residential area All the heavy metals were not detectable. <p><u>Budha Nallah</u></p> <ul style="list-style-type: none"> pH of the surface water collected ranged from 7.49 –

	7.52
	<ul style="list-style-type: none"> TDS was found to be 142- 154 mg/l. The tolerance limit is 1,500 mg/l as per IS:2296 Total hardness was found to be 104-112 mg/l. Dissolved oxygen is 5.4 to 6.1 mg/l. Total Coliform in water was 2100-2600 MPN/100ml. The likely source of bacteriological contamination may be due to the proximity to residential area All the heavy metals were not detectable
Noise levels	Noise levels in the study vary from 50.2 dB (A) to 71.7 dB (A) in day time and 36.4 dB (A) to 67.9 dB (A) at night. The highest levels were observed at Project Site.
Traffic assessment study findings	From the traffic study, it is inferred with the proposed expansion coming into being an average 15 trucks/day each @20 ton will be added to the existing trucks. The traffic study on both sides was conducted by physical count of the vehicles for 24 hrs. From the traffic study it is observed that, there will be insignificant impact on the link road due to proposed expansion. Hence, the additional load will not impact the carrying capacity of existing road network.
Flora and fauna	No Schedule-I species were found during study period.

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

Waste	Source	Quantity	Disposal
APCD Dust	Induction Furnace	0.6 TPD	Will be sent to M/s. Madhav Alloys Ltd. for recovery of Zn metal.
Sludge from Waste Water Treatment	STP	12.6 kg/d	Composted and used as manure in horticulture.
Runner/Riser	From Rolling Mill	5.0 TPD	Reuse in production
Furnace Slag	Induction Furnace	18.0 TPD	Will be supplied to M/s Charan Kamal Tiles, Ludhiana which is manufacturers of tiles .
Used Oil	DG sets	0.06 Kl/Annum	Will be used as lubricants
MSW from every day & Domestic	Employees	126 kg/d	Will be collected in bins/ as per SWM rules 2016.

43.2.13 Public Consultation:

Details of advertisement given	25/11/2020
Date of public consultation	24/12/2020
Venue	Project site located in revenue estate of Village- Nichi Mangali, Adjoining Phase-VII, Focal Point, District-Ludhiana, Punjab.

Presiding Officer	Shri Amarjeet Bains (PCS) – Additional Deputy Commissioner (General), Ludhiana
Major issues raised	i. Employment ii. Pollution from the unit iii. Plantation

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

Sr. No	Name & address of the person	Detail of query / statement / information / clarification sought by the person present	Reply of the query / statement / information / clarification given by the project proponent	Action Plan
1.	Sh. Rajinder Singh, S/o Ranjit Singh resident of New Shimlapuri, Ludhiana.	The industry shall clarify as to whether any arrangement has been made for operation of pollution control devices regularly.	Environmental Consultant informed that operation of pollution control devices is directly linked with the operation of process i.e. they are interlinked and shall be operated simultaneously. Further, a separate energy meter is also provided on air pollution control device to know its operation.	The industry will install APCD as per norms and design by Punjab State Council for Science & Technology (PSCST). The installed APCD will be under regular maintenance. Budget: Capital cost of Rs. 50.0 lakhs and recurring cost of Rs.5.0 lakhs under EMP budget installation and maintenance of APCD.
2.	Sh. Kailash Chanda S/o G.R Sharma resident of Ludhiana.	The industry shall clarify as to whether additional plantation will be carried out in the premises.	Environmental Consultant informed that 250 trees have already been planted in the premises and additional 1750 trees shall be planted during the expansion process. The trees shall be thick canopy and same will be in consonance with the atmosphere and soil of Ludhiana.	40% of the total area will be under green belt. Budget: Capital cost of Rs. 7.0 lakhs and recurring cost of Rs.2.4 lakhs under EMP budget for green belt development. Rs. 7.0 lakhs earmarked under CER for plantation in village-Dholewal.
3.	Sh. Narindra Kumar Sharma S/o R.L. Sharma resident of Focal point, Ludhiana.	The industry shall clarify as to whether preference shall be given to local people for employment after expansion.	Environmental Consultant informed that the induction furnaces are to operate by special technical persons having experience. However, preference shall be given to local people and training shall be	The existing manpower is 300, and after expansion total manpower will be 315. Majority of the current workforce are from local area and preference will be given after expansion also.

Sr. No	Name & address of the person	Detail of query / statement / information / clarification sought by the person present	Reply of the query / statement / information / clarification given by the project proponent	Action Plan
			imparted to the persons to be employed in the industry.	
4.	Sh. Ajay Joshi S/o B.D. Joshi resident of Ludhiana.	<ol style="list-style-type: none"> The industry shall clarify as to whether there will be any generation of process water. If yes, whether it will impact the quality of ground water. The industry shall also clarify as to how the industry will control emission in the unit. 	<p>Environmental Consultant informed that there will be no generation of process water, only domestic waste water is being generated which is being treated through Septic tank. He also informed that after expansion, due to increase in the capacity of workers, due to domestic waste water shall be treated through STP. He further informed that as there is no waste water to be discharged on land, hence, water quality shall not be impacted. Environmental Consultant informed that fugitive emissions shall be trapped by fume extraction hood which will then be passed through Bag filter house. He further informed that the existing Air pollution Control Device shall be upgraded during expansion process, so that there will no pollution in the vicinity.</p>	<ol style="list-style-type: none"> STP of 15 KLD will be installed. Treated wastewater will be used for plantation purpose. Budget: Capital cost of Rs. 6 lakhs, and recurring cost of Rs. 0.5 lakhs Bag filter, fume extraction hood will be installed as APCD to control emission in the unit. Budget: Capital cost of Rs. 50.0 lakhs and recurring cost of Rs.5.0 lakhs under EMP budget installation and maintenance of APCD.

43.2.14 The capital cost of the project is Rs. 29.18 Crores including the cost of expansion (Rs. 16.74 crores) and the capital cost for environmental protection measures is proposed as Rs 110 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 6.20 Lakhs. The proposed project will provide employment to total 315 number of people. The details of cost for environmental protection measures is as follows:

S. No	Title	Capital Cost Rs. Lakh	Recurring Cost Rs. Lakh
1	Pollution Control during construction stage	5.0	---
2	Air Pollution Control (Installation of APCD)	50.0	5.0
3	Water Pollution Control/ STP up-gradation	6.0	0.50
4	Noise Pollution Control	3.0	0.30
5	Landscaping/ Green Belt Development	7.0	2.4
6	Solid Waste Management	10.0	---
7	Environment Monitoring and Management	5.0	0.10
8	Occupational Health, Safety and Risk Management	10.0	0.20
9	RWH	10.0	0.10
10	Miscellaneous	4.0	--
	TOTAL	110.0	6.20
	Budget allocated for CER activity	Rs. 17.1 Lakhs	

43.2.15 Greenbelt will be developed in 8745.35 sqmt which is about 40.01 % of the total project area. A total of 2000 trees will be planted. Nearly 250 plants already exist in the unit, another 1750 new plants required to be planted. Capital cost of Rs. 7.0 Lakhs, and recurring cost of Rs. 2.4 Lakhs/ Annum is allocated for Greenbelt Development under EMP cost.

Action plan for proposed green belt development: The proposed green belt (i.e. 1750 new saplings) will be developed in phase wise manner such as:

Phase I (June-2020): 550 numbers of saplings already planted.

Phase II (June-2021): 600 numbers of saplings will be planted and work is under progress.

Phase III (June-2022): 600 numbers of saplings will be planted.

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

43.2.17 Name of the EIA consultant: M/s Chandigarh Pollution Testing Laboratory-EIA Division [Sl. No. 99, List of ACOs with their Certificate / Extension Letter no. Rev. 13, August 09, 2021].

Certified compliance report from PCB

43.2.18 The Status of compliance of CTO was obtained from Punjab Pollution Control Board vide letter no. 325 dated on 04/03/2021. As per the report, the proponent has complied with the conditions of the existing CTO.

Observations of the Committee

43.2.19 The Committee noted the following:

- i. The EAC found that the EIA/EMP report is in order reflecting the present environmental

concerns and the projected scenario for all the environmental components arising out of the proposed project with respective mitigation measures.

- ii. The EAC also deliberated on the public hearing issues, action plan to address the issues raised during public hearing & certified compliance report from RO of Punjab Pollution Control Board (PPCB) and found it satisfactory.
- iii. PP has committed that project will switch over to Compressed Natural Gas (CNG) after 6 months and no FO will be used. Re-rolling mill shall be operated on LDO and CNG in place of FO or coal. Further, PP has also committed to develop 40% of the area towards green belt development.

Recommendations of the Committee

43.2.20 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of 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 all the stacks shall be less than 30mg/Nm³.
- ii. All roads shall be made Pucca and a vacuum cleaner shall be used to clean the roads.
- iii. Rain Water Harvesting shall be carried out as per the action plan submitted in the EIA report.
- iv. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
- v. Green Belt shall be developed in 40 % of total land with tree density of 2500 trees per ha. (or 1000 trees per acre).
- vi. 100 % solid waste generated in the facility shall be utilized as committed by the project proponent. Storage of solid waste will not be allowed for more than 90 days production.
- vii. Project site is located in Ludhiana Critically Polluted Area. Measures as proposed in the Action Plan developed by Punjab State Pollution Control Board (PSPCB) to address the environmental status for Ludhiana CPA shall be strictly implemented during construction and operation phases of the project.
- viii. Project proponent will switch over to CNG within a time frame of six months from the date of issue of EC and no Furnace Oil will be used as committed. Re-rolling mill shall be operated on LDO and CNG in place of FO and coal.

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 one Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- v. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.
- vi. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.
- vii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- viii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

- i. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- ii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- iii. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

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

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

VII. Green Belt

- i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same and also estimate carbon sequestration by the plantations.

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. Environment Management

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.
- ii. The company shall have a well laid down environmental policy duly 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; PM₁₀, SO₂, NO_x (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.

43.3 Establishment of Greenfield Steel Plant for production of 400,000 TPA Pellets, 250,000 Sponge Iron, 250,000 TPA Pig Iron or 242,500 TPA Billets / Blooms, 30,000 TPA Ferro Alloys and 16 MW Captive Power Plant along with allied facilities by **M/s. Inland Metallics** located at Vill. -Tonagatu, Tehsil -Gola, **Dist. –Ramgarh, Jharkhand** [Online Proposal No. IA/JH/IND/222454/2021; file no: IA-J-11011/297/2021-IA-II(I)] – **Prescribing for Terms of Reference**– regarding.

43.3.1 M/s. Inland Metallics has made an application online vide proposal no. IA/JH/IND/222454/2021 dated 11/08/2021 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous)

under Category “A” of the schedule of the EIA Notification, 2006 and is being appraised at Central Level.

Details submitted by Project proponent

43.3.2 The greenfield project of M/s. Inland Metallica will be located in Village – Tonagatu and Biyang Tehsil – Gola & Dulmi, Dist.-Ramgarh, Jharkhand and is for setting up of a new Steel Plant for production of 400,000 TPA Pellets, 250,000 TPA Sponge Iron, 250,000 TPA Pig Iron or 242,500 TPA Billets / Blooms, 30,000 TPA Ferro Alloys (Si-Mn) along with installation of 16 MW Captive Power Plant (WHRB Based) along with allied facilities.

43.3.3 Environmental site settings:

S No	Particulars	Details	Remarks
i.	Total land	16.18 ha [Private: 16.18 ha] Land is already in possession of the company.	Land use: agricultural land at present is not in agricultural use and will be converted for industrial use.
ii.	Existence of habitation & Involvement of R&R, if any.	No existence of habitation & involvement of R&R	-
iii.	Latitude and Longitude of the project site.	Latitude: 23°29'9.93" N Longitude: 85°39'35.21" E	-
iv.	Elevation of the project site.	383 m AMSL	-
v.	Involvement of Forest land, if any.	No involvement of Forest Land	-
vi.	Water body exists within the project site as well as study area.	Project site: No water body within the plant site area Study area: Subarnarekha River at 3.5 km in South Bhairwa Reservoir at 2.1 km in North Bhera Nadi at 2.3 km in North Senagraha Nadi – 600 m in West	-
vii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil	-

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

Sl. No.	Proposed Units	Configuration	Final Production Capacity	Product
1	Iron Ore Grinding Unit	2x0.5 MTPA	1,000,000 TPA	Iron Ore Green Balls

Sl. No.	Proposed Units	Configuration	Final Production Capacity	Product
2	Iron Ore Pellet Plant	1x0.4 MTPA	400,000 TPA	Pellets
3	Rotary Hearth Furnace	2x0.125 MTPA	250,000 TPA	DRI/Sponge Iron
4	Electric Iron Making Furnace	2x25 Ton	250,000 TPA	Hot Metal
	4a) Pig Casting M/c	1x0.25 MTPA	250,000 TPA	Pig Iron
	4b) Ladle Furnace	2x25 Ton	247,500 TPA	Liquid Steel
5	Casters	2 x (6/11, 2 strand)	242,500 TPA	Billets / Blooms
6	Submerged Arc Furnace	1x15 MVA	30,000 TPA	Ferro Alloys (Si-Mn)
7	Oxygen Plant	2x 8,250 TPA	16,500 TPA	Oxygen
8	Producer Gas Plant	5x6,000 Nm ³ /hr	30,000 Nm ³ /hr	Producer Gas
9	Captive Power Plant (WHRB)	16 MW	16 MW	Power

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

Sl. No.	Raw Materials	Quantity in TPA	Source	Transportation	
				Rail (km)	Road (km)
1	Iron Ore	10,00,000	Iron Ore belt of Joda-Barbil, Odisha	280	7.5 km (Gola Railway Siding)
2	Coal	281,500	Dhanbad, Ramgarh, Jharkhand	-	30-150
3	Charcoal / Coke	14,400	Dhanbad, Ramgarh, Jharkhand	-	30-150
4	Limestone / Dolomite	20,970	Sundergarh, Odisha	350	7.5 km (Gola Railway Siding)
5	Iron Scrap /MS Scrap	29,978	In-house + Purchased local market	-	30-150
6	Mn Ore	21,600	Barbil \ Joda \ Nagpur	200-750	7.5 km (Gola Railway Siding)
7	Low grade high silicon moil	25,950	Open Market from Nagpur \ Mumbai	200-750	7.5 km (Gola Railway Siding)
8	Fe-Mn Slag	21,600	From Local Producers Bokaro \ Ramgarh \ Giridih	-	50-150
9	Quartz	4,500	Sundergarh, Odisha	200	7.5 km

Sl. No.	Raw Materials	Quantity in TPA	Source	Transportation	
				Rail (km)	Road (km)
					(Gola Railway Siding)
10	Bentonite	7,120	From local traders of Bhuj, Gujarat	2100	7.5 km (Gola Railway Siding)
11	Electrode Paste	750	Gomia, Jharkhand	-	50-150
Total		14,28,368			
12	Furnace Oil	1000 KL	IOCL, Paradeep	490	7.5 km (Gola Railway Siding)

43.3.6 The water requirement for the project is estimated as 1202 KLD which will be met from Senegarha Nadi. Permission for the same shall be obtained from Damodar Valley Reservoir Regulatory Committee (DVRRC).

43.3.7 The power requirement for the project is estimated as 48 MW, out of which 16 MW will be sourced from Captive Power Plant and remaining will be sourced from power utility company DVC.

43.3.8 The capital cost of the project is Rs 400 Crores. The employment generation from the proposed project / expansion is 560.

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

43.3.10 Name of the EIA consultant: M/s Vardan EnviroNet [Sl. No. 38, List of ACOs with their Certificate / Extension Letter no. Rev. 13, August 09, 2021].

43.3.11 Proposed Terms of Reference (**Baseline data collection period: March to May 2021**):

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
A. Air				
a. Meteorological parameters	Temp., Relative Humidity, Wind Speed, Wind Direction, Rainfall	1 Location	24-hourly sampling for three months	Secondary data from IMD, New Delhi for the nearest IMD station
b. AAQ parameters	PM10, PM2.5, SO2, NOx, CO	8 Locations	24-hourly sampling, twice a week for 12 weeks	Monitoring Network: Minimum 2 locations in upwind side, more sites in downwind side / impact zone. All the sensitive receptors need to be covered
B. Noise	Leq (Day &	8 Locations	24-hourly	Monitoring Network:

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
	Night), Lmax (Day & Night), Lmin (Day & Night)		sampling, twice in a week (working and non-working day) for 3 months	Minimum 2 locations near to project site, more sites in impact zone, All the sensitive receptors need to be covered
C. Water				
a. Surface water quality parameters	pH, EC, NO ₃ , Na, K, Fe, Al, Ca, Cl, Cr, Mg, TDS, TSS, DO, SO ₄ , F, BOD, COD, Zn, Cu, Mn, Cd, Turbidity, Odour	8 Locations	Once in a day in each month for one season	At least one grab sample per location
b. Ground water quality parameters	pH, Ca, Cl, Mg, TDS, SO ₄ , F, NO ₃ , Fe, Al, Zn, Cu, Mn, Cd, Pb, Hg, EC, Turbidity, Odour	8 Locations	Once in a day in each month for one season	At least one grab sample per location
D. Land				
a. Soil quality	pH, Conductivity, Soil Texture, Water Holding Capacity, Cl, Ca, Na, K, Organic matter, Mg, N, Zn, Mn, Phosphorus, Pb, Cd, Cr, Cu	8 Locations	Once in a day in each month for one season	One surface sample from project site, each Agriculture, forest, water body, landfill or hazardous waste site (if applicable) and prime villages.
b. Land use	Agriculture area, Water bodies, Industrial land, Barren land, Built-up area, forest area.	10 km Radius study area	one season	Data from Global positioning system, Topo-sheets, Satellite Imageries
E. Biological				
a. Aquatic	Species of Plants and Avifauna	10 km Radius study area	one season	Secondary data to collect from Government offices, NGOs, published literature
b. Terrestrial	Species of Plants and Animals	10 km Radius study area	one season	Secondary data to collect from

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
				Government offices, NGOs, published literature
F. Socio-economic parameters	Demographic details and Occupational details	10 km Radius study area	one season	Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. agencies

43.3.12 The proposal was considered by the EAC (Industry 1) in its 43rd meeting of the Re-constituted EAC (Industry-I) held on 26-27th August, 2021. The observations and recommendations of EAC is given as below:

Observations of the Committee

43.3.13 The EAC noted the following:

- i. Plant is located 11.4 km from Ramgarh which is a severely polluted area as reported by the proponent. As per the CPCB document, entire Ramgarh District is treated as severely polluted area. PP has no record to indicate that project site is outside the boundary limits of severely polluted area.
- ii. The land is agriculture land and surrounded by agriculture fields including some pockets of farm house type settlements which PP was not able to explain.
- iii. The proposed plant shall affect the livelihood of farmers whose holdings are nearby and adjacent to the plant.
- iv. Septic tanks are proposed for treatment of domestic waste.
- v. NH23 is 8.1 Km and local road is 1.21 km from site. There is no mention about the ownership of approach road of 1.21 Km from the state road to the plant.
- vi. SiMn shall be manufactured in 15 MVA SAF. The furnace type (closed or open) has not been described.
- vii. Phenolic water treatment and disposal mechanism has not been described in the proposal.
- viii. Pre-feasibility report is very sketchy and does not provide details required to analyze pollution potential of the proposal.

Recommendations of the Committee

43.3.14 In view of the foregoing and after deliberations, the Committee opined that proposed site is not environmentally compatible for setting up the steel plant and recommended to return the proposal in its present form to address the shortcomings listed at paragraph number 43.3.13.

43.4 Integrated Cement Plant for Cement Clinker capacity of 3.3 MTPA and Cement 2.0 MTPA along with power generation of 17 MW by WHRS by **M/s. Star Cement Lumshnong Limited** located at village Lumshnog, Tehsil Kheliehriat, **District East Jaintia Hills,**

Meghalaya [Online Proposal No. IA/ML/IND/219323/2021; File no: IA-J-11011/277/2021-IA-II(I)] – **Prescribing for Terms of Reference**– regarding

43.4.1 M/s. Star Cement Lumshnong Ltd. has made an application online vide proposal no. IA/ML/IND/219323/2021 dated 07/08/2021 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(b) Cement plants under Category “A” of the schedule of the EIA Notification, 2006 and attracts general conditions due to Narpuh Wildlife Sanctuary that falls within a 5 km radius of the plant site being appraised at Central Level.

Details submitted by Project proponent

43.4.2 The project of M/s. Star Cement Lumshnong Ltd is located in Lumshnong Village, Khliehriat, East Jaintia Hills, Meghalaya is for setting up of a new Integrated Cement Plant with Cement Clinker capacity of 3.3 MTPA & Cement 2.0 MTPA with 17 MW WHRS.

43.4.3 Environmental site settings:

SNo	Particulars	Details	Remarks
i.	Total Land	45 ha (Private land)	The land use will be changed from scrubland to build up land. The existing vegetation will be cleared.
ii.	Existence of habitation & involvement of R&R, if any.	Not applicable	
iii.	Latitude and Longitude of the project site	Latitude: 25°10'5.51"N to 25°10'45.04"N, Longitude: 92°22'20.87"E to 92°23'55.83"E	
iv.	Elevation of the project site	Maximum elevation-528 m AMSL Minimum elevation-381 m AMSL	
v.	Involvement of Forest land if any.	No Forest land is involved.	
vi.	Water body exists within the project site as well as study area	There is no water body present within the study area. Study area Umtyrngai Nallah (Ephemeral)- Adjacent to the plant premises -2.76 Km East Um Lunar River(Perennial)- 4.5 Km South Lubha River-5.97 Km NW	The elevation of the Umlunar river is 70 m AMSL. However, the minimum elevation of the proposed cement plant is 381 m AMSL.
vii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere	Study area Narpuh Wildlife Sanctuary-4 km SE	

SNo	Particulars	Details	Remarks
	reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Eco Sensitive Zone of Narpuh Wildlife Sanctuary- 2.56 Km SE Narpuh Reserve Forest- 9 Km SE	

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

S.No.	Name	Proposed Units	
		Configuration	Production
1	Cement Clinker	Raw Mill (VRM)-725 TPH Coal Crusher- 150 TPH Coal Stacker-150 TPH Coal reclaimer-125 TPH Coal Mill (VRM)-70 TPH Pre-heater (Twin stream) Kiln-3.3 MTPA Cement Clinker-3.3 MTPA Cooler- 3.3 MTPA	3.3 MTPA
2	Cement	Gypsum Crusher-12 TPH Cement Mill(VRM)-285 TPH Packer- 2*240 TPH	3.3 MTPA
3	Waste Heat recovery Power Plant	Turbine Inlet 75 TPH HP Steam 20 TPH LP Steam	17 MW

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

S. No.	Name of Raw Material	Raw Material Quantities		Source	Distance & Mode of Transportation
		Quantity (TPD)	Quantity (MTPA)		
1.	Limestone	12920	4.26	Own Mines	1.5 km Belt Conveyor/ 2 Km, Road
2.	Shale	2280	0.75	Own Mines	3 - 7.0 km, Road
3.	Mill Scale/ Iron ore / Laterite	152	0.05	Guwahati	230 km, Road
4.	Coal / Petcoke (Fuel)	1212	0.4	Mines located at Wapung/ Margherita/ Ranigunj/ Imported coal Imported/Indian Refinery	26 km 615 km 1151 km Rail/Road
5.	Gypsum	13.2	0.04	Mineral Gypsum from	300 km

S. No.	Name of Raw Material	Raw Material Quantities		Source	Distance & Mode of Transportation
		Quantity (TPD)	Quantity (MTPA)		
				Bhutan Chemical gypsum from plants such as Paradeep Phosphates	1600 km

43.4.6 The total water requirement for the project is estimated as 2262 KLD (including treated water of 112 KLD). Out of which, freshwater (make up water) is 750 KLD. Out of 2262 KLD, 1000 KLD will be required in the cement plant, 1000 KLD in WHRB and 150 KLD for domestic purposes. The total water requirement will be sourced from the surface water from Utryangai nallah. Permission for drawl of surface water has been applied.

43.4.7 The power requirement for the proposed plant has been estimated at about 34.20 MW. About 17 MW (17.89 MVA) will be from WHRS and the balance 17.2 MW (18.11 MVA) will be sourced from a subsidiary power plant of Meghalaya Power Ltd., (MPL)/ Grid Power.

43.4.8 The total cost of the project is Rs 1900 Crores, out of which the capital cost for Environment protection measures is Rs 80 Crores and recurring cost is Rs 8.0 crores per annum. The employment generation from the proposed project is 176.

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

43.4.10 Name of the EIA consultant: M/s Perfect Enviro Solutions Pvt. Ltd. [Sl. No. 9, List of ACOs with their Certificate / Extension Letter no. Rev. 13, August 09, 2021]

43.4.11 Proposed Terms of Reference (**Baseline data collection period: December 2020-February 2021**):

Attributes	Sampling		Remarks
Monitoring	No. of stations	Frequency	
A. Air	09 stations selected for monitoring.	6 monthly	Daily monitoring will also be done through an online monitoring system.
a. Meteorological parameters	Temperature, Wind speed, Wind direction, humidity, rainfall		--
b. AAQ parameters	PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ , CO		
c. Air emission	Primary crusher, Raw mill, coal mill, Kiln cooler, Packing unit, DG set PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ , CO		Daily monitoring will also be done through an online stack monitoring system.

Attributes	Sampling		Remarks
	Monitoring	No. of stations	
B. Noise (Leq (night), Leq (day), Leq (24 hourly))	10	6 monthly	--
C. Water	5 stations for Ground water & 2 Surface water	6 monthly	--
Surface water/Ground water quality parameters	Monitoring for relevant parameters as per drinking water standard IS – 10500		--
D. Land		6 monthly	--
a. Soil quality b. Land use	09 stations Qualitative and Quantitative Parameters to check soil fertility		--
E. Biological a. Aquatic b. Terrestrial	Flora and fauna	6 monthly	--
F. Socio-economic parameters	Cost spent and where it is Demographic details and Occupational details	6 monthly	--

43.4.12 The proposal was considered by the EAC (Industry 1) in its 43rd meeting of the Re-constituted EAC (Industry-I) held on 26-27th August, 2021. The observations and recommendations of EAC is given as below:

Observations of the Committee

43.4.13 The EAC noted the following:

- i. Terms of Reference is being sought for undertaking EIA study for the green field 2.0 MTPA Cement and 3.3 MTPA Clinker plant at Lumshnang Village in Meghalaya.
- ii. Plant is being set up adjacent to another 0.99 MTPA cement plant and there are lot of common facilities and overlapping of land between the two plants i.e. with existing and proposed plants. Boundaries of two plants are not clear.
- iii. Narpuh Wildlife Sanctuary is only 4 Km from the plant. ESZ of WLS is 2.56 Km from site.
- iv. Details of trees to be cut for establishment of the new plant have not been provided.
- v. Captive LS mines are @ 1.5 Km and LS shall be transported to site by closed conveyor. It is not clear if there would be common conveyor for both the plants i.e. the existing and proposed plant.
- vi. Plant site is not contiguous.
- vii. NH4 is south of the plant is only 100 m away from the palnt site.
- viii. Land use of previous EC would change due to the encroachment from new plant.

- ix. These two plants are not independent. Both belong to same proponent. Boundary of the plants is common. Prima facie the instant proposal appears to be a case of expansion.

Recommendations of the Committee

43.4.14 In view of the foregoing and after detailed deliberations, the Committee recommended to return the proposal in its present form due to the overlapping of the land use between the two plants, use of common facilities and engineering plant layout of the plant do not provide clarity, whether the plant is expansion of the existing plant or a new green field project in order to take an appropriate view in the matter.

43.5 Greenfield Integrated Steel Plant with capacity of 1.0 MTPA along with power generation of 65 MW (20 MW: WHRB & 45 MW: AFBC), Oxygen plant: 250 TPD land Fly Ash Bricks Plant of 2 Crore Bricks per Annum by **M/s. Shri Bajrang Steel Corporation Limited** located at Village Jalso, Tehsil Tilda, **Dist Raipur, Chhattisgarh** [Online Proposal No. IA/CG/IND/223051/2021; file no: IA-J- 11011/304/2021-IA-II(IND-I)] – **Prescribing for Terms of Reference– regarding.**

43.5.1 M/s. Shri Bajrang Steel Corporation Limited has made an application online vide proposal no IA/CG/IND/223051/2021 dated 05/08/2021 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category “A” of the schedule of the EIA Notification, 2006 and is being appraised at Central Level.

Details submitted by Project proponent

43.5.2 The greenfield project of M/s. Shri Bajrang Steel Corporation Limited located at Village Jalso, Tehsil Tilda, District Raipur, Chhattisgarh is for setting up of Integrated Steel Plant with capacity of 1.0 MTPA along with sponge iron 0.33 MTPA (DRI Kiln - 2 x 500 TPD), power generation of 65 MW (20 MW: WHRB & 45 MW: AFBC), Oxygen plant: 250 TPD land Fly Ash Bricks Plant of 2 Crore Bricks per Annum.

43.5.3 Environmental site settings:

S.N	Particulars	Details	Remarks
i	Total land	60.71 ha [Private: 44.68 ha; Govt. 16.03 ha] [Agriculture Land : 44.68 ha and Grazing Land: 16.03 ha]	Land use: Mix (Agriculture / Dry Land) Out of 44.68 ha Private land, 15.17 ha is in possession of the company and for 29.51ha, Purchase is in progress on mutual agreement basis. Company has applied for allotment of 16.03 ha government land.

S.N	Particulars	Details	Remarks
ii	Existence of habitation & involvement of R&R, if any	Nil	-
iii	Latitude and Longitude of the project site	Latitude: 21°28'10.48"N - 81°48'1.96"E Longitude: 21°28'48.01"N - 81°47'46.55"E	-
iv	Elevation of the project site	290 m AMSL.	-
v	Involvement of Forest land if any.	No Forest Land is Involved.	-
vi	Water body exists within the project site as well as study area	<u>Project site:</u> None <u>Study area</u> Kirna tank: 1.0 Km (SSW) Jamuniya Nadi: 3.5 Km (ENE) Dhumma Nala: 1.5 Km (W) Kirna Tank: 1.0 Km (SW) Pindraon Tank: 7.0 Km Mahanadi Canal: 1.0 Km (NW) Krishna Irrigation Chennal – 1.1 km – WNW Shivnath River -15.5 Km- NW	-
vii	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	Nil	-

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

S. No	Name	Proposed Units	
		Configuration	Production TPA
1.	Sponge Iron	(2 x 500 TPD)	3,30,000 TPA
2	Steel Melting Shop EOF-LRF with slab/billet caster	(2 x 0.55 MTPA) (2X65T EOF with 24.5 heat /per day per EOF & 2X65 T LRF)	11,00,000 TPA
3	Hot Strip Mill, Flat Products (HR Coil/MS)	Hot Strip MILL	10,00,000 TPA

S. No	Name	Proposed Units	
		Configuration	Production TPA
	Plate)/Long Products		
4	Power Generation (65 MW)	CPP { WHRB - 20 MW and Coal based Power plant (AFBC/CFBC) - 45 MW }	65 MW
5.	Oxygen Plant	Oxygen Plant	250 TPD
6.	Fly Ash Brick plant	Fly Ash Brick plant	2,00,00,000 Nos per annum

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

S. No.	Raw Materials (Input)	Quantity (TPA)	Source	Distance KM	Mode of Transportation
Sponge Iron 3,30,000 TPA					
1	Pellet	4,78,000	From Interlink proposed adjacent project of SBPIL (Parent Company)	1.3	Tipplers
2	Coal	2,80,500	SECL	200	By Rail/Road
3	Dolomite	13,200	Mandla	250	By Road
Steel Melting Shop 11,00,000 TPA					
4	Pig Iron/Hot Metal	10,16,684	From Interlink proposed adjacent project of SBPIL (Parent Company)	0.3	Through Laddle
5	DRI	1,19,610	Captive Plant	-	Conveyor Belts/ Tipplers
6	Scrap	59,804	Captive Plant	-	Tipplers
7	Fluxes	63,118	Open Market	-	By Road
8	Ferro Alloys	15,780	From Interlink proposed adjacent project of SBPIL (Parent Company)	1.2	Tipplers
Rolling Mill 10,00,000 TPA					
9	Semi-Finished Product (Slab/Billet)	10,30,930	Captive Plant / Open Market	-	Conveyor Belts/Rollers/ Tipplers
10	Furnace Oil (Alternate Fuel)	2164 (KL)	IOCL, Bhilai	50	By Road /By Rail
Power Plant AFBC/CFBC -45 MW					
11	Coal	3,06,500	SECL	200	By Rail/Road

S. No.	Raw Materials (Input)	Quantity (TPA)	Source	Distance KM	Mode of Transportation
12	Dolochar	49500	Captive		By Tipplers
Fly Ash Bricks - 2 crore Bricks Per Annum					
13	Fly Ash	42,000	Captive	-	By Road
14	Lime	3,000	Open Market		By Road
15	Gypsum	3,000	Open Market		By Road
16	Bottom Ash	6,000	Captive		By Road
17	Slag	6,000	Captive	-	By Road

- 43.5.6 The total water requirement for the project is estimated as 11756 KLD, which will be obtained from the river Shivnath. The application for drawl of surface water is submitted to Water Resources Department vide Lr. NoWA00054 dated 01/07/2021.
- 43.5.7 The power requirement for the project is estimated as 69 MW, out of which 65 MW will be obtained from the captive power plant and remaining 4 MW will be obtained from CSPDCL.
- 43.5.8 The capital cost of the project is Rs. 1,465 Crores and the capital cost for environmental protection measures is proposed as Rs. 146.5 Crores. The employment generation from the proposed project is 2500 Nos.
- 43.5.9 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.
- 43.5.10 Name of the EIA consultant: M/s Pollution & Ecology Control Services [Sl. No. 73, List of ACOs with their Certificate / Extension Letter no. Rev. 13, August 09, 2021]
- 43.5.11 Proposed Terms of Reference (**Baseline data collection period: March to May 2021**)

Attributes	Parameter	Sampling		Remarks
		No. of stations	Frequency	
A. Air				
a. Meteorological parameters	Temperature, Relative Humidity, Rainfall, Wind Speed, Wind direction	01	Continuously 24 hrs once for 13 weeks during study period.	-
b. AAQ parameters	PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO	09	Continuously 24 hrs once for 13 weeks during study period.	-
B. Noise	L _d , L _n & L _{dn}	09	Continuously 24 hrs once during study period.	-
C. Water				

Attributes	Parameter	Sampling		Remarks
		No. of stations	Frequency	
Surface water/Ground water quality parameters	Parameters as per IS-10500:2012 and IS-2490:1982	08 Surface Water & 08 Ground Water	Once during study period.	-
D. Land				
a. Soil quality	Parameters as per Indian Agricultural Research Institute Handbook	08	Once during study period.	-
b. Land use	Land use and land Cover	Study Area	Once during study period.	-
E. Biological				
a. Aquatic	Flora and Fauna	Random sampling/Quadrat Method	Once during study period.	-
b. Terrestrial				-
F. Socio-economic parameters	Socio-economic Status in Study area	Field survey through questionnaire, group discussion and random Sampling in the study area.	Once during study period.	-

Observations of the Committee

43.5.12 The EAC noted the following:

- i. There are two projects which are proposed to be set up in the project site by the proponent in the name of M/s. Shri Bajrang Power and Ispat Limited and M/s. Shri Bajrang Steel Corporation Limited located adjacent to each other. The ToR for M/s. Shri Bajrang Power and Ispat Limited was accorded on 30/03/2021. Instant proposal is for seeking ToR for undertaking EIA study for green field proposal of M/s. Shri Bajrang Steel Corporation Limited.
- ii. Both projects are interrelated and shall be totally dependent on each other for raw materials, intermediate products, power, fuel and utilities. In fact, both projects together make up one self-supporting project.
- iii. The scope includes setting up of 2x500 TPD DRI plant, Dolo char of which will go to another unit explained above: 2x65 T EOF and LRF that will receive hot metal from another company; Waste heat recovery of 20 MW from DRI should be 25 MW; HSM of 1 MTPA that would receive fuel as BF Gas from another unit as mentioned above; AFBC of 45 MW, the ash of which will be used in two brick manufacturing plants one in each company. Phenolic water from other company shall be brought to this unit for treatment.
- iv. Proposed plots have lots of roads passing through it. No details are available regarding diversion of these roads.

- v. Hot charging has not been proposed.
- vi. 11756 KLD water shall be drawn from Sheonath river and the water requirement of 15197 KLD for the other plant shall also be draw from Sheonath River. Both plants have the same source.
- vii. PP has confirmed that two independent pump houses and two independent pipe lines shall be installed to bring water from Sheonath River to these plants.
- viii. Nearest Railway siding is 3 km from site at Baikunth and the traffic from both plants is by road. The optimization of traffic load and traffic logistics cannot be managed in environment friendly manner for two independent companies.
- ix. Nakti Khapri Village is 200 m NE from site. Kirna tank is 1.0 km from other project. HSS school is 1.5 km from plant
- x. Only 60000 TPA of ash shall be used in their brick plant. For disposal of balance ash, the PP will depend on outside market or else they will store it inside the plant. No separate dump yard is proposed.
- xi. SMS slag is proposed to be sent to land fill. Details of Fly ash management are not available.

Recommendations of the Committee

- 43.5.13 In view of the foregoing and after deliberations, the Committee recommended to return the proposal in its present form to address the following shortcomings:
- i. Detailed report on risks associated with inter-company transport of raw materials, semi- finished products, wastes and utilities.
 - ii. Disaster Management Plan (DMP) for potential interface risks (where no factory manager is responsible) associated.
 - iii. Impact on over all Carbon Foot prints compared to ISP proposed in Feb 2021 and the two companies now proposed.
 - iv. Impact of Energy Consumption for scenario mentioned in point # 3 above.
 - v. Integrated solid waste management including the area proposed for waste dumping as envisaged in the proposal.
 - vi. Detailed Engineering layout of both plants showing roads, gates, width of roads and green belt.
- 43.6 Establishment of Sponge Iron unit (2,25,000 TPA), Induction Furnace with matching LRF & CCM (Billets / Ingots / Hot Billets) (2,40,000TPA), Rolling Mill (TMT Bars / Structural Steel) (2,25,000 TPA), Brick manufacturing unit – 25,000 bricks/day, WHRB based Power Plant – 18 MW (3x6 MW), AFBC based Power Plant - 6 MW by **M/s. ITECHC Metals Private Limited** located at Village Chicholi, Tehsil Kharora, **District Raipur, Chhattisgarh** [Online Proposal No. IA/CG/IND/223683/2021; File no: IA-J-11011/290/2021-IA-II(I)] – **Prescribing for Terms of Reference**– regarding.
- 43.6.1 M/s. ITECHC Metals Private Limited has made an application online vide proposal no. IA/CG/IND/223683/2021 dated 7th August, 2021 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToR for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category “A” of the schedule of the EIA Notification, 2006 and is appraised at the Central level.

Details submitted by Project proponent

43.6.2 The greenfield project of M/s. ITECHC Metals Private Limited is located at Khasra no.s 587/1, 587/6, 587/10, 587/14, 597/1, 597/3, 598, 599, 600, 612, 613/1 & 613/2, Chicholi Village, Kharora Tehsil, Raipur District, Chhattisgarh for setting up of new Steel Plant including establishment of Sponge Iron unit (2,25,000 TPA), Induction Furnace with matching LRF & CCM (Billets / Ingots / Hot Billets) (2,40,000TPA), Rolling Mill (TMT Bars / Structural Steel) (2,25,000 TPA), Brick manufacturing unit – 25,000 bricks/day, WHRB based Power Plant – 18 MW (3x6 MW), AFBC based Power Plant - 6 MW.

43.6.3 Environmental site settings:

S.No.	Particulars	Details	Remarks																																																			
i.	Total Land	12.19 Ha. (30.12 Acres) [Agriculture land (unirrigated)–11.346 Ha. (28.035 Acres.) & Govt. land – 0.843 Ha. (2.083 Acres.)]	Land Use: Unirrigated Agriculture land Agreements have been entered for 11.346 Ha. & request letter submitted to State Govt. for allotment of 0.843 Ha. of govt land for 99 years lease.																																																			
ii.	Existence of habitation & involvement of R & R, if any	No habitation exists in project site; Hence no R & R is involved.	---																																																			
iii.	Latitude and Longitude of the project site	Latitude and Longitude of the project site: <table border="1"> <thead> <tr> <th>Point</th> <th colspan="2">Coordinates</th> </tr> </thead> <tbody> <tr><td>Point # 1</td><td>21° 27' 44.27" N</td><td>81° 52' 16.93" E</td></tr> <tr><td>Point # 2</td><td>21° 27' 41.51" N</td><td>81° 52' 21.95" E</td></tr> <tr><td>Point # 3</td><td>21° 27' 42.39" N</td><td>81° 52' 23.94" E</td></tr> <tr><td>Point # 4</td><td>21° 27' 44.43" N</td><td>81° 52' 24.05" E</td></tr> <tr><td>Point # 5</td><td>21° 27' 45.59" N</td><td>81° 52' 22.23" E</td></tr> <tr><td>Point # 6</td><td>21° 27' 45.59" N</td><td>81° 52' 26.53" E</td></tr> <tr><td>Point # 7</td><td>21° 27' 46.75" N</td><td>81° 52' 26.87" E</td></tr> <tr><td>Point # 8</td><td>21° 27' 41.40" N</td><td>81° 52' 28.91" E</td></tr> <tr><td>Point # 9</td><td>21° 27' 41.84" N</td><td>81° 52' 30.34" E</td></tr> <tr><td>Point # 10</td><td>21° 27' 43.66" N</td><td>81° 52' 29.79" E</td></tr> <tr><td>Point # 11</td><td>21° 27' 44.49" N</td><td>81° 52' 33.21" E</td></tr> <tr><td>Point # 12</td><td>21° 27' 47.52" N</td><td>81° 52' 33.66" E</td></tr> <tr><td>Point # 13</td><td>21° 27' 49.12" N</td><td>81° 52' 33.44" E</td></tr> <tr><td>Point # 14</td><td>21° 27' 48.96" N</td><td>81° 52' 32.00" E</td></tr> <tr><td>Point # 15</td><td>21° 27' 51.94" N</td><td>81° 52' 31.78" E</td></tr> <tr><td>Point # 16</td><td>21° 27' 55.59" N</td><td>81° 52' 21.6" E</td></tr> </tbody> </table>	Point	Coordinates		Point # 1	21° 27' 44.27" N	81° 52' 16.93" E	Point # 2	21° 27' 41.51" N	81° 52' 21.95" E	Point # 3	21° 27' 42.39" N	81° 52' 23.94" E	Point # 4	21° 27' 44.43" N	81° 52' 24.05" E	Point # 5	21° 27' 45.59" N	81° 52' 22.23" E	Point # 6	21° 27' 45.59" N	81° 52' 26.53" E	Point # 7	21° 27' 46.75" N	81° 52' 26.87" E	Point # 8	21° 27' 41.40" N	81° 52' 28.91" E	Point # 9	21° 27' 41.84" N	81° 52' 30.34" E	Point # 10	21° 27' 43.66" N	81° 52' 29.79" E	Point # 11	21° 27' 44.49" N	81° 52' 33.21" E	Point # 12	21° 27' 47.52" N	81° 52' 33.66" E	Point # 13	21° 27' 49.12" N	81° 52' 33.44" E	Point # 14	21° 27' 48.96" N	81° 52' 32.00" E	Point # 15	21° 27' 51.94" N	81° 52' 31.78" E	Point # 16	21° 27' 55.59" N	81° 52' 21.6" E	---
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iv.	Elevation of the project site	MSL of the Project area – 305 m to 314 m	---																																																			
v.	Involvement of Forest land, if any	No Forest land is involved in the project site.	---																																																			
vi.	Water body exists within the project site as well as study area	Project site: <table border="1"> <thead> <tr> <th>Water Body</th> <th>Distance</th> </tr> </thead> <tbody> <tr> <td>Nil</td> <td>NA</td> </tr> </tbody> </table>	Water Body	Distance	Nil	NA	---																																															
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Branch Mahanadi canal	4.8 Kms – South West Direction												
Kirna Tank	7.7 Kms. - West Direction												
vii.	Existence of ESZ/ESA/National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. if any within the study area	Nil	---										
viii.	Forest within the study area	Mohrenga PF (S) : 0.5 kms Khaulidabri PF (SE) : 3.0 Kms	--										

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

S.No.	Facilities	Plant Configuration	Production Capacity	Product
1.	DRI Kilns	3 x 250 TPD	2,25,000 TPA	Sponge Iron
2.	Induction Furnace	4 x 20 T	2,40,000 TPA	Hot Billets / Billets / Ingots
3.	Rolling Mill	750 TPD	2,25,000 TPA	TMT bars / Structural Steel (85% Hot charging with Hot Billets and remaining 15% through RHF with LDO as fuel)
4.	Brick manufacturing unit	25,000 bricks/day		
5.	Power Plant	WHRB 18 MW (3 x 6 MW)	Total = 24 MW	
	AFBC	6 MW (1 x 6 MW)		

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

S.No.	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
1.	For DRI Kilns (Sponge Iron) – 2,25,000 TPA				
a)	Pellets (100 %)	3,37,500	purchased from	~ 50 Kms	Through covered

S.No.	Raw Material		Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
				outside		conveyers & By road (through covered trucks)
	or					
b)	Iron ore (100%)		3,60,000	Barbil, Orissa NMDC, Chhattisgarh	~ 500 Kms.	By rail & road (through covered trucks)
c)	Coal	Indian	2,92,500	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)
		Imported	1,87,200	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)
d)	Dolomite		11,250	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)
2.	For Steel Melting Shop (Billets/ Ingots/Hot Billets) – 2,40,000 TPA					
a)	Sponge Iron		2,42,000	Own generation & purchased from outside	~ 20 Kms.	Through covered conveyers & by road
b)	MS Scrap / Pig Iron		36,000	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)
c)	Ferro alloys		12,000	Raipur	~ 50 Kms.	By road (through covered trucks)
3.	For Rolling Mill through Hot charging (Rolled Products) – 2,25,000 TPA					
a)	Hot Billets / Billets / Ingots		2,40,800	Own generation & purchased from outside	~ 20 Kms.	By Road (through covered trucks)
b)	LDO / LSHS		10,000 KI/annum	Nearby IOCL Depot	~ 100 Kms.	By road (through Tankers)
4.	For FBC Boiler [Power Generation 6 MW]					
a)	Indian Coal (100 %)		40,500	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)
	OR					
b)	Imported Coal (100 %)		25,961	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)
	OR					
c)	Dolochar	Dolochar	45,000	In plant	---	through covered

S.No.	Raw Material		Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
	+ Indian Coal	Indian Coal	18,000	generation SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	conveyors By rail & road (through covered trucks)
OR						
d)	Dolochar + Imported Coal	Dolochar Indian Coal	45,000 11,520	In plant generation Indonesia / South Africa / Australia	--- ~ 600 Kms. (from Vizag Port)	through covered conveyors Through sea route, rail route & by road (through covered trucks)

43.6.6 Water required for the proposed project will be 1130 KLD which will be sourced from Kumhari tank which is at a distance of 2.8 Kms. from the project site. State Investment Promotion Board, Chhattisgarh vide letter No. 985/SIPB/2021/730 dated 06/08/2021 has forwarded recommendations to Water Resources Department for issuing approval for withdrawing water from Kumhari tank.

43.6.7 Power required for the proposed project will be 33.7 MW and same will be sourced from Captive Power Plant (24.0 MW) and remaining (9.7 MW) from State CECB Grid.

43.6.8 The capital cost of the project is Rs. 435 Crores. Employment generation from proposed project will be 700 nos. through direct employment and 500 nos. through indirect employment.

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

43.6.10 Name of the EIA consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [Sl. No. 133, List of ACOs with their Certificate / Extension Letter no. Rev. 13, August 09, 2021].

43.6.11 Proposed Terms of Reference (**Baseline data collection period: 1st March 2021 to 31st May 2021**):

Attributes	Sampling		Remarks
	No. of Stations	Frequency	
A. Air			
a. Meteorological parameters	1	On hourly basis for one season	<ul style="list-style-type: none"> • Wind Speed • Wind Direction • Temperature • Relative Humidity • Rainfall
b. AAQ parameters	9	24 hourly Twice a week for 3 months	Parameters monitored: <ul style="list-style-type: none"> • PM_{2.5}

Attributes	Sampling		Remarks
	No. of Stations	Frequency	
		(One Season)	<ul style="list-style-type: none"> • PM₁₀ • SO₂ • NO_x • CO
B. Noise	8	On hourly basis for 24 Hrs. at each station	Parameters monitored: <ul style="list-style-type: none"> • Day equivalent • Night equivalent
C. Water			
a. Ground Water	8	One sample at each of the locations	Parameters monitored: as per IS: 10500
b. Surface Water	3	One sample at each of the locations	Parameters monitored: as per BIS: 2296
D. Land			
a. Soil quality	8	One sample at each of the locations	Parameters monitored: Texture, infiltration rate, SAR bulk density, pH, Ca, Mg, Na, K, Zn, Mn
b. Land use	--	--	LU map prepared by concerned FAE for study area
E. Biological			
a. Aquatic	--	Once in Season	---
b. Terrestrial	--	Once in Season	---
F. Socio economic parameters	--	Once in Season	Social Impact Assessment carried out by concerned FAE for study area
G. Traffic Density	--	Once in Season	Vehicular traffic study carried out at Transportation route.

Observations of the Committee

43.6.12 The EAC noted the following:

- i. Terms of Reference (ToR) is being sought for undertaking EIA study for a green field steel plant of 240000TPA billet production at Chicholi, Raipur, Chhattisgarh.
- ii. The scope includes setting up of 3x250 TPD Direct Reduced Iron (DRI) kilns; 4x20T Induction Furnace(IF); 750 TPD Rolling Mill (RM); 25000 Nos bricks per day and 18 MW AFBC and 6 MW AFBC.
- iii. Total land available is 30.12 Acres. The land is reported as unirrigated agriculture land.
- iv. 1130KLD water shall be sourced from Kumhari Tank located at 2.8 Km from site.
- v. Hot charging shall be practiced. RHF shall operate on LDO/LSHS.
- vi. Raw Materials from Baikunth/Tilda shall be transported 13-15 km by road. 120 trucks are expected to handle in and out traffic.
- vii. Air Cooled condensers shall be used.
- viii. Mohrenga PF is only 500 m and Khanlidanbri PF is 3.0 Km from site.
- ix. Adani GMR power plant is 1.5 Km from site.

Recommendations of the Committee

- 43.6.13 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. The Project Proponent shall submit action plan for reuse/ recycling of entire wastewater after treatment.
 - ii. Action plan to limit the dust emission from all the stacks below 30 mg/Nm³ shall be furnished.
 - iii. Action plan for fugitive emission control in the plant premises shall be provided.
 - iv. Action plan for green belt development covering 33% of the project area shall be submitted. This shall include 50 m green belt development inside the project area towards Mohrenga PF and 30m green belt development shall be provided between provided between plant site and Gaurkhera village.
 - v. Action plan for 100 % solid waste utilization shall be submitted.
 - vi. Action plan for rain water harvesting shall be submitted.
 - vii. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
 - viii. Air Cooled condensers shall be used in Captive Power Plant.

27th August, 2021

43.7 Proposed Greenfield Cement Plant of capacity 2.0 MTPA clinker and 3.0 MTPA Cement, 7 MW Waste Heat Recovery Plant and 43 MW Thermal Power Plant by **M/s. Nuvoco Vistas Corp. Limited** located at Village Ruvur, Taluka Chittapur, **District Kalaburgi, Karnataka** [Online Proposal No. IA/KA/IND/118234/2019, File No. J- 11011/306/2019-IA.II(I)] –**Environment Clearance**– regarding.

43.7.1 M/s. Nuvoco Vistas Corp. Limited has made an online application vide proposal no. IA/KA/IND/118234/2019 dated 11/08/2021 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(b) Cement Plants 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by Project proponent

43.7.2 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord
17 th September, 2019	12 th meeting of EAC held on 21-23 rd October, 2019	Terms of Reference	11 th December, 2019

43.7.3 The project of M/s. Nuvoco Vistas Corp. Limited located in Village Ruvur, Taluka Chittapur, District Kalaburgi, Karnataka State is for Proposed Greenfield Cement Plant of capacity 2.0 MTPA clinker and 3.0 MTPA Cement, 7 MW Waste Heat Recovery Plant and 43 MW Thermal Power Plant.

Note: Earlier the EC for same proposal was granted vide letter no J-11011/822/2007-IA.II(I) dated 30th September, 2009 in the name of M/s. Lafarge India Private Limited for setting up of Cement plant for production of 2.0 MTPA Clinker, 3.0 MTPA Cement Plant along with 43 MW CPP. Validity of EC was extended for another 5 years by MoEF&CC dated 6th February, 2015 up to 29th September, 2019. The EC was transfer in the name of M/s. Nuvoco Vistas Corporation Limited. As the EC was expired on 29th September, 2019, the PP was applied for fresh ToR for the same proposal.

43.7.4 Environmental Site Settings:

SNo	Particulars	Details	Remarks		
			SNo	Particulars	Area (ha)
i.	Total land: 150 Ha.	Private single crop agricultural land which is totally acquired	Land use:		
			1	Cement plant & CPPs	20.00
			2	Raw Material Storage areas	10.00
			3	Water Pond	4.00
			4	Railway Siding	13.00
			5	Parking area	6.00
			6	Colony	16.00
			7	Greenbelt	50.00
			8	Roads and Space in between the units	16.00
			9	Future Expansion	15.00
			Total	150	
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Private single crop agricultural land which is totally acquired by NVCL	-		
iii.	Existence of habitation & involvement of R&R, if any.	No habitation in the project area, No R&R is involved	-		
iv.	Latitude and Longitude of the project site	Latitude: 17°3'9.00"N - 17°3'52.00"N & Longitude 77°0'21.00"E - 77°1'9.00"E	-		
v.	Elevation of the project site	425 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	Project area: Nil Study area 1. Kagina River – 6.5 km – WNW	-		

SNo	Particulars	Details	Remarks
		2. Bhima River – 8.5 km – WSW	
viii.	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant	Nil.	-

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

S No	Name of Unit	No of unit	Capacity
1	Clinker Unit	1	2.0 MTPA
2	Cement Grinding Unit	1	3.0 MTPA
3	WHRB based power plant	1	7 MW
4	Coal Based Captive Power Plant	1	43 MW

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

S No	Item	Quantity MTPA	Source	Approx. distance from plant (km)	Mode of Transport	
1	Limestone	3.00	Captive mines (includes performance enhancer quantity)	0.5	Closed Belt Conveyor	
2	Bauxite/laterite	0.166	Belgaum, Goa & Kolhapur area	340	Trucks	
3	Gypsum	0.150	SPIC and Sterlite Industries, Tuticorin, RCF Ltd., Bombay, EID Pary India Ltd., Chennai & Coramandel Fertilizers Ltd., Vizag.	800	Trucks	
4	Slag	1.65	JSW, Bellary	350	Rail	
5	Coal/ Pet coke	Cement plant	0.360	Coal: Singareni and WCL coal mines or imported coal.	300	Rail
			0.175	Pet coke: Mangalore Refinery & Petrochemicals Ltd, Mangalore.	360	Rail / Road
6	Coal	Power plant	0.323	Singareni and WCL coal mines (E-Auction)	300	Rail
7	Ash requirement for PPC	0.850	From captive power plant and Raichur Thermal Power Station, NTPC Ramagundam and NTPC Sholapur etc.	80- 300	Bulkers	

43.7.7 The water requirement for the project is estimated as 1600 m³/day, Water requirement will be obtained from river Kagina. NVCL has obtained necessary permission from Govt. of Karnataka for drawal of 2500 m³/day of water from River Kagina vide Lr. No JS.E.34 AAG 2020 dated 25.03.2021.

43.7.8 The power requirement for the project is estimated as 40 MW, the same will be sourced from proposed 43 MW Captive Coal based Thermal Power Plant & 7 MW Waste Heat Recovery Power Plant. 2x1250 kVA DG sets will be installed as standby power supply.

43.7.9 Baseline Environmental Studies:

Period	Winter Season, December' 2019 to February' 2020
AAQ parameters at 10 Locations	PM _{2.5} = 17.6 to 32.6 µg/m ³ PM ₁₀ = 43.8 to 63.9 µg/m ³ SO ₂ = 7.1 to 15.5 µg/m ³ NO _x = 8.2 to 17.6 µg/m ³ CO: less than 1 ppm
AAQ modelling (Incremental GLC)	PM ₁₀ = 11.36 µg/m ³ SO ₂ = 5.14 µg/m ³ NO _x = 13.71 µg/m ³ CO = 146 µg/m ³ (8-hourly)
Ground water quality at 08 locations	pH: 6.90 to 7.56 Total Hardness: 222 to 581 mg/l, Chlorides: 49 to 416 mg/l, Fluoride: 0.47 to 1.32 mg/l. Heavy metals are within the limits.
Surface water quality at 04 Locations	pH: 7.61 to 7.74 DO: 5.3 to 5.8 mg/l BOD: 2 to 3 mg/l. COD from 11 to 17 mg/l
Noise levels	52.1 to 59.8 dB (A) for the day time and 42.8 to 54.1 dB (A) for the Night time.
Traffic assessment study Findings	
<ul style="list-style-type: none"> • Traffic study was done on National Highway (NH-150) connecting Sedam – Gulbarga road near to plant site. • NVCL will provide railway siding for transportation of raw material and finished product. • Taking that 70% transportation is through Rail and Balance 30% quantity by road. • Raw material/Finished product transport by Road - 1.966 MTPA (15 trucks/hr (20 T Capacity) • Present peak traffic is 592 PCU/Hr. The maximum trucks which would add to the existing traffic will be 15 trucks / hour (60 PCU/Hr) in duration of 16 hours due to the proposed plant. • The Level of Service which is at present in B Category (Very Good) will change to C Category (Good) <i>as per IRC-106:1990</i> • PARKING FACILITIES: <ul style="list-style-type: none"> • 6.0 ha (area allotted within plant) • 3 ha Area for roads and free movement of trucks • 1.8 ha area for 600 vehicles (@30 m² /truck) • 0.60 ha for greenbelt around the parking area • 0.60 ha for facilities to truck drivers 	

Flora and fauna	<ul style="list-style-type: none"> No forests are located in 10 km radius of the study area. There are no Schedule-I species presented in study area. Authenticated list of Flora and Fauna obtained from Forest Department, Govt. of Karnataka
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43.7.10 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 Generated (TPA)	Mode of Treatment /Disposal
1	Fly ash	Captive power plant	113000	Pneumatic Conveying System - Reused in Cement Plant
2	Spent Oil	Cement plant	800 lit/annum	Authorized Recyclers
3	Grease	Cement plant	400 kg/annum	Authorized Recyclers

43.7.11 Public Consultation:

Details of advertisement given	22 nd January, 2021
Date of public consultation	23 th February, 2021
Venue	At Project site, Adjacent To NH-150, Opposite to Indira Nagar, Ravur village, Chittapur Tehsil, Kalaburagi District, Karnataka
Presiding Officer	Smt. V.V Jyothasna, I.A.S Deputy Commissioner, Kalaburagi District
Major issues raised	<ul style="list-style-type: none"> i. Environment & Crop protection ii. Skill training & Employment to locals iii. Water, Education, irrigation facility, community hall iv. Health problem due to pollution v. Corporate Social Responsibility (CSR) vi. Green Belt Development vii. Reason for the delay in Cement Plant construction & Name of the Cement Plant viii. Compensation to Land

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

Public hearing demands and Need based assessment with Action Plan and Budget

S No	Activity	YEAR				Total	
		2022-23	2023-24	2024-25	2025-26		
SWACCH BHARAT							
1	Construction of 27 numbers of toilets in each village for 6 villages @ 0.30 lacs each	Physical Nos	10	5	6	6	27
		@Village	Ravoor	Khammarwadi	Khammarwadi tanda, Wadi	Indira Nagar, Gandhi Nagar	6
		Budget In lacs	3	1.5	1.8	1.8	8.1
2	Provision of	Physical	10	5	10	10	35

S No	Activity	YEAR				Total	
		2022-23	2023-24	2024-25	2025-26		
	35 dustbins for 6 villages	Nos					
		@Village	Ravoor	Khammarwadi	Khammarwaditanda, Wadi	Indira Nagar, Gandhi Nagar	6
		Budget In lacs	0.5	0.25	0.5	0.5	1.75
EDUCATION AND SPORTS							
1	Providing infrastructure to schools in the villages falling in the impact zone. Digital Class Rooms - with Digital Boards connected Computer	Physical Nos	1 Digital Class Rooms with accessories	1 Digital Class Rooms with accessories	2 Digital Class Rooms with accessories	2 Digital Class Rooms with accessories	6
		@Village	Ravoor	Khammarwadi	Khammarwaditanda, Wadi	IndiraNagar, GandhiNagar	5
		Budget In lacs	3	3	6	6	18
2	Painting of government schools.	Physical Nos	1	1	2	2	6
		@Village	Ravoor	Khammarwadi	Khammarwaditanda, Wadi	Indira Nagar, Gandhi Nagar	5
		Budget In lacs	1	1	2	2	6
3	Improvements to the school grounds in government schools. Levelling and compacting the ground and fencing.	Physical Nos	1	1	2	2	6
		Village	Ravoor	Khammarwadi	Khammarwaditanda, Wadi	Indira Nagar, Gandhi Nagar	5
		Budget In lacs	0.5	0.5	1	1	3.0
4	Purchase of furniture for government schools	Physical Nos	1	1	2	2	6
		Village	Ravoor	Khammarwadi	Khammarwaditanda, Wadi	Indira Nagar, Gandhi Nagar	5
		Budget Rs Lakhs	2	2	4	4	12
Solar Light							
1	Installation of solar Lights in Villages @ 14000 per light	Physical Nos	60	40	90	80	7 km road with drainage
		Village	Ravoor	Khammarwadi	Khammarwaditanda, Wadi	Indira Nagar, Gandhi Nagar	5
		Budget Rs Lakhs	8.40	5.60	12.60	11.20	27.80
WATER							
1	Construction of elevated water tank and water supply system Elevated Water tank of 5000 kl	Physical Nos	-	2	1	-	3
		Village	-	Ravoor	Khammarwadi	-	-
		Budget Rs Lakhs	-	10	5	-	15

MoM of 43rd meeting of the Re-constituted EAC (Industry-I) held on 26-27th August, 2021

S No	Activity	YEAR				Total	
		2022-23	2023-24	2024-25	2025-26		
2	Desilting and strengthening of bunds for existing water ponds in the impact villages.	Physical Nos	1	1	-	-	2
		Village	Ravoor	Khammarwadi			-
		Budget Rs Lakhs	3	3	-	-	6
SKILL DEVELOPMENT							
1	Skill development at Gulbarga for 20 students a year for 3 years With fee payment @Rs 10,000 /- and Stipend of Rs 10,000 / pm for 3 months	Physical Nos	20	20	20	-	60
		@Village	10 km radius				
		Budget Rs Lakhs	8	8	8	-	24
2	Self Help Groups for women With Facilities for Handicraft making, Female hygiene products, Paper products and tailoring	Physical nos	1 center	1 center	1 center	-	3
		@ Village	Ravoor,	Indira nagar	Khammarwadi	-	-
		Budget Rs Lakhs	3.0	3.0	3.0	-	9.0
HEALTH CARE							
1	Purchase of hospital equipment and Renovation of primary health centers (PHC) in the impact zone villages.	Physical Nos	-	1	1		2
		Village	-	Ravoor	Wadi		2
		Budget Rs Lakhs	-	3	3	-	6
2	Organizing medical camps with Expert Doctors	Physical Nos	Twice in a year	Twice in a year	Twice in a year	Twice in a year	8
		@Village	Ravoor, Khammarwadi, Khammarwadi Tanda				1
		Budget Rs Lakhs	6	6	6	6	24
OTHERS							
1	Office building for Ravoor gram panchayat with Furniture	Physical Nos		1	-	-	1
		@Village		Ravoor	-	-	1
		Budget Rs Lakhs		15	-	-	15
2	Avenue Plantation along the pucca roads in 3 villages	Physical Nos	5000 saplings	5000 saplings	5000 saplings		15000 saplings
		Village	Ravoor	Khammarwadi & Khammarwadi Tanda	Gandhi Nagar		4
		Budget Rs Lakhs	5	5	5	-	15
TOTAL BUDGET (In lakhs of rupees) – Implementation period - 4 years						190.65	

- 43.7.12 The capital cost of the project is Rs.1500 Crores and the capital cost for environmental protection measures is proposed as Rs.151.91 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs.13.5 Crores. The employment generation from the proposed project is 1500 (250 direct and 1250 indirect - locals will be preferred). The details of cost for environmental protection measures is as follows:

Particulars		Capital Cost (Rs.Crores)	Recurring Cost / annum (Rs.Crores)
Air Pollution	Air Pollution Control Equipment for Cement Plant & Thermal Power Plant	120	10.0
	Sheds & Silos for raw material storage	23.0	1.0
Wastewater Management	Installation of STP & Neutralization pit for TPP	1.0	0.3
Greenbelt development		2.0	1.0
Rainwater Harvesting Structures		1.0	0.80
Environmental monitoring		3.0	0.40
Public Hearing Commitments and Implementation of Need Based activities		1.91	-
Total		151.91	13.5

- 43.7.13 Greenbelt will be developed in 50.0 ha which is about 33% of the total project area. A 20-100 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 1, 25,000 saplings will be planted and nurtured in 50.0 hectares in 05 years.
- 43.7.14 Summary of violation under EIA, 2006/court case/show cause/direction if any, related to the project under consideration is as furnished below:

Litigation Pending Against the Project

One of the land owners has filed a court case against KIADB High Court of Karnataka, Kalaburgi Bench vide Case No – 201685 & 201689- 2017 making NVCL as one of the respondent.

Name of the Petitioner: Mr. Tulsiram Kishan Rao Kankurti, S/o Kishan Rao Kankurti

Respondents: 1. The State of Kamataka 2. KIADB & 4 Others, including M/s. Nuvoco Vistas Corporation Ltd. (Formerly known as M/s. Lafarge India Pvt. Ltd.) as Respondent No.6.

Reason stated in the Writ Petition for filing of the case: The Petitioner is not satisfied with the compensation awarded by the KIADB for acquisition of his lands bearing survey numbers - 450, 46111, 46112and 461/3.

Present Status: M/s. Nuvoco Vistas Corporation Ltd. has not received any Notice or Communication from the Hon'ble High Court of Karnataka, Kalaburagi Bench.

Court order is yet to be issued. The above details are uploaded in the court order slot on our letter head.

- 43.7.15 Name of the EIA consultant: M/s. B. S. Envi Tech Pvt. Ltd, [at S No. 140, Certificate No. NABET/EIA/1922/RA 0174, Validity – 16th November, 2022; Rev 13, 09 August, 2021]

Observations of the Committee

43.7.16 The Committee observed the following:

- i. All maps and figures have been given in annexure. Difficult to read the documents as the reader has to refer to annexure every now and then. Annexure is a separate document. In view of this, the EIA report needs to be revised.
- ii. PP has not provided the % of sulphur content in raw material (limestone).
- iii. It is observed that PP is producing low pressure steam and hence the waste heat recovery is low for e.g. 34.2 T steam is producing 7 MW and 180 TPH steam is giving 43 MW only. Plant heat rate is 3000 Kcal/kwh, which is very high. It should not be more than 2600 Kcal/Kwh.
- iv. Schedule for performance monitoring of Pollution Control Devices has not been included as part of Environment Monitoring Program.
- v. Deputy Manager Environment reports to the unit Head. TOR point 9 has not been complied.
- vi. Budget for Environment Management is given as Rs150 Cr on Capex of Rs 1500 Cr, which is low. Revised budget estimate to be worked out and submitted.
- vii. The physical targets along with the budget allocated furnished in the action plan is not covering all the issues raised during the public hearing. In view of this, revised action plan to address all the issues raised during public hearing shall be submitted as per the MoEF&CC O.M. dated 30/09/2020.
- viii. Per ton of cement energy consumption reported in the EIA report is observed to be higher side. Revised action plan is required to reduce the energy requirement [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] with energy efficient process in the line of reducing carbon footprint.

Recommendations of the Committee

43.7.17 In view of the foregoing and after deliberations, the Committee recommended to return the proposal in its present form to address the shortcomings enumerated above.

43.8 Expansion of existing Sponge Iron Plant production capacity from 1,05,000 TPA to 2,50,000 TPA & Power generation through WHRB from 8 MW to 16 MW, installation of SMS with Induction Furnace, LRF & CCM to produce M.S. Billets of 2,50,000 TPA, Rolling Mill to produce 2,50,000 TPA of Wire Rods/TMT bars, Pellet plant of 0.6 mtpa & CFBC based Power plants of 2x16 MW **by M/s. MGM Minerals Limited (Steel Division)** located at Nimidha, Haldiabahal & Uparpal Villages, P.S. Motanga, Odapada Tehsil, **Dhenkanal District, Orissa** [Online Proposal No. IA/OR/IND/5005/2007; File No: J-11011/438/2007-IA.II(I)] – **Environment Clearance** – regarding.

43.8.1 M/s. MGM Minerals Limited (Steel Division) has made an online application vide proposal no. IA/OR/IND/5005/2007 dated 19/07/2021 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

43.8.2 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord
24 th June 2020	Standard TOR issued	TOR issued	13 th May, 2020

43.8.3 The project of M/s. MGM Minerals Limited (Steel Division) located in Nimidha, Haldiabahal & Uparpal Village, Odapada Tehsil, Dhenkanal District, Odisha has proposed Expansion of existing Sponge Iron Plant production capacity from 1,05,000 TPA to 2,50,000 TPA & Power generation through WHRB from 8 MW to 16 MW, installation of SMS with Induction Furnace, LRF & CCM to produce M.S. Billets of 2,50,000 TPA, Rolling Mill to produce 2,50,000 TPA of Wire Rods/TMT bars, Pellet plant of 0.6 MTPA & CFBC based Power plants of 2x16 MW.

43.8.4 Environmental Site Settings:

SNo	Particulars	Details	Remarks
i.	Total land	74.39 ha (183.82 acres). All land in possession of M/s. MGM Mineral Limited (Steel Division)	Land Use: Industrial
ii.	Land acquisition details as per MoEF&CC, O.M. dated 7/10/2014	Already Acquired (through IDCO, Govt. of Odisha)	--
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	Latitude 20°46'04.93"N to 20°46'47.50"N Longitude 85°20'06.85"E to 85°20'53.14"E	--
v.	Elevation of the project site	310 - 315 m AMSL	--
vi.	Involvement of Forest Land, if any	Nil	--
vii.	Water body exists within the project site as well as study area	Project Site: A seasonal dry Nallah is passing through the plant site and one water body present in project site. Study area: Brahmani River (N)/ 3.3 Km Nigra or Lingara Nadi (W) /2.8 Km BarhaJor Nadi (E) / 6.2 Km Agana Nadi (SE) / 8.3 Km Kisinda Jhor (NW) / 4.6 Km Kusumder Jhor (SE) / 2.9 Km Ria Jor (N) / 3.6 km Rengali Right Main Canal (NW)/ 0.1 Km	--
viii.	Existence of ESZ / ESA /	Nil	Conservation

SNo	Particulars	Details	Remarks
	National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. if any within the study area	However, movement of Elephants is observed within 10 Km radius of the plant, as per the secondary source. Conservation plan has been prepared.	plan is approved by PCCF with budget of Rs.248.36 Lakhs to be spent over a period of 10 years.

43.8.5 The existing project was accorded environmental clearance vide Ir. no. J-11011/438/2007-IA.II(I) dated 02.02.2009, Extension of EC has been obtained on 10.11.2016 for three years, i.e. up to 01.02.2019. Subsequently EC has been transferred from MGM Steels Limited. Consent to Operate for the existing unit was accorded by Odisha State Pollution Control Board (OSPCB) which is valid up to 31/03/2024.

43.8.6 Implementation status of the existing EC

Facilities Envisaged	Production capacity	Consent Status	Remarks	
DRI Kilns (Sponge Iron)	2,10,000 TPA	1,05,000 TPA (in Operation)	Note: ** For the remaining units construction could not start before the EC validity period.	
Induction Furnace (MS Billets / Ingots)	2,50,000 TPA** (Crude steel) 2,42,553 TPA** (Billets)	Not Implemented		
Pig Iron	62,000 TPA**	Not Implemented		
Hot Metal	1,31,000 TPA**	Not Implemented		
Coal Washery	5,00,000 TPA**	Not Implemented		
Power Plant	WHRB	16 MW**		8 MW (in Operation)
	AFBC	16MW** (AFBC)		Not Implemented

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

S. No.	Unit	Total Capacity as per the EC issued vide dated 02.02.2009 & 10.11.2016	Total Capacity implemented as per the EC issued vide Letter dated 02.02.2009 **	Present Expansion	Total production capacity After Present Expansion
1	DRI Kiln for Production of Sponge Iron	2,10,000 TPA	1,05,000 TPA (1x350 TPD)	Capacity Enhancement of existing 350 TPD DRI kiln i.e. from 1,05,000 TPA to 1,25,000 TPA & Additional 350 TPD DRI kiln of 1,25,000 TPA	2,50,000 TPA (2x 350 TPD DRI kilns)

S. No.	Unit	Total Capacity as per the EC issued vide dated 02.02.2009 & 10.11.2016	Total Capacity implemented as per the EC issued vide Letter dated 02.02.2009 **	Present Expansion	Total production capacity After Present Expansion
				capacity	
2	Induction furnace with LRF &CCM to produce Crude Steel / MS billets	2,50,000 TPA** (Crude steel) 2,42,553 TPA** (Billets)	Nil	2,50,000 TPA of Billets (8x 10 Ton IF + 2x20 Ton LRF + 2 Nos. 6/11 - 2 Strand Continuous Casters)	2,50,000 TPA of Billets (8x 10 Ton IF + 2x20 Ton LRF + 2 Nos. 6/11 - 2 Strand Continuous Casters)
3.	Pig Iron	62,000 TPA**	Nil	---	---
4.	Hot Metal	1,31,000 TPA**	Nil	---	---
5.	Coal Washery	5,00,000 TPA**	Nil	---	---
6.	Rolling Mill to produce either Wire Rods or TMT bars with 85% Hot charging	Nil	Nil	2,50,000 TPA	2,50,000 TPA
7.	Power generation through WHRB	16 MW**	8 MW	8 MW	16 MW
8.	Power Plant through CFBC Boiler	16 MW** (AFBC)	Nil	2x16 MW (CFBC)	32 MW (CFBC)
9.	Pellet Plant	Nil	Nil	0.6 mTPA	0.6 mTPA
Note:					
** The remaining units / products are unimplemented as the EC accorded in 2009 and EC has been expired.					

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

S No	RAW MATERIAL	QUANTITY (TPA)	SOURCES	MODE OF TRANSPORT
1. For manufacturing Sponge Iron of 1,25,000 TPA				
a.	Iron Ore	1,89,400	From owned I/O mines at Patabeda / In-house produced pellet	By Road (Covered Trucks)
b.	Dolomite	3,890	Chhattisgarh	By Road (Covered Trucks)
c.	Coal (Mixed)	Indian Coal	Talcher/ Chhattisgarh	By Road (Covered Trucks)
		Imported Coal	Indonesia/ South Africa / Australia	From Paradeep / Gangavaram Port By Sea, by Road(Covered trucks)
2. For manufacturing Hot MS Billets through Induction Furnaces - 2,50,000 TPA				
a)	Sponge Iron	2,50,000	In-house	Covered Conveyor
b)	Pig Iron	14,860	Angul / Dhenkanal	By Road (Covered Trucks)
c)	Scrap	26640	Angul / Dhenkanal	By Road (Covered Trucks)
d)	Ferro Alloys (Si-Mn)	2,560	Angul / Dhenkanal	By Road (Covered Trucks)
e)	Ferro Alloys (Fe-Mn)	1020	Angul / Dhenkanal	By Road (Covered Trucks)
f)	Lime	520	Angul / Dhenkanal	By Road (Covered Trucks)

S No	RAW MATERIAL	QUANTITY (TPA)	SOURCES	MODE OF TRANSPORT
3. For manufacturing Wire Rods / TMT bars through Rolling Mill – 2,50,000 TPA				
a.	Hot charging of MS Billets	2,50,000	In house generation	Covered Conveyor
b.	M.S. Billets (external purchase)	13,500	External purchase	By Road (Covered & sealed Trucks)
c.	LDO / LSHS*	8,250	Local	By Road through tanker
4. For Power Generation –CFBC based power plant of 2x16 MW				
a.	Coal	Indian	1,74,200	Talcher / Chhattisgarh / By Road through covered trucks
		OR		
		Imported	94,500	Indonesia / South Africa / Australia / From Paradeep / Gangavaram Port By Sea, by Road(Covered trucks)
b.	Dolochar	62,500	In-house production	Closed conveyor
5. For manufacturing Pellets – 6,00,000 TPA				
a)	Iron ore fines	6,74,000	From owned I.O. Mines at Patabeda	By Road (Covered Trucks)
b)	Bentonite	4,800	Angul / Dhenkanal	By Road (Covered Trucks)
c)	Limestone	36,000	Angul / Dhenkanal	By Road (Covered Trucks)
d)	Coal (Bituminous)	6,000	Angul / Dhenkanal	By Road (Covered Trucks)
e)	Fuel (Anthracite Coal)	26,040	Angul / Dhenkanal	By Road (Covered Trucks)
Note:				
1) There will be provision for installation of Re-heating Furnace. In that case LDO/ LSHS will be used as Fuel.				
2) LDO/ LSHS will also be used for burners of drying system for raw material of pelletization plant. Also in case of drop in temperature of Travelling Grate Furnace of Pelletisation plant, supporting heating arrangement with LDO/ LSHS is considered.				

43.8.9 The water requirement for the existing & proposed expansion project is estimated as 6662 KLD, and same will be sourced from Brahmani River. Water withdrawal permission has already been obtained for 1.63 Cusec i.e. 166.16 Cum/hr (3988 KLD) from Water Resources Department, Govt. of Odisha. Department of water resources, Govt. of Odisha has enhanced the water permission from 1.63 cusec to 2.67 cusec, vide no 18379/ WR – MAJII-WRC-0071/2021 (OSWAS) dated 02/08/2021 to meet additional water requirement of 2545 KLD (1.04 cusec). About 100 m³/day Water for domestic purpose will be sourced from existing Bore well.

43.8.10 Power required for the existing & present proposal is estimated 57.14 MW, which will be partly met from 48 MW Captive Power Plant & remaining 9.14 MW will be imported from State Grid.

43.8.11 Baseline Environmental Studies:

Period	1 st December 2019 to 29 th February 2020.
AAQ parameters at 8 locations	PM _{2.5} = 17.9 to 35.2 µg/m ³ PM ₁₀ = 35.6 to 60.5 µg/m ³ SO ₂ = 5.9 to 11.4 µg/m ³ NO _x = 6.1 to 15.6 µg/m ³ CO = 316 to 912 µg/m ³
AAQ modelling (Incremental GLC _{max})	PM ₁₀ = 1.95 µg/m ³ (1200 m in SWW) SO ₂ = 5.97 µg/m ³ (1200 m in SWW)

	NO _x = 13.24 µg/m ³ (1200 m in SWW) CO= 3.04 µg/m ³ (1200 m in SWW)
Ground water quality at 8 locations	pH : 6.8 to 7.6; Total hardness : 242 to 488 mg/L Chlorides : 274 to 566 mg/L ; Fluoride : 0.45 to 0.88 mg/L Heavy metals : 0.04 to 0.14 mg/L
Surface water quality at 6 locations	pH =7.1 to 7.9 ; DO = 5.1 to 6.8 mg/L TDS = 161 to 392 mg/L ; Chlorides = 85 to 189 mg/L Sulphates = 52 to 144 mg/L
Noise levels	43.6 to 65.8 dBA for day time ; 36.9 to 59.4 dBA for night time
Traffic assessment study findings	Traffic load (Baseline): 12,717.5 PCU/day Additional Traffic load during operation of the Expansion project: 1,555.5 PCU/day Total Traffic load during operation of expansion project load: 14,273 PCU/day Traffic Capacity as per the IRC 73:1980 for Highways 20000 PCU/day. All internal Road are designed for 5MSA (capacity) as per IRC – 37. At the rate of 305 full laden trucks per day, annually there will be 2 MSA, which is well within the 5 MSA capacity. Slip roads will be provided on either side to avoid traffic congestion. The land required for slip roads is under NHAI. PP has approached them and requested for lying of slip roads. The necessary expenditure for laying of slip roads will be borne by MGM.
Flora and fauna	In buffer zone following scheduled -I fauna are present Elephant (Elephas maximus) (as per the secondary source Elephant movement was observed in the study area) Conservation Plan has been prepared & it is approved by PCCF, Odisha and allotted budget of Rs.248.36 Lakhs to be spent over a period of 10 years.

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

S No	Waste	Quantity (TPA)			Method of disposal	Agreement Details of Disposal
		Existing	Proposed	Total		
1	Ash from Anthracite Coal	Nil	5210	5210	Utilization in captive Brick Manufacturing Unit.	Captive
2	Ash from DRI	23,750	23,750	47,500	Utilization in own Brick Manufacturing Unit.	Captive
3	Dolochar	31,250	31,250	62,500	Will be utilized in the Captive CFBC power plant	Captive
4	Kiln Accretion Slag	1,250	1,250	2,500	Utilization in captive Brick Manufacturing Unit.	Captive

5	Wet Scraper Sludge	3,750	3,750	7,500	Utilization in captive Brick Manufacturing Unit.	Captive
6	SMS Slag	Nil	35,000	35,000	Utilization in Ready mix plant after crushing followed by iron Recovery	Given to M/s. Supreme Concrete & infrastructure company for Ready Mix
7	Mill scales from Rolling Mill	Nil	2,500	2,500	Given to Ferro alloy plant	Willingness Letters from M/s. Shyam Steels & AB Metaliks
8	End cutting from Rolling Mill	Nil	6,250	6,250	Utilization In Induction Furnace	NA
9	Ash From CPP Using Indian Coal and Dolochar	Nil	1,07,200	1,07,200	Utilization in captive Brick Manufacturing Unit.	NA
10	STP Sludge	0.1 TPD	0.2 TPD	0.3 TPD	Utilization in Green Belt Development	NA

Hazardous waste Generation:

- 1) Waste Oil : 30 KL/Annum

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

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

43.8.13 Public Consultation:

Details of advertisement given	12/02/2021 & 13/02/2021
Date of Public Consultation	16 th March, 2021
Venue	Balramprasad Village (Plot no.5092 & 5093 of Khata no.315) of Odapada Tehsil, Dhenkanal Dist., Odisha.
Presiding Officer	Additional District Magistrate
Major issues raised	<ul style="list-style-type: none"> • Adoption of Nimidha Village • Relaying of Road • Air and water Pollution Control measures • Employment to Locals • Protection of nearby forest • protection of crops from elephants • Employment to Land sellers • Medical facilities • Street light facility • Pension scheme to women senior citizen • Dust control measures • Additional facilities in schools • Drinking water facilities • Social & infrastructural development activities

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

SNo	Issue raised	Management Response	Time schedule	Budgetary allocation
1.	Employment opportunity for the land sellers & unemployed persons from the nearby villages.	<p>PP has acquired the Land through Industrial Development Corporation of Odisha (IDCO), Govt. of Odisha.</p> <p>Total direct & indirect employment in existing plant is 556. Out of this 533 nos. are from the state. In Dhenkanal district alone 308.</p> <p>In the expansion employment will be provided to 650 people directly and 650 people indirectly during operation of the expansion. Local people will be given priority in employment based on their qualification and it will be continued after expansion also.</p>	---	---
2.	Repair and maintenance of nearby village roads	<p>The management of existing plant is already doing repair & maintenance of Nimidha, Uparpal, Haldiabahal village roads.</p> <p>Similar practice will be continued after expansion also under CSR activities as per company's act 2014.</p>	<p>2022-23 2023-24 2024-25</p> <p>Every year</p>	<p>Rs. 18 lacs Rs. 16 lacs Rs. 16 lacs Total Rs. 50 Lacs</p> <p>Rs. 2 Lacs</p>
3.	Provision of regular health checkup facility	<p>Keeping in view of the health of the local people, the company has already appointed one Doctor on contract basis in this area for regular health checkup for the locals on every fort-night basis.</p> <p>Primary Health Care facility with ambulance will be provided in Nimidha & Haldabahal villages.</p>	<p>2023-24 2024-25</p>	<p>Rs. 30 lacs Rs. 30 lacs Total Rs. 60 Lacs</p>
4.	Street light facility in the nearby villages	<p>Management will provide Street light facilities in Nimidha, Haldiabahal, uperpal villages.</p>	<p>2022-23 2023-24 2024-25</p>	<p>Rs. 4.0 lacs Rs. 4.0 lacs Rs. 4.0 lacs Total Rs. 12 Lacs</p>
5.	Adequate air pollution control measures	<p>In the existing plant all required air emission control measures such as bag filters, ESP, Dust suppression system, covered conveyers have been installed and operated duly complying with the stipulated norms.</p> <p>In the proposed expansion project following air emission measures will be provided for duly complying with norms stipulated by MOEF&CC /OSPCB:</p> <ul style="list-style-type: none"> • ESPs will be provided to Pellet Plant &DRI Kilns to bring down the particulate emission to less than 30 mg/Nm³. • ESP will be provided to Power plant to bring down the particulate emission to less than 30 mg/Nm³. • Fume Extraction & Cleaning system with bag filters (PTFE type) will be provided to SMS Units to bring down the particulate matter emission to less than 30 mg/Nm³. 	<p>2022-24 2024-26 2026-28</p>	<p>Rs. 8.4 Cr Rs. 4.2 Cr Rs. 2.3 Cr Total Rs 14.9 Crores</p>

SNo	Issue raised	Management Response	Time schedule	Budgetary allocation
		<ul style="list-style-type: none"> All conveyors will be fully covered with GI sheets to control the fugitive 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 only after ESP is rectified to comply with the norms. 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. Ash will be stored in silos only. Greenbelt has been developed in 24.6 Ha (60.8 Acres) of land and 50,310 nos. of plants are existing. Now it is proposed to develop additional 15,000 nos. of plants by October, 2021 to further mitigate the emissions. All these environmental protection systems will be installed and operated to comply with the norms. Hence there will not be any significant impact on the environment due to the proposed expansion. 		
6.	Construction of additional room for Haladiabahal village school	Additional rooms will be constructed in Haldiabahal village school.	2022-23	12 Lacs
7.	Provision of drinking water supply to Haladiabahal village	RO plants will be provided in Haldiabahal, Nimidha, Uparpal villages	2022-23 2023-24 2024-25	Rs. 6.5 lacs Rs. 6.5 lacs Rs. 6.5 lacs TotalRs. 19.5 Lacs
8.	Construction of additional class rooms for Nimidha village High school with Teacher	Additional rooms will be constructed in Nimidha village High school.	2023-24	15 Lacs
9.	Repair and maintenance of Lord Shiva Temple of Nimidha village	Repair and maintenance of Lord Shiva Temple of Nimidha village will be taken –up	2023-24	Rs.20 Lacs
10.	Adoption of Nimidha village for more CSR development	Adoption of Nimidha Village will be done in Consultation with village panchayat & District Administration.	2022-23 2023-24 2024-25	Rs. 7 lacs Rs. 15 lacs Rs. 15 lacs Total Rs. 37 Lacs
11.	Protection of nearby forest.	In the proposed expansion all required environment protection measures such as bagfilters (PTFE type), ESPs, Dust suppression system, covered conveyers, mechanical dust sweepers, ZLD system; solid waste disposal as per norms will be followed duly complying with the stipulated norms.	2022-24 2024-26 2026-28	Rs. 8.4 Cr Rs. 4.2 Cr Rs. 2.3 Cr Total Rs 14.9 Crores

SNo	Issue raised	Management Response	Time schedule	Budgetary allocation
		Hence there will not be any adverse impact of forest due to the proposed expansion project		
12.	Construction of additional room for Nimidha village High school with Teacher	Additional rooms will be constructed in Nimidha village High school.	2023-24	15 Lacs
13.	Pension facility for senior citizen (women).	Company will provide financial assistance to Self Help Groups (SHG) of women and elderly persons of Nimidha, Uperpal&Haladiabahal villages	2022-23 2023-24 2024-25	Rs 6.0 Lacs Rs 6.0 Lacs Rs 6.0 Lacs Total Rs. 18.0 Lacs
14.	Provision of Gochar type land to Nimidha village	2 Acres of grazing land will be purchased and given.	2023-24	Rs. 20 Lacs
15.	Adequate plantation.	Plantation has already been developed within the plant premises. Additional 15,000 Nos. of plants will be planted by October, 2021.	2022-23	Rs 30 lacs
16.	He expressed that MGM Company has acquired 5 acres of land from Sri. Rameswar Baba and till date company has not given any type of assistance to him.	Land has been acquired through IDCO, Govt. of Odisha. Company will certainly assist him in providing some contract work depending on his experience.	---	---
17.	Provision for Industrial Training facility for the local people who completed Higher Secondary exam or Matriculation exam.	Every year Company is sponsoring 10 candidates for ITI training through CIPET. Now as part of expansion Skill development center will be established and help the youth in getting placements in our company & other companies also.	2022-23 2023-24 2024-25	Rs. 30 Lacs Rs. 30 Lacs Rs. 30 Lacs Total Rs. 90 Lacs
18.	street light facility on village roads	Management will provide 6 nos. of Street lights in Malibida village	2023-24	Rs. 1.5 Lacs
19.	drinking water to their village	Mineral water plants will be provided in Malibida village.	2024-25	Rs.6.5 Lacs
20.	About one acre of his land also encroached illegally by the company and till date company has not taken any steps to solve his land acquired problem.	No land has been encroached by the company and the land has been acquired through IDCO, Govt. of Odisha.	---	---
21.	About 15 Acres of Gochar land also encroached by MGM company. During land acquisition time MGM Company assured to the villagers that they will provide another 15 acres of land outside their industrial area against the villagers	Land has been acquired through IDCO, Govt. of Odisha. There is no Gochar land in the plant area.	---	---

SNo	Issue raised	Management Response	Time schedule	Budgetary allocation
	Gochar land. Till date no steps taken by this company.			
22.	Provide necessary assistance towards higher education for the students of Haladiabahal village	Management has proposed to provide scholarships to top 10 Merit students belong to Class-10 of Nimidha, Uparpal & Haldiabahal Villages under CSR.	Every Year	Rs.1.5 Lacs
23.	He urged to the company authority to take necessary steps for more CSR work in this area.	Social & infrastructural developmental activities will be taken up as part of expansion.	2022-23 2023-24 2024-25	Rs. 83.5 Lacs Rs. 172 Lacs Rs. 160.5 Lacs Rs. 416 Lacs
24.	He mentioned that there are so many accidents happened on the National Highway where the temple exists adjacent to NH.	Presently expansion of Highway activities is being carried out by the govt. of Odisha. Once the expansion of Highway completed, adequate safety measures will be provided. Awareness programs will be conducted in the villages regarding road safety measures.	---	---
25.	He urged to MGM company to provide necessary assistance for develop the temple so that various pujas may be performed daily at various times of the day.	Company assures to provide financial assistance for conducting various pujas every year under CSR activity as per companies act 2014	Every year	Rs 2.0 lacs
26.	He demanded to the MGM Company that necessary assistance shall be provided to this temple committee for completion of lighting facility around the temple premises, drinking water supply and development of park adjacent to temple at Balaramprasad Village.	One RO water plant & 8 nos. of Street lighting arrangement will be provided in the temple.	2023-24 2024-25	Rs. 2.0 Lacs Rs. 6.5 Lacs

Budget Allocated For Social Welfare Activities

S No	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lacs)	
		1 st Year (Rs. in Lacs)	2 nd Year (Rs. in Lacs)	3 rd Year (Rs. in Lacs)		
A). Based on Need Based & SIA Study						
1	Community & Infrastructure Development Programmes					
	i) Construction of public toilets	Physical Nos. & village	---	3 nos. in Uparpal (V)	1 no. in Haldiabahal (V)	6
		Budget in Lacs	0.0	3	3	

S No	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lacs)
			1 st Year (Rs. in Lacs)	2 nd Year (Rs. in Lacs)	3 rd Year (Rs. in Lacs)	
	ii) Providing LED Street lighting with solar panels	Physical Nos. & village	----	16 nos. in Haldiabahal (V)	8 nos. in Uparpal (V) 8 nos. Mermundali (V)	8
		Budget in Lacs	0.0	4	4	
	iii) Relaying of road	Physical Nos. & village	---	1000 m in Uparpal village	1000 m in Haldiabahal village	32
		Budget in Lacs	0.0	16	16	
				Total	46	
2	Education					
	i) Providing Sport kits for schools	Physical Nos. & village	----	In Uparpal Village	in Haldiabahal Village	4.0
		Budget in Lacs	0.0	2.0	2.0	
	ii). Construction of toilets in surrounding schools & its maintenance	Physical Nos. & village	----	3 nos. in Haldiabahal (V) 3 nos. in Uparpal (V)	3 nos. in Mermundali (V) 3 nos. in Balramprasad (V)	6.0
		Budget in Lacs	0.0	3.0	3.0	
				Total	10	
3	Distribution of tricycles for handicapped	Physical Nos. & village	10 nos. of tricycles in Nimidha (V) 10 nos. of tricycles in Uparpal (V)	10 nos. of tricycles in Mermundali (V) 10 nos. of tricycles in Haldiabahal (V)	10 nos. of tricycles in Bhagirathipur (V) 10 nos. of tricycles in Chintapokhari (V)	6.0
Budget in Lacs		2	2	2		
4	RWH pits in the surrounding villages & De-siltation of ponds	Physical Nos. & village	2 nos. in Primary School, Nimidha Village 2 nos. in Panchayat Office 2 nos. in Govt. upper primary School, Dhalapur Village, 2 nos. in sarswathishishumandir, Bhagirathipur Village	Increase of 1.0 m depth in storage due to De-siltation of pond in Nimidha Village (20°45'58.77"N, 85°20'18.88"E) Increase of 1.0 m depth in storage due to De-siltation of pond in Uparpal Village (20°47'25.71"N, 85°20'5.77"E)	Increase of 1.0 m depth in storage due to De-siltation of pond in Haldiabahal Village (20°47'19.03"N, 85°20'52.62"E)	29
Budget in Lacs		4.0	10	15		

S No	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lacs)
		1 st Year (Rs. in Lacs)	2 nd Year (Rs. in Lacs)	3 rd Year (Rs. in Lacs)	
				TOTAL (A)	91
B). Based on Public Consultation/Hearing					
1	Impart training to the local villagers for skill development. a) DISHA Centre” along with necessary infrastructure for various vocational training program for employment generation in association with <i>National Skill Development Mission</i> (Automobile Repair, Welding, Electrical, Computer Hardware, Soft skills like computer programs etc.)	Physical Nos. & village Vocational training to unemployed youth 25 nos. from Nimidha (V) 25 nos. from Uparpal (V)	Vocational training to unemployed youth 25 nos. from Haldiaahal (V) 25 nos. from Mermundali (V)	Vocational training to unemployed youth 25 nos. from Balramprasad (V) 25 nos. from Kalusahukateni (V)	90
		Budget in Lacs 30	30	30	
2	Financial assistance to Self Help Groups (SHG) of women and elderly persons	Physical Nos. & village Women SHG -10 groups in Nimidha Village	Women SHG - 10 groups in Uparpal Village	Women SHG - 10 groups in Haldiaahal Village	18
		Budget in Lacs 6	6	6	
3	Strengthening & maintenance of Nimidha Village Road upto High School	Physical Nos. & village 1200 m in Nimidha Village	---	---	18
		Budget in Lacs 18	---	---	
4	Adaptation of Nimidha Village for more CSR development including schools	Physical Nos. & village Developmental activities in Nimidha Village Gram panchayat such as providing 16 nos. LED Street lights, 3 nos. of Toilets in School & 3 nos. of Toilets in village	Renovation of School building & 3 nos. of class rooms in Nimidha Village	Providing Computer & Library facilities and Furniture in School of Nimidha Village	37
		Budget in Lacs 7	15	15	

S No	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lacs)	
		1 st Year (Rs. in Lacs)	2 nd Year (Rs. in Lacs)	3 rd Year (Rs. in Lacs)		
		Lacs				
5	2 acres of Gochar land to Nimidha Village	Physical Nos. & village	---	2 acres of Gochar land to Nimidha Village	---	20
		Budget in Lacs	0.0	20	0.0	
6	Provision of Better educational facilities with additional classrooms for Primary School and High School at Haladiabahal village	Physical Nos. & village	Renovation of School building & 3 nos. of class rooms in Haladiabahal village	Providing School Furniture for 3 nos. of class rooms in Haladiabahal village	Providing Computer & Library facilities in School of Haladiabahal village	20
		Budget in Lacs	8	4	8	
7	Renovation of Shiva Temple in Nimidha Village	Physical Nos. & village	----	Renovation of Shiva Temple in Nimidha Village	----	10
		Budget in Lacs	----	10	----	
8	Provision of drinking water facility	Physical Nos. & village	RO plant in Nimidha Village	RO plant in Uparpal Village	RO plant in Haldiaahal Village	19.5
		Budget in Lacs	6.5	6.5	6.5	
9	Plantation development	Physical Nos. & village	1000 plants in Nimidha Village	1000 plants in Uparpal village	1000 plants in Haldiabahal village	6
		Budget in Lacs	2	2	2	
10	Primary Health Centre with Ambulance to Haladiabahal, Nimidha villages	Physical Nos. & village	---	Primary Health Centre with Ambulance facility in Nimidha Village	Primary Health Centre with Ambulance facility in Haladiabahal Village	70
		Budget in Lacs	---	35	35	
11	Provision of drinking water facility, Street lights in Malibida Village	Physical Nos. & village	---	6 nos. Street lights in Village Malibida	RO plant for Drinking water in Village Malibirha	8.0
		Budget in Lacs	---	1.5	6.5	
12	Provision of drinking water facility, Street lights in Village Balramprasad	Physical Nos. & village	---	8 nos. Street lights in Village Balramprasad	RO plant for Drinking water in Village Balramprasad	8.5
		Budget in Lacs	---	2.0	6.5	
					Total (B)	325
		TOTAL	83.5	172	160.5	416

S No	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lacs)
		1 st Year (Rs. in Lacs)	2 nd Year (Rs. in Lacs)	3 rd Year (Rs. in Lacs)	
		<i>Grand Total(A+B)</i>			416

43.8.14 The capital cost of the expansion project is **Rs.677 Crores** and the capital cost for environmental protection measures (including 4.16 crores earmarked for issues raised during public hearing and need based assessment) is proposed as **Rs. 28.64 Crores**. The annual recurring cost towards the environmental protection measures is proposed as **Rs.3.64 Crores**. The employment generation from the proposed expansion project is 1300. The details of cost for environmental protection measures is as follows:

S. No	Particulars	Capital Cost (Rs. in Crores)				Recurring Cost /Annum (Rs. in Crores)
		2022-2024	2024-2026	2026-2028	Total	
1.	Air Emission Management	8.4	4.2	2.3	14.9	2.0
2.	Wastewater Management	0.2	0.4	---	0.6	0.50
3.	Solid waste Management	1.35	0.65	0.5	2.5	0.29
4.	Greenbelt development, RWH etc.	0.3	0.1	---	0.4	0.40
5.	Fire Safety Systems	1.0	1.0	---	2.0	0.05
6.	Environmental Monitoring					
	• CAAQMS (already 4 nos. are already existing)	---	---	---	---	0.04
	• CEMS	0.25	0.20	0.05	0.5	0.01
7.	Occupational Health & Safety	0.40	0.25	0.45	1.1	0.35
8.	Budget for Social & Infrastructure Development Activities	2.555	1.605	---	4.16	----
	Sub Total	14.455	8.405	3.3	26.16	3.64
9.	Budget for Conservation plan	Rs. 2.48 Crores (to be spent over a period of 10 years)				---
	GRAND TOTAL	28.64 Crores				

43.8.15 Total Greenbelt (inclusive of existing) will be 60.8 Acres (24.6 Ha.) which is 33.3% of the total project area. 10 m to 145 m wide greenbelt, consisting of 3 tier plantation will be maintained. Local and native species will be planted with a density of 2500 trees per hectare. 50,310 no. of plants are existing till date (survival rate 85%). Other 15,000 nos saplings will be planted by October, 2021.

- 43.8.16 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.
- 43.8.17 Name of the EIA Consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [S.No.133 in the List of ACOs and NABET certificate vide no. NABET/EIA/1922/RA0149 valid till 22-03-2022; Rev. 13, August 09, 2021].

Certified compliance report from Regional Office

- 43.8.18 The Status of compliance of earlier E.C. was obtained from Regional Office, Bhubaneswar, Odisha vide letter no. J- 101-296/07/EPE Dated 04-12-2020. The Action taken report (ATR) regarding the partially/non-complied condition was submitted to Regional officer, MoEF&CC, IRO, Bhubaneswar, Odisha vide letter dated 13/07/2021. The present status as furnished by the PP is given as below:

S No	Non-compliance Reported if any	Corrective action taken	Present status
1.	(Specific condition No. i & General Condition No. iv) PAs need to install the three online AAQ monitoring systems and to conduct AAQ Monitoring in 4 locations.	PP has installed total 4 nos of online Ambient Air Quality (AAQ) Monitoring Systems. However they are yet to be connected to CPCB server which will be completed by 10/09/2021.	Complied
2.	Specific condition No.vii, viii It was observed that water in the form of a nallah was flowing from the rainwater harvesting reservoir to the outside of the project site. PAs informed that excess water from the water reservoir was flowing out. It is recommended that the reservoir capacity may be re-examined and finalized as per the rainfall data.	Water flows out of the reservoir only during the rainy season through a seasonal nallah, When the reservoir is full due to rainfall & surface runoff. The reservoir capacity will be enhanced. In addition to this 2 nos. of rainwater harvesting ponds of size 75 m x 75 m x 8 m & 45 m x 45 m x 3 m which have been constructed will be merged and the total depth for the entire pond will be 8 m.	To be complied by May 2022
3.	Specific condition No. xiii PAs have not submitted the report regarding toxic metal content in the waste material. The same needs to be submitted to the Regional Office.	Copy of test reports of waste generated (fly-ash) has already been submitted on 04/02/2021. Currently the only waste generated in plant is Fly Ash. TCLP test has been conducted on the same & it has been found that all the parameters are within the permissible limits to be categorized as non-hazardous. A copy of test report is enclosed.	Complied

S No	Non-compliance Reported if any	Corrective action taken	Present status
4.	<p>Specific Condition xiv Pas need to submit information with respect to proper utilization of the remaining amount of fly ash for the two years mentioned</p>	<p>PP has been allotted excavated & abandoned Vacant Stone quarry of 4.58 Acres for filling of Fly Ash and reclaiming the land by OSPCB vide Consent order no. 872/2020-2021/RO-SPCB/ANGUL (APC & WPC) dated 25-02-2021. Entire fly ash will be filled in the above abandoned stone quarry.</p>	Complied
5.	<p>General Condition No. i CTE is required to be received in the name of M/s MGM Minerals Limited and not in the name of M/s MGM Steels Ltd. CTO is also required to be received in the name of M/s MGM Minerals Limited and not in the name of M/s MGM Minerals Ltd, Steel Division. Hazardous waste authorization letter has been accorded to M/s MGM Minerals Limited, Steel Division. It is required to be received in the name of M/s MGM Minerals Limited and not in the name of M/s MGM Minerals Ltd, Steel Division.</p>	<p>Our submission for clarification for the name in CTE, CTO & Hazardous Waste authorization: The Company MGM Minerals Limited is having two divisions as mentioned below a) MGM Minerals Limited (Steel Division) at Nimidha, Dhenkanal b) MGM Minerals Limited - (Mines Division) at Patabeda, Sundargarh. So for the sake of clarity at all Government offices, we are specifying the particulars of division for which permission is sought. So CTE, CTO & Hazardous Waste authorization for our plant have been obtained in the name of MGM Minerals Limited (Steel Division) to differentiate it from our Mining Operations.</p>	Complied

43.8.19 M/s. MGM Minerals Limited (Steel Division) has made an online application vide proposal no. IA/KA/IND/79611/2008 dated 19th July, 2021. Proposal was considered in 41st REAC meeting held on 29- 30th July 2021. Observation and recommendation of the committee are as given below:

Observations of the Committee held on 29- 30th July 2021

43.8.20 The Committee observed the following:

- i. 254 number of Trucks shall ply every day. Carrying capacity of roads is not presented in EIA report. Same shall be taken care by PP
- ii. Nimidha Village is 300 m from site and the forest is adjacent on East side of the plant. Measures to Protect Nimisha forest adjacent to the plant have not been given.

- iii. Details of proposed residential colony and its environmental impacts have not been enumerated in the EIA report. The EIA report does not mention about the colony. Cumulative impact of colony and plant has not been done.

Recommendations of the Committee held on 29- 30th July 2021

43.8.21 In view of the foregoing and after deliberations, the Committee deferred the consideration of the proposal and sought for following additional information:

- i. A seasonal nallah passes through the plant site. Scheme to protect the natural drain shall be furnished.
- ii. Traffic study shall be carried out to determine the carrying capacity of the road and submitted.
- iii. 3988 KLD water shall be sourced from Brahmani River. Permission for withdrawal of additional 2445 KLD water (or) application copy along with its present status shall be furnished.
- iv. Action plan to address the observations made in the RO report dated 4/12/2020 shall be submitted.
- v. Nimisha Village is 300 m from site and the forest is adjacent to plant site on East. Scheme to protect the forest and the village shall be furnished.
- vi. Details of residential colony and its impact on project and neighborhood shall be furnished.

43.8.22 M/s. MGM Mineral Limited (Steel Division) has submitted their ADS reply on 15/08/2021. Point wise reply of the query is given below:

S No	Query raised in 41 st EAC meeting	Reply made by PP
1	A seasonal nallah passes through the plant site. Scheme to protect the natural drain shall be furnished	<p>Seasonal Nalla protection measures:</p> <ul style="list-style-type: none"> • Flow of the Seasonal Nallah will be protected. • Plantation of 10 m width will be provided on either side of Seasonal Nallah for prevention of soil erosion. • Bridges & culverts will be provided wherever necessary. • No effluent will be discharged into Nallah. • ZLD is being maintained & will be followed after expansion also.
2	Traffic study shall be carried out to determine the carrying capacity of the road and submitted	<p>Total Traffic load during operation of expansion project load: 1,4273 PCU/day Traffic Capacity as per the IRC 73:1980 for Highways: 20000 PCU/day. Existing road is capable of taking the additional traffic load. We also would like to bring to your kind notice that expansion NH # 55 is under process. The traffic carrying capacity will further increase. All internal Road are designed for 5MSA</p>

S No	Query raised in 41 st EAC meeting	Reply made by PP
		<p>(capacity) as per IRC – 37. At the rate of 305 full laden trucks per day, annually there will be 2 MSA, which is well within the 5 MSA capacity. Slip roads will be provided on either side to avoid traffic congestion. The land required for slip roads is under NHAI. We have approached them and requested for lying of slip roads. The necessary expenditure for laying of slip roads will be borne by MGM.</p>
3	<p>3988 KLD water shall be sourced from Brahmani River. Permission for withdrawal of additional 2445 KLD water (or) application copy along with its present status shall be furnished</p>	<p>Department of water resources, Govt. of Odisha has enhanced the water permission from 1.63 cusec to 2.67 cusec, vide no 18379/ WR – MAJII-WRC-0071/2021 (OSWAS) dated 02/08/2021 to meet additional water requirement of 2545 KLD (1.04 cusec).</p>
4	<p>Action plan to address the observations made in the RO report dated 4/12/2020 shall be submitted.</p>	<p>We have submitted reply & Action Taken report (ATR) on 04/02/2021 & 13/07/2021 respectively. The ATR is mentioned at para number 43.8.18 above.</p>
5	<p>Nimisha Village is 300 m from site and the forest is adjacent to plant site on East. Scheme to protect the forest and the village shall be furnished.</p>	<p>Measures to be adopted for protection of Nimidha Village: Nimidha village is in South direction to the plant. All environmental protection measures such as ESPs (with high frequency Rigid discharged electrode), Bag filters (PTFE type), covered conveyors, dust suppression systems, pucca internal roads (designed for 5 MSA as per IRC-37), Mechanical dust sweepers will be provided and operated duly ensuring compliance with the norms. Interlocking system will be provided to ESPs and whenever the ESP fails the raw material feed to the unit will stop. Consequently, there will be no production in the unit till ESP is rectified. Net resultant GLCs after expansion will be within the NAAQS. CFBC boilers are proposed in the expansion project. Lime dosing will be provided to bring down the SOx emission to within 100mg/Nm³. Low NOx Burners with 3 stage combustion, flue gas recirculation and auto combustion system will be provided to ensure NOx emission within 100 ms/Nm³.</p>

S No	Query raised in 41 st EAC meeting	Reply made by PP
		All transport vehicles will be with PUC certification. Green belt width towards the village side is ranging from 47 to 145 m.
6	Details of residential colony and its impact on project and neighborhood shall be furnished.	Residential colony has build-up area of 7920 sq m. as the build-up area is less than 20000 sq m, it does not attract the provision of EIA notification, 2006 and its amendment thereof. Total water requirement of residential colony is 100 KLD. Domestic Waste water to be generated from plant and colony will be 80 KLD for which STP is proposed with capacity of 80 KLD. Total 50 no of vehicles (two wheeler: 40 and four wheeler: 10) increase due to colony. Municipal Solid waste: 150 kg/ day (Separate bins provide for waste collection. Plastic waste will be given to the waste cycler and Kitchen & food waste will be composted within complex premises to be used as manure. Sludge from STP: 7.5 kg/ day. (stored in HDPE bags and will be used as manure) E-waste: 0.05 T/ annum (will be given to SPCB approved vendors)

43.8.23 The proposal was reconsidered in 43rd REAC meeting held on 26-27th August 2021 based on the ADS reply submitted by the proponent on 15/08/2021.

Observations of the Committee

43.8.24 The Committee observed the following:

- i. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
- ii. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
- iii. The EAC also deliberated on the certified compliance report from RO as well as action taken report on the RO observations and found it satisfactory.

Recommendations of the Committee

43.8.25 In view of the foregoing and after deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of 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. Four Continuous Ambient Air Quality monitoring stations shall be commissioned and connected to the server by end of September, 2021.
- ii. The seasonal nallah passing through the project site shall not be disturbed. Landscaping shall be done on both embankments, with green belt covering 10 m land on both sides of the nallah. This shall be in addition to the 33% green belt development.
- iii. Green belt shall be developed in 33% of the total area all along the entire periphery of the area with a density of 2500 trees per ha. This shall include development of green belt with a width of 20 m within the project site towards Nimidha village and a buffer shall be created by planting 50 m green belt between village and Forest.
- iv. Particulate matter emission from all the stacks shall not exceed 30 mg/Nm³.
- v. Rain Water harvesting shall be implemented as per the action plan submitted in the EIA report.
- vi. 100 % solid waste generated in the facility shall be utilized. Maximum 90 days storage capacity shall be allowed inside the plant complex for solid wastes.
- vii. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
- viii. Slip roads shall be provided at the gates and along crossings on main roads to avoid traffic congestion.
- ix. Adequate truck parking area shall be provided. All vehicles entering the plant including heavy earth moving machines shall have valid PUC.
- x. 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 to the concerned Regional Office.
- xi. 6662 KLD water shall be sourced from Brahmani River. No GW abstraction shall be permitted.
- xii. Performance monitoring of all PCDs shall be carried out annually and report submitted to MoEFCC-RO.

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.

I. 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 recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- v. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.
- vii. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.
- viii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

II. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 414 (E) dated 30th May 2008; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF); S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- iv. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.
- 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.

III. 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.

IV. 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.

V. 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.

VI. 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.

VII. Emergency preparedness

- 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.

VIII. Environment Management

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will report directly to the head of the organization.

IX. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (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.

43.9 Setting up of a Greenfield Integrated Steel Plant of 0.7 MTPA with Captive Power Plant of 70 MW by **M/s. Spintech Tubes Private Limited (STPL)** at Village Dhasal, Mamudpur & Bahadurpur, Tehsil Jamuria, **District Paschim Bardhaman, West Bengal** [Online Proposal No. IA/WB/IND/78705/2018; File No. J-11011/295/2018- IA.II (I)] – **Reconsideration for grant of Environment Clearance based on ADS reply – regarding.**

43.9.1 M/s. Spintech Tubes Private Limited has made an online application vide proposal no. IA/WB/IND/78705/2018 dated 29/04/2021 along with copy of EIA 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 & nonferrous) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by Project proponent

43.9.2 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord
25/09/2018	<ul style="list-style-type: none"> • 36th meeting of EAC held on 9th October, 2018 and • 5th meeting of REAC held on 27th March, 2019 	Terms of Reference	01/05/2019

43.9.3 The project of M/s. Spintech Tubes Private Limited located at Villages Dhasal, Bahadurpur & Mamudpur, Jamuria tehsil, Paschim Bardhaman district, West Bengal is for Setting up of a Greenfield Integrated Steel Plant of 0.7 MTPA with Captive Power Plant of 70 MW.

43.9.4 Environmental Site Settings

S No	Particulars	Details	Remarks																								
i)	Total land	97.16 ha [Private :83.01 ha Govt. :14.15 ha] [Agriculture :19.53 ha Others : 77.63 ha Grazing land : Nil]	Land use – The proposed site primarily consists of Poor crop land 56.72 ha (58.4%) followed by medium agricultural land 18.61 ha (19.2%), non-agricultural land 16.59 ha (17.1%), water bodies 4.32 ha (4.4%) & agricultural land 0.92 ha (0.9%).																								
ii)	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	54.57 ha already purchased and balance land would be in possession by September 2021. Consent from the land owners have been obtained for the private land.	-																								
iii)	Existence of habitation & involvement of R&R, if any	No habitation exist at the site and hence R&R is not applicable	-																								
iv)	Latitude and Longitude of the project site	<table border="1"> <thead> <tr> <th>SN</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>23°41'15" N</td> <td>87°07'48" E</td> </tr> <tr> <td>B</td> <td>23°41'16" N</td> <td>87°08'02" E</td> </tr> <tr> <td>C</td> <td>23°41'12" N</td> <td>87°08'22" E</td> </tr> <tr> <td>D</td> <td>23°40'47" N</td> <td>87°08'14" E</td> </tr> <tr> <td>E</td> <td>23°40'46" N</td> <td>87°07'56" E</td> </tr> <tr> <td>F</td> <td>23°40'38" N</td> <td>87°07'59" E</td> </tr> <tr> <td>G</td> <td>23°40'42" N</td> <td>87°07'44" E</td> </tr> </tbody> </table>	SN	Latitude	Longitude	A	23°41'15" N	87°07'48" E	B	23°41'16" N	87°08'02" E	C	23°41'12" N	87°08'22" E	D	23°40'47" N	87°08'14" E	E	23°40'46" N	87°07'56" E	F	23°40'38" N	87°07'59" E	G	23°40'42" N	87°07'44" E	-
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F	23°40'38" N	87°07'59" E																									
G	23°40'42" N	87°07'44" E																									
v)	Elevation of the project site	106 m above MSL	-																								
vi)	Involvement of Forest land if any	Nil, no forest land involved	-																								

S No	Particulars	Details	Remarks
vii)	Water body exists within the project site as well as study area	Project site: 2 numbers of ponds and one seasonal nalla. Study area: Ajay river - 7 km in South	The seasonal rainfed nallah passing through the plant site would not be disturbed or diverted. The existing two ponds within the project area would be desilted to enhance its storage capacity and has been considered as rain water harvesting ponds.
viii)	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil	-

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

SN.	Unit Name	Configuration	Production, MTPA	
1	Iron Ore Grinding Unit	1.2 MTPA	1.186	
2	Pellet plant	1 x 1.13 MTPA	1.13	
3	Sinter plant	1 x 60 m ²	0.62	
4	DRI plant (coal based)	3 x 500 TPD	0.495	
5	Blast furnace	1 x 350 m ³	0.367	
6	Submerged Arc Furnace	1 x 12 MVA (FeCr), 1 x 12 MVA (FeMn, SiMn)	0.0466	
7	Chrome Ore Briquetting Plant	1 x 10 TPH	0.041	
8	Steelmaking Shop (SMS)	4x 25 t IF 1 x 50 t LF	1 x 50 t EAF 1 x 50 t LF	0.729
9	Caster Shop	Billet Caster - 1 x 3 strand Billet/Bloom Caster - 1 x 3 strand	0.712	
10	Mill	Bar mill - 1x0.25 MTPA Wire Rod Mill - 1x0.25 MTPA Wire drawing facility with 50% hot dip galvanizing - 0.03 MTPA Structural Mill with hot dip galvanizing - 1x 0.2 MTPA	0.699	
11	Captive Power Plant	BF gas based - 10 MW DR kiln off gas based WHRB - 37.5 MW Char & Coal based AFBC/CFBC boiler – 22.5 MW	70 MW	
12	Air Separation Plant	1 x 180 TPD	180 TPD	

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

S No	Raw Material	Quantity (TPA)	Source	Distance from site (kms)	Mode of Transportation
1	Coke	219,920	Merchant cokery in India/abroad	300	Rail-Road, Sea-Rail-Road
2	Anthracite	18,384	International market - Australia	300	Sea-Rail-Road
3	Non coking Coal	400,950	Domestic market – WB, Jharkhand region	70	Rail-Road
4	Iron ore fines	1,597,228	Procured from the Joda-Barbil, Koira, Sundargarh mines and Jharkhand region	400	Rail-Road
5	PCI coal	36,750	International market - Australia	300	Sea-Rail-Road
6	Limestone	73,287	Purchased from mines in Sundergarh district, Odisha or quarries in Jukehi-Katni-Niwar area in Central India	700	Rail-Road
7	Calcined lime	48,132	Rajasthan, MP	1400	Rail-Road
8	Dolomite	82,698	Purchased from mines in Sundergarh district, Odisha & Baradwar regions in Chattisgarh	600	Rail-Road
9	Chrome Ore Fines	37,106	Procured from the mines in Sukinda regions, Odisha	350	Rail-Road
10	Chrome Ore lump	7,236	Procured from the mines in Sukinda regions, Odisha	350	Rail-Road
11	Manganese Ore	56,968	Procured from the mines of Manganese Ore India Limited in MP & Odisha	900	Rail-Road
12	Steam coal	143,416	Domestic (WB, Odisha, Jharkhand region)	70	Rail-Road
13	Bentonite	11,724	Domestic (Rajasthan)	1400	Rail-Road
14	Quartzite	21,395	Procured from West Bengal, Jharkhand, Odisha & Bihar	180	Rail-Road

43.9.7 The water requirement for the project is estimated as 8,256 m³/day, out of which 3,480 m³/day and 3,480 m³/day of fresh water requirement will be obtained from Ajay River and Asansol Municipal Corporation respectively and the remaining requirement of 1,296 m³/day will be met from the recycled effluent of the proposed project. The permission for drawl of groundwater/surface water are obtained from Asansol Municipal Corporation vide Lr. No. 1623–LA dated 26.07.2018 and Office of Geologist, SWID & Member Secretary vide Permit No. P2213064000030000001TSE & P2213064000030000002TSE dated 10.03.2021.

43.9.8 The power requirement for the project is estimated as 141 MW, out of which 64 MW will be obtained from the Captive Power Plant and rest 77 MW will be sourced from Grid (India Power Corporation Limited).

43.9.9 Baseline Environmental Studies:

Period	March 2019 - June 2019
AAQ parameters at 8 locations	PM _{2.5} = 52.0 to 56.2 µg/m ³ PM ₁₀ = 86.1 to 93.9 µg/m ³

	SO ₂ = 7.9 to 18.4µg/m ³ NO _x = 28.5 to 45.4µg/m ³ CO = <0.1 to 0.6mg/m ³
AAQ modeling (Incremental GLC)	PM ₁₀ = 0.1 – 7.4 µg/m ³ SO ₂ = 0.1 – 14.0 µg/m ³ NO _x = 0.1 – 14.8µg/m ³
Ground water quality at 8 locations	pH: 6 to 7.6, Total Hardness: 162.7 to 493.3 mg/l, Chlorides: 34.5 to 148.4 mg/l, Fluoride: <0.1 mg/l. Heavy metals are within the limits.
Surface water quality at 8 locations	pH: 6.9 to 7.8, DO: 5.1 to 5.8 mg/l, BOD: 6.0 to 20.0 mg/l, COD:23.3 to 59.0 mg/l
Noise levels	53.5 to 71.3 Leq dB (A) for the day time and 39.1 to 64.5 Leq dB (A) for the Night time
Traffic assessment study findings	<ul style="list-style-type: none"> • Design capacity of Two Lane Roads: 15,000 PCU/day • Present traffic load at Ranisayer More i.e. confluence point of Dr. B. C. Roy Avenue and NH-2: 4,740 PCU/day. • Additional traffic load due to the project: 1,258 PCU/day. • Total traffic load in future due to project: 5,998 PCU/day (which is still within the carrying capacity of two lane roads of 15,000 PCU/day)
Flora and fauna	There are no Schedule-1 species in the study area.

43.9.10 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 generated (TPA)	Mode of Treatment / Disposal
1	Char	DRI	89,100	Used to generate power in AFBC/CFBC boiler along with purchased steam coal
2	BF Slag	Blast Furnace	1,47,000	Granulation in Slag granulation plant and sell to cement manufacturers for production of Slag cement
3	Steelmaking Slag	SMS	1,59,318	Use in construction purposes mainly for filling of low-lying areas & road sub grade preparation, Brick manufacturing
4	BF Flue Dusts	Blast Furnace	5,513	Reuse in Agglomeration
5	Mill Scales	Mills	8,339	Reuse in agglomeration
6	Ferro alloy & SiMn and FeCr Slag	Ferro alloy	39,769	Used for filing of low-lying area after recovery of metallics, road construction

S No	Type of waste	Source	Quantity generated (TPA)	Mode of Treatment / Disposal
7	Caster scale	Caster	3,645	Reuse in agglomeration
8	Caster scrap	Caster	13,140	Recycle in induction furnace
9	Fly Ash	CPP	95,788	Sell to agencies for manufacture of pozzolona cement, bricks, etc
10	Bottom Ash	CPP	23,948	Would be stored in ash pond and used for road making/sale for brick manufacturing

43.9.11 Public Consultation:

Details of advertisement given	3 rd October, 2020
Date of public consultation	4 th November, 2020
Venue	Jamuraia Town Hall, Dist. - Paschim Bardhaman, West Bengal
Presiding Officer	Dr. Abhijit Shevale, IAS, Additional District Magistrate (General), Paschim Bardhaman
Major issues raised	i. Control measures for air pollution ii. Development of local roads iii. Development of schools iv. Local employment v. Community hall vi. Water pipeline vii. Development of hospitals

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

S No	Issues	Response of PP	Year – 1 2021-22	Year – 2 2022-23	Year – 3 2023-24	Budget in Lakhs
1.	Control measures of air pollution	ESP and Bag Filter will be installed to control the air pollution level within the norms. In addition, dry fog system and water sprinkler will be installed. Budget – Rs. 90 crores	Installed with process unit equipment	Installed with process unit equipment	Installed with process unit equipment	Included
2.	Development of local roads	Repairing work of existing road of Hizalgoda (2 km) and Dhasna (1 km) will be taken up in 2 years in consultation with the District Administration.	Rs. 40 lakhs will be provided to district administration Or 1 km stretch village road of Hizalgoda and 1 km stretch for Dhasna	Rs. 20 lakhs will be provided to district administration Or Remaining 1 km stretch at Hizalgoda	--	60

S No	Issues	Response of PP	Year – 1 2021-22	Year – 2 2022-23	Year – 3 2023-24	Budget in Lakhs
		Budget – Rs. 0.6 crore				
3.	Development of schools	As suggested by ADM, STPL will contribute to the plan prepared by local administration for Hizalgoda, Dhasna & Bahadurpur villages Budget – Rs. 1.35 crore	@Rs. 15 lakhs for each village = Rs. 45 lakhs subject to approval of plan. Approved plan will be submitted to MoEFCC as a part of EC compliance	@Rs. 15 lakhs for each village = Rs. 45 lakhs subject to approval of plan. Approved plan will be submitted to MoEFCC as a part of EC compliance.	@Rs. 15 lakhs for each village = Rs. 45 lakhs subject to approval of plan. Approved plan will be submitted to MoEFCC as a part of EC compliance	135
4.	Good survival rate of trees (plantation work outside project area)	PP will take care of survival rate of the planted trees. Budget – Rs. 1.5 crore After 3 years, all maintenance will be taken care of by STPL	Rs. 50 lakhs Plantation of 10,000 trees + daily watering+ temporary employment of 10 villagers for maintenance activities	Rs. 50 lakhs Plantation of 10,000 trees + daily watering+ temporary employment of 10 villagers for maintenance activities	Rs. 50 lakhs Plantation of 10,000 trees + daily watering+ temporary employment of 10 villagers for maintenance activities	150
5.	Local employment	Local youth will be preferred as per their knowledge and skill. In addition, vocational training will be given for the employment to locals. Out of total persons to be imparted training, about 30 percent will be provided job in the plant and balance trainees will be assisted for placement through Skill Council. Budget – Rs. 3.0 crore	@100 students for Computer course, 50 persons for welding, 50 persons for electrician & 100 persons for machining/tool room course for youth of 3 villages (Hizalgoda, Dhasal & Bahadurpur)	@100 students for Computer course, 50 persons for welding, 50 persons for electrician & 100 persons for machining/tool room course for youth of 3 villages (Hizalgoda, Dhasal & Bahadurpur)	550 students for Computer course, 30 persons for welding, 30 persons for electrician & 50 persons for machining/tool room course for youth of 3 villages (Hizalgoda, Dhasal & Bahadurpur)	300
6.	Community hall	Requirement of community hall at Dhasal village will be taken up with the District Administration. Budget – Rs. 0.40 crore	Rs. 40 lakhs Fund will be provided through DM/ADM Plan will be submitted to MoEFCC as a part of EC compliance	--	--	40

S No	Issues	Response of PP	Year – 1 2021-22	Year – 2 2022-23	Year – 3 2023-24	Budget in Lakhs
			report.			
7.	Safety due to vehicle movement	Trained driver with experience will be selected. Safety training will be provided to all employed drivers. Trucks will be parked at the designated truck parking area only. Safety signboard will be displayed at all strategic locations.	--	--	--	--
8.	Concern on ground water depletion	No ground water will be used for the proposed project. However, RWH will be constructed and recharge ground water	Included in EMP cost	--	--	--
9.	Proper utilization of waste water	Waste water will be treated in the ETP and the treated water will be recycled into the plant.	Included in EMP cost	--	--	--
10.	Water pipeline	PP will join hands with Drinking water mission project initiated by the Govt by providing funds	Rs. 50 lakh for 3 villages (Bahadurpur, Dhasal & Bijaynagar) Plan will be submitted to MoEFCC as a part of EC compliance report.	Rs.50 lakh for 3 villages (Bahadurpur, Dhasal & Bijaynagar) Plan will be submitted to MoEFCC as a part of EC compliance report.	Rs.25 lakh for 3 villages (Bahadurpur, Dhasal & Bijaynagar) Plan will be submitted to MoEFCC as a part of EC compliance report.	125
11.	Development of hospitals	PP will develop a dispensary by the side of main gate of the plant with facilities like pressure check up, ECG and X-ray & facilities for routine health check up Budget – Rs.3.0 crore Recurring cost	Development of health care building	Completion of construction of health care unit	Procurement of instruments and deployment of Doctors and Nurses.	300

S No	Issues	Response of PP	Year – 1 2021-22	Year – 2 2022-23	Year – 3 2023-24	Budget in Lakhs
		of hospital including staff salary shall be borne by STPL				
12.	Noise pollution	No impact of noise due to plant activity still greenbelt will be developed along the boundary	Already covered in Sl. No. 4	--	--	--
Total, lakhs						1110

Needs Assessment

Physical Activity	Year – 1 2021-22	Year – 2 2022-23	Year – 3 2023-24	Budget
Tube well (150 nos.)	10 nos in Bahadurpur (Rs. 5 lakhs)	15 nos in Bahadurpur (Rs. 7.5 lakhs)	5 nos in Bahadurpur (Rs. 2.5 lakhs)	75
	10 nos in Chakdola (Rs. 5 lakhs)	10 nos in Chakdola (Rs. 5 lakhs)	10 nos in Chakdola (Rs. 5 lakhs)	
	20 nos in Bijaynagar (Rs. 10 lakhs)	15 nos in Bijaynagar (Rs. 7.5 lakhs)	15 nos in Bijaynagar (Rs. 7.5 lakhs)	
	5 nos in Bijipur (Rs. 2.5 lakhs)	10 nos in Bijipur (Rs. 5 lakhs)	5 nos in Bijipur (Rs. 2.5 lakhs)	
	5 nos in Nimsa (Rs. 2.5 lakhs)	10 nos in Nimsa (Rs. 5 lakhs)	5 nos in Nimsa (Rs. 2.5 lakhs)	
Installation of tube well with RO in 5 schools	2 schools in Shaldanga and 1 in Chinchuria (Rs. 60 lakhs)	1 school in Shaldanga and 1 in Chinchuria (Rs. 40 lakhs)	-	100
Installation of toilet block with sanitary water facilities in Bahadurpur 8 nos, Dhasal 7 nos and Bhuri – 5 nos	Bahadurpur and Dhasal villages - 2 Nos. in each village/funds will be provided to district administration for Swachh Bharat Mission	Bahadurpur, Bhuri and Dhasal villages - 2 Nos. in each village/funds will be provided to district administration for Swachh Bharat Mission	Bahadurpur - 4 Nos. Dhasal and Bhuri villages - 3 Nos. funds will be provided to district administration for Swachh Bharat Mission	100
Solar lighting facilities	20 numbers of solar light in Bijaynagar temple	--	--	10
Providing books and shelves to the library	750 books & 10 Nos. of shelves in Topsis village library	--	--	15
Providing collection bins	Awareness program will be conducted in the villages for segregation of wastes 2) 250 numbers of coloured bins to villagers of each of Topsis, Shaldanga & Bhuri villages plus coloured garbage collection bins at strategic location of villages	--	--	2
Installation of	20 nos in each villages	10 nos in each villages	5 nos in each villages	57

Physical Activity	Year – 1 2021-22	Year – 2 2022-23	Year – 3 2023-24	Budget
Solar street light in Dhasna, Bahadurpur, and Shaldanga – 35 nos in each villages		+ Maintenance charge	+ Maintenance charge	
Total				359

- 43.9.12 The capital cost of the project is Rs. 3,200 crores and the capital cost for environmental protection measures including cost to address the public hearing issues and needs assessment is proposed as Rs. 239.69 crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 6 crores. The employment generation from the proposed project is 6850 (Direct-1350, Indirect-5500). The detail of cost for environmental protection measures is as follows:

S No	Description of Item	(Rs. In crores)	
		Capital Cost	Recurring Cost
1.	Water Conservation and Wastewater Treatment	80.00	1.80
2.	Air Pollution Control Measure	90.00	2.03
3.	Energy Conservation	9.00	0.25
4.	Solid Waste management	22.00	0.30
5.	Rainwater Harvesting	8.30	0.10
6.	Greenbelt Development	1.00	0.02
7.	On-line Monitoring & Environmental Laboratory	14.70	1.50
8.	Addressed to Public Consultation concerns and need assessment	14.69	0.00
Total		239.69	6.00

- 43.9.13 Greenbelt will be developed in 32.06 ha which is 33 % of the total project area. A 15-100 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEFCC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 80,300 saplings will be planted and nurtured in 32.06 hectares in 5 years.
- 43.9.14 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.
- 43.9.15 Name of the EIA consultant: M/s. M. N. Dastur & Co. (P) Ltd. [S. No. 168, List of ACOs with their Certificate no. NABET/EIA/1821/RA0131, valid up to 09/09/2021; Rev. 11, June 09, 2021.
- 43.9.16 The proposal was considered by the EAC (Industry 1) in its 36th meeting held on 18-19th May, 2021. The observations and recommendations of EAC is given as below:

Observations of the Committee held on 18-19th May, 2021

- 43.9.17 The Committee noted the following:

- i. Coal Bed Methane or Producer gas shall be used as fuel in pellet plant. Producer Gas Plant details are not available in the EIA report.
- ii. Dry Blast Furnace gas cleaning has been proposed. Top Recovery Turbine (TRT) and BF Stove waste heat recovery are not proposed.
- iii. Action plan with the physical targets to address the issues raised during public hearing has not been submitted as per MoEF&CC O.M. dated 30/09/2020.
- iv. Post project PM₁₀ and NO_x concentrations in study area shall be more than 100/80 ug/m³ respectively at several stations. Control measures to reduce the same have not been elaborated.
- v. Raw material and final product will be transported by Road up to railway siding located at about 2.0 km from the project site and further it will be transported through railway. The carrying capacity of the railway siding facility has not been furnished in the EIA report.

Recommendations of the Committee held on 18-19th May, 2021

43.9.18 In view of the foregoing and after deliberations, the Committee deferred the consideration of the proposal and sought for the following additional information:

- i. Scheme for usage of Coal Bed Methane (CBM) instead of Producer Gas as a fuel shall be furnished.
- ii. Action plan for Hot Charging of billets up to 85-90 % shall be furnished. Balance rolling shall be done using Reheating Furnace operating on Light Diesel Oil (LDO).
- iii. Action plan for Steel Melting Shop (SMS) slag crushing and processing to generate aggregate for construction and fine sand for use in cement and brick making shall be furnished.
- iv. Revised action plan with physical targets to address the issues raised during public hearing as per MoEF&CC O.M. dated 30/09/2020 shall be submitted.
- v. Scheme to achieve PM emissions < 30 mg/Nm³, SO₂ and NO_x emissions less than 100 mg/Nm³ respectively from CPP shall be furnished.
- vi. Post project PM₁₀ and NO_x concentrations in study area are predicted more than 100/80 µg/m³ respectively at several stations. Control measures to reduce the same shall be submitted.
- vii. Action plan for transportation of materials through railway siding shall be explored and submitted.
- viii. PP shall submit confirmation on the following points:
 - PP shall install a state-of-the-art Waste Recycling Plant (WRP) to process various types of slags and wastes generated in the plant to recover and recycle metallics, fluxes, aggregates and boulders.
 - No ground water shall be abstracted.
 - Natural drainage system of the plant area shall not be disturbed.
 - FeCr slag shall be subjected to TCLP tests and only when Chromium level is within limit, it shall be used for construction otherwise it shall be sent to TSDF.
- ix. Scheme for, control of Dioxins/Furan emissions from sinter plants, and mercury emissions from power plants shall be submitted.
- x. PP shall provide details of specific water and power consumption post operation and energy conservation measures to be adopted in the steel plant.

43.9.19 The PP was submitted the ADS reply on 21/06/2021 raised during 36th meeting held on 18-19th May, 2021. Based on ADS reply made by PP, the Proposal was reconsidered by the

EAC (Industry 1) in its 39th meeting held on 30th June, to 1st July, 2021. The observations and recommendations of EAC is given as below:

Observations of the Committee held on 30th June- 1st July, 2021

- 43.9.20 The Committee observed following points have not been satisfactorily addressed.
- i. Scheme for dioxin and Furan controls.
 - ii. Action plan to address the public hearing issues such as drinking water supply to villages and provision of dispensary to nearby villages etc has not been covered.
 - iii. No details are made available on wet FGD System proposed for control of mercury emissions from power plant.
 - iv. Project proponent as well as the consultant was unable to explain the site details with respect to location of village(s) on eastern side of the plant and the plant boundary in that direction.

Recommendations of the Committee held on 30th June- 1st July, 2021

- 43.9.21 In view of the foregoing and after deliberations, the Committee deferred the consideration of the proposal and sought for following additional information:
- i. Scheme for dioxin and Furan controls.
 - ii. Revised action plan to address all the public hearing issues inter-alia drinking water supply to villages and provision of dispensary to nearby villages etc.
 - iii. Details on wet FGD System proposed for control of mercury emissions from power plant.
 - iv. Site details with respect to location of village(s) on eastern side of the plant and the plant boundary in that direction. Features of 1 km area around the project site shall also be submitted.

43.9.22 The PP submitted the ADS reply on 13/08/2021 and reconsidered by the EAC in its meeting held on 26-27th August, 2021. Point wise reply of the ADS points are given as below:

S No	Query raised in 39 th EAC	Reply by PP
1	Scheme for dioxin and Furan controls	<p>Dioxins and Furans are formed in the temperature region of 250°C to 450°C below the combustion zone in the bed. After that it was carried downward with the gas and condensed near to the bottom of the sinter bed. It is also formed in the wind boxes when the hot off gases cooled. The quantity of Dioxins/Furan formation depends on presence of carbon and chlorine bearing material in the sinter bed.</p> <p>Measures to reduce dioxins and furan emissions:</p> <p>a) Stable and consistent operation of sinter strand.</p> <p>b) Continuous monitoring of parameters like state of dampers, suction, opacity of the gases, speed of the sinter strand to ensure the optimal</p>

S No	Query raised in 39 th EAC	Reply by PP
		<p>running of the sinter plant and maintaining temperature in the sinter bed above 8500C.</p> <p>c) The oil content in the sinter feed for preparation of base mix will be controlled through regular measurement of oil content in the base mix and it will be maintained at <0.02%.</p> <p>d) Urea will be added in the base mix to reduce formation of dioxins and furan up to 50%.</p>
2	Revised action plan to address all the public hearing issues inter-alia drinking water supply to villages and provision of dispensary to nearby villages etc.	Revised action plan has been submitted by PP as given at para 43.9.11 above.
3	Details on wet FGD System proposed for control of mercury emissions from power plant.	<p>The total power generation will be 70 MW out of which 10 MW from BF gas based, 37.5 MW from WHRB of DR kiln and 22.5 MW from char and coal based CFBC/AFBC boiler. The fuels for the power generation are BF gas which is a clean gas and char/purchased coal. The flue gas generated in the CFBC/AFBC power plant will be taken through cyclone separator where the coarse dust will get separated and then it will be passed through 4 fields ESP to remove particulate mercury from the flue gas.</p> <p>Further the oxidised mercury will be removed in the wet flue gas desulphurization system. Moreover, the input coal quality to the power plant will be regularly monitored and the stack emission from coal-based power plant shall be monitored for mercury concentration in the flue gas to ensure it is maintained within CPCB norms.</p> <p>The wet FGD system would be based on Wet Limestone-Gypsum FGD process. Wet limestone would be sprayed in a scrubber to absorb the SO₂ from the flue gas. Gypsum, which is a stable by-product would be produced and sold externally after dewatering. The waste water from the FGD process would be treated by Activated Carbon absorption to reduce the COD level and the treated water would be recycled back to the FGD system.</p>
4	Site details with respect to location of village(s) on eastern	<p>Industrial area: 0.8 km / NW</p> <p>NH 60: 0.7 km / SE</p>

S No	Query raised in 39 th EAC	Reply by PP
	side of the plant and the plant boundary in that direction. Features of 1 km area around the project site shall also be submitted.	3 hutments at a distance of 100 m from the project site and residential units at Bahadurpur, Dhasal and Mamudpur are at a distance of about 300 m North East, 400 m East and 1.25 km West respectively, of the project site.

Observations of the Committee

43.9.23 The Committee observed the following:

- i. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
- ii. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
- iii. The EAC also deliberated on the additional information submitted by the proponent and found it satisfactory.

Recommendations of the Committee

43.9.24 In view of the foregoing and after deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of 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. Oil content in the base mix of sinter plant shall be kept below 0.02 % to control emissions of dioxins and Furan.
- ii. Wet Flue Gas Desulphurization shall be used to control mercury emissions. The effluent water from FGD plant shall be treated and reused.
- iii. 344 m³/hr water requirement shall be met from Ajay River and Asansol Municipality and Ground water abstraction shall not be permitted.
- iv. Coal Bed Methane (CBM) shall be used in the plant as fuel. Producer gas would be used only in case of shortage of CBM.
- v. PM emissions from stacks shall be less than 30 mg/Nm³.
- vi. Sinter cooler waste heat recovery system shall be provided.
- vii. Dry Blast Furnace (BF) gas cleaning shall be installed.
- viii. Top Recovery Turbine (TRT), BF Stove waste heat recovery shall be installed in BF.
- ix. Hot Charging of billets up to 85-90 % shall be done in rolling mills except structural mill where hot charge is difficult as temperature corrections are required. In structural mill heat correction shall be carried out by using Induction heaters.
- x. Electric Arc Furnaces (EAFs) and Submerged Arc Furnaces (SAFs) shall be closed type with 4th hole extraction for fume extraction.
- xi. Jigging and Briquetting plant in FeCr section shall be provided.

- xii. SMS slag shall be crushed and processed to generate aggregate construction and fine sand for use in cement and brick making.
- xiii. FeCr slag shall be subjected to TCLP tests and only when Cr is within limit it shall be used for construction otherwise it shall be sent to TSDF.
- xiv. Dioxins and Furan shall be controlled within statutory limits. Dioxins and Furan emissions shall be monitored every six months and report shall be submitted to the concerned Regional Office of the MoEF&CC.
- xv. Specific water consumption in the plant shall be less than 3.35 m³/t of steel and Specific Power consumption shall be less than 1215.7 kwh/t of steel produced.
- xvi. Based on the traffic assessment study and considering the Passenger Car Unit (PCU) per day of traffic and Million Standard Axle (MSA) load on the road (in to & out of the plant), suitable slip road connecting the project site and Highway shall be made as per laid down specifications of Indian Road Congress.
- xvii. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
- xviii. Green belt shall be developed in 33% of the total area all along the entire periphery of the plant with a density of 2500 trees per ha. This shall include development of green belt with a width of 30 m within the project site towards 3 hutments and residential units of Bahadurpur located at a distance 300m from the plant boundary.

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 recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

- v. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.
- vii. 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 31st March 2012 (applicable to IF/EAF); S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- iv. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.
- 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. 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. Emergency preparedness

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

IX. Environment Management

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.
- ii. The company shall have a well laid down environmental policy duly 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; PM₁₀, SO₂, NO_x (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.

43.10 Proposed Green Field metallurgical unit for Sponge Iron: 1,80,000 TPA (DRI Kiln: 1x550 TPD), Billets or TMT: 2,16,000 TPA along with Captive Power Plant: 20 MW by **M/s. Fuletra Steel LLP** located at Village Khijadiya, Tehsil Wankaner, **District Morbi, Gujarat** [Online Proposal No. IA/GJ/IND/222781/2021; file no: IA-J- 11011/317/2021-IA-II(IND-I)] – **Prescribing for Terms of Reference– regarding**

43.10.1 M/s. Fuletra Steel LLP has made an application online vide proposal no. IA/GJ/IND/222781/2021 dated 11.08.2021 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. ‘3 (a)’ Metallurgical industries (ferrous & non-ferrous) under Category “A” of the schedule of the EIA Notification, 2006 and was appraised at Central Level.

Details submitted by the project proponent

43.10.2 The project of M/s. Fuletra Steel LLP located at Village Khijadiya, Tehsil Wankaner, District Morbi, Gujarat is for Proposed Green Field metallurgical unit for Sponge Iron:

1,80,000 TPA (DRI Kiln: 1x550 TPD), Billets or TMT: 2,16,000 TPA along with Captive Power Plant: 20 MW.

43.10.3 Environmental site settings:

S No	Particulars	Details	Remarks
i	Total land	7.6189 ha [Private: 7.6189 ha	Land use: Industrial Purpose
ii	Existence of habitation & involvement of R&R, if any.	None	-
iii	Latitude and Longitude of the project site	Latitude: 22° 30'37.47"N Longitude: 70° 53'44.44"E	
iv	Elevation of the project site	116m above MSL	
v	Involvement of Forest land if any.	There is no involvement of forest land.	
vi	Water body exists within the project site as well as study area.	Project site: Nil Study area: Nala: Adjacent to North Boundaru of project site Natural drainage: 0.08km/East Asaoi Canal: 2.2/ North Machchhu dam: 8.4 km/ SE Water reservoir: 4 km/ NE Water dam: 2.3km/ North	
vii	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Rampara Wildlife Sanctuary is located at 4.0 km in North East.	

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

S No	Name	Proposed Units	
		Configuration	Production TPA
1	Sponge Iron	1x550 TPD	180000 TPA
2	Billets or TMT	2x108000	216000 TPA
3	Captive Power Plant	1x20 MW	20 MW

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

S No	Raw Material	Quantity required per annum	Source	Distance from site (Kms)	Mode of Transportation
1	Iron Ore / Pellet	2,70,000T	Karnataka/ Chhattisgarh/ Orissa/ Import	-	By Rail/ Road/ Sea
2	Coal	1,60,000T	Indonesia/ South Africa/ local market		By Rail/ Road/ Sea
3	Metal Scrap	2,40,000T	Local Market		By Road

43.10.6 The water requirement for the project is estimated as 3966.00 m³ /day. Water will be met from ground water abstraction.

43.10.7 The power requirement for the project is estimated as 10 MW, which will be obtained from the proposed captive power plant of 20 MW.

43.10.8 The capital cost of the project is Rs. 186.00Crores and the capital cost for environmental protection measures is proposed as Rs. 2.45 Crores. The employment generation from the proposed project will be 250 numbers.

43.10.9 Proposed Terms of Reference (**Baseline data collection period: 1st March 2021 to 31st May 2021**):

Attributes	Sampling		Remarks
	No. of stations	Frequency	
A. Air			Baseline study is completed 1 st March 2021 to 31 st May 2021 and report preparation is ongoing
a. Meteorological parameters	1 (Project Site)	Continuous for three month	
b. AAQ parameters	8 Nos.	Twice a week (24hourly)	
B. Noise	8 Nos.	Once in a study period	
C. Water			
Surface water/Ground water quality parameters	5 Nos. of Surface Water 8 Nos. of Ground Water	Once in a study period Once in a study period	
D. Land			
a. Soil quality b. Land use	8 Nos. 10 km radius study area	Once in a study period	
E. Biological a. Aquatic b. Terrestrial	10 km radius study area	Once in a study period	
F. Socio-economic parameters	10 km radius study area	Once in a study period	

- 43.10.10 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.
- 43.10.11 Name of the EIA Consultant: M/s. Shree Green Consultants [S. No. 33, Certificate No. NABET/EIA/2124/IA0072, Valid Up to 24/02/2024; Rev. 13, August 09, 2021].

Observations of the Committee

- 43.10.12 The Committee observed the following:
- i. Terms of Reference is requested for undertaking EIA study for the green field 1x550 TPD DRI plant with IF, CC and Billet caster. A 20 MW CPP is also proposed.
 - ii. 7.62 ha land is required and the same is in possession of PP. This is primarily agriculture land surrounded by thick agriculture belt. Land for 33 % green belt is proposed out of the land in possession.
 - iii. Site is situated 400 m away from the SH115. Approach road as of now is the village road.
 - iv. 3966 KLD water shall be sourced from Ground. River water is however available at a distance of 5 km from site.
 - v. Alternate sites analyzed are also agriculture lands and all sites have almost same environmental setting.
 - vi. IF, LRF, Caster sizes have not been given.
 - vii. Transportation route is not appropriate for the proposed project as the road crosses a village.

Recommendations of the Committee

- 43.10.13 In view of the foregoing and after detailed deliberations, the Committee opined that the proposed site is not environmentally compatible as it involves thick agriculture lands around the plant, nearly 4000 KLD water shall be drawn from ground in water stressed area and pre-feasibility report not giving adequate information about the project. In view of this, the Committee recommended to return the proposal in its present form to address the shortcomings enumerated at paragraph no. 43.10.12.
- 43.11 Greenfield Integrated Steel project comprising of Establishment of Iron ore beneficiation (20,00,000 TPA), Pellet Plant (15,00,000 TPA), Sponge Iron (4,62,000 TPA) (DRI Kilns: 4x350 TPD), Induction Furnace (3x30T) with matching LRF & CCM (Billets / Ingots / Hot Billets) (2,97,000 TPA), TMT Bars / Structural Steel (2,10,000 TPA) (Rolling Mill: 1x637TPD), Ferro Alloys Unit 2x9 MVA (FeSi-14,000 TPA / FeMn-50,400 TPA / SiMn-28,800 TPA / FeCr-30,000 TPA), WHRB based Power Plant –32.0 MW (4x38 TPH), FBC based Power Plant - 43 MW (1x210 TPH) & Brick Manufacturing unit (65,000 Bricks / Day)] by **M/s. Nisarg Ispat Private Limited** located at Ghotpal Village, Geedam Tehsil, **Dantewada District, Chhattisgarh** [Online Proposal No. IA/CG/IND/224398/2021; file no: J- 11011/320/2021-IA.II(IND1)] – **Prescribing of Terms of Reference– regarding**
- 43.11.1 M/s. Nisarg Ispat Private Limited has made an online application vide proposal no. IA/CG/IND/224398/2021 dated 12/08/2021 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 3 (a) Metallurgical industries (ferrous & non-ferrous) under

Category “A” of the schedule of the EIA Notification, 2006 and was appraised at Central Level.

Details submitted by the project proponent

43.11.2 The project of M/s. Nisarg Ispat Private Limited located at Ghotpal Village, Geedam Tehsil, Dantewada District, Chhattisgarh is for Greenfield Integrated Steel project comprising of Establishment of Iron ore beneficiation (20,00,000 TPA), Pellet Plant (15,00,000 TPA), Sponge Iron (4,62,000 TPA) (DRI Kilns: 4x350 TPD), Induction Furnace (3x30T) with matching LRF & CCM (Billets / Ingots / Hot Billets) (2,97,000 TPA), TMT Bars / Structural Steel (2,10,000 TPA) (Rolling Mill: 1x637TPD), Ferro Alloys Unit 2x9 MVA (FeSi-14,000 TPA / FeMn-50,400 TPA / SiMn-28,800 TPA / FeCr-30,000 TPA), WHRB based Power Plant –32.0 MW (4x38 TPH), FBC based Power Plant - 43 MW (1x210 TPH) & Brick Manufacturing unit (65,000 Bricks / Day)].

43.11.3 Environmental site settings:

SNo	Particulars	Details	Remarks	
ix.	Total Land	39.582 Ha. (97.80 Acres) [Govt. Land]	Total Land of 39.582 Ha. (97.80 Acres) is allotted by Chhattisgarh State Industrial Development Corporation Ltd. (CSIDC Ltd.)	
x.	Existence of habitation & involvement of R & R, if any	No habitation exists in project site; Hence no R & R is involved.	---	
xi.	Latitude and Longitude of the project site	Latitude and Longitude of the project site:	---	
		Point		Coordinates
		1		19° 0'18.55"N ; 81°23'34.87"E
		2		19° 0'11.18"N; 81°23'30.35"E
		3		19° 0'9.78"N; 81°23'47.86"E
		4		19° 0'11.18"N; 81°23'49.57"E
		5		19° 0'10.10"N; 81°23'54.37"E
		6		19° 0'0.49"N; 81°24'2.89"E
		7		19° 0'8.32"N; 81°24'4.86"E
		8		19°0'11.61"N; 81°24'5.04"E
		9		19° 0'13.24"N; 81°24'8.34"E
		10		19° 0'16.20"N; 81°24'7.42"E
		11		19° 0'19.64"N; 81°23'54.13"E
		12		19° 0'20.30"N; 81°23'54.39"E
		13		19° 0'21.69"N; 81°23'52.87"E
		14		19° 0'21.03"N; 81°23'52.24"E
		15		19° 0'21.18"N; 81°23'51.69"E
		16		19° 0'22.94"N; 81°23'50.21"E
		17		19° 0'23.98"N; 81°23'45.73"E
		18		19° 0'26.68"N; 81°23'41.32"E
		19		19° 0'27.31"N; 81°23'40.48"E
		20		19° 0'26.54"N; 81°23'39.54"E
21	19° 0'25.31"N; 81°23'40.26"E			

SNo	Particulars	Details		Remarks
		22	19° 0'24.36"N; 81°23'38.86"E	
		23	19° 0'24.94"N; 81°23'37.97"E	
		24	19° 0'27.30"N; 81°23'37.59"E	
		25	19° 0'28.41"N; 81°23'36.63"E	
		26	19° 0'21.15"N; 81°23'35.88"E	
		27	19° 0'17.85"N; 81°23'41.52"E	
		28	19° 0'15.98"N; 81°23'40.02"E	
xii.	Elevation of the project site	397 - 411 m above MSL		---
xiii.	Involvement of Forest land, if any	No Forest land is involved in the project site.		---
xiv.	Water body exists within the project site as well as study area	<p>Project site: The project site comprises of two parcels of excavated pits. During monsoon period, the runoff water gets filled into these two parcels of land. The excavated soil will be filled back in the two parcels of excavated pits and other areas.</p> <p>Study area: Geedam River: 1.7 Km/ SE 7-8 Village ponds located 1 - 5km from project boundary.</p>		---
xv.	Existence of ESZ/ ESA/ National Park/ Wildlife Sanctuary/ Biosphere Reserve/ Tiger Reserve/ Elephant Reserve etc. if any within the study area	Nil		---
xvi.	Forest within the study area	Karli RF: 6.0 Km/ SW, Barsur RF: 3.2 Km/ North		--
xvii.	Road Diversion	A village road (Geedam to Nangul) is passing through the project site. Road will be diverted by State Investment Promotion Board (SIPB), Govt. of Chhattisgarh.		--

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

S No	Units (Products)	Plant Configuration (Production Capacity)
1.	Iron ore Beneficiation (to produce Beneficiated ore)	1 x 2.0 MTPA
2.	Pellet Plant (to produce Pellet)	1 x 1.5 MTPA

S No	Units (Products)	Plant Configuration (Production Capacity)
3.	DRI Kilns (Sponge Iron)	4 x 350 TPD (4,62,000TPA)
4.	Induction Furnace with LRF & CCM (Hot MS Ingots / Billets)	3 x 30 T (2,97,000 TPA)
5	Rolling mill (TMT bars / Structural Steel) (85% Hot charging with Hot Billets and remaining 15% through RHF with LDO as fuel)	2,10,000 TPA
6.	Ferro Alloys Unit (FeSi / FeMn / SiMn / FeCr)	2 x 9 MVA (FeSi-14,000 TPA / FeMn-50,400 TPA / SiMn-28,800 TPA / FeCr-30,000 TPA)
7.	Brick Manufacturing Unit	65,000 Brick/ day
8.	Power Plant (75 MW)	WHRB Power Plant (4 x 38 TPH)
		CFBC Power Plant (1 x 210 TPH)
		32.0 MW
		43.0 MW

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

S No	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport	
5.	For Iron Ore Beneficiation Plant (20,00,00 TPA – throughput capacity)					
a)	Iron ore fines	20,00,000	Chhattisgarh / Orissa	~ 600 Kms.	By rail & road (through covered trucks)	
6.	For Pellet Plant (Pellets) – 15,00,000 TPA					
a)	Iron Ore Concentrate	15,50,000	Own generation	---	Through covered conveyers	
b)	Bentonite	12,000	Gujarat	~ 600 Kms.	By rail & road (through covered trucks)	
c)	Limestone	22,500	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)	
d)	Anthracite Coal	15,000	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)	
e)	LDO	20,000 KI/annum	Nearby IOCL Depot	~ 100 Kms.	By road (through Tankers)	
7.	For DRI Kilns (Sponge Iron) – 4,62,000 TPA					
a)	Pellets	6,93,000	Own generation	---	Through covered conveyers	
b)	Coal	Indian	6,00,600	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)
		Imported	3,84,384	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)

S No	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport	
c)	Dolomite	23,100	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)	
8.	For Steel Melting Shop (Billets/ Ingots/Hot Billets) – 2,97,000 TPA					
a)	Sponge Iron	3,00,000	Own generation	---	Through covered conveyers	
b)	MS Scrap / Pig Iron	45,000	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)	
c)	Ferro alloys	15,000	Own generation	---	By road (through covered trucks)	
9.	For Rolling Mill through Hot charging (Rolled Products) – 2,10,000 TPA					
a)	Hot Billets / Billets / Ingots	2,24,900	Own generation	---	----	
b)	LDO / LSHS	11500 Kl/annum	Nearby IOCL Depot	~ 100 Kms.	By road (through Tankers)	
10.	For FBC Boiler [Power Generation 1 x 43 MW]					
a)	Indian Coal (100 %)	2,82,150	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)	
OR						
b)	Imported Coal (100 %)	1,80,858	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)	
OR						
c)	Dolochar + Indian Coal	Dolochar	83,160	In plant generation	---	through covered conveyers
		Indian Coal	2,40,570	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)
OR						
d)	Dolochar + Imported Coal	Dolochar	83,160	In plant generation	---	through covered conveyers
		Imported Coal	1,39,278	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)
11.	For Ferro Alloys (2 x 9 MVA)					
7 (i)	For Ferro Silicon – 14,000 TPA					
a)	Quartz	24,300	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)	
b)	LAM coke	18,900	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)	
c)	MS Scrap / Mill scales	4,230	Inhouse Generation	---	By road (through covered trucks)	
d)	Electrode paste	360	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)	
e)	Bag filter dust	200	Own generation	---	---	
7 (ii)	For Ferro Manganese – 50,400 TPA					
a)	Manganese Ore	68,400	MOIL / OMC	~ 500 Kms.	By Rail & Road (through covered	

S No	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
					trucks)
b)	LAM coke	19,800	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
c)	Dolomite	8,100	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
d)	MS Scrap / Mill scales	7,200	Inhouse Generation	---	By road (through covered trucks)
e)	Electrode Paste	630	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
f)	Bag filter dust	1,000	Own generation	---	---
7 (iii)	For Silico Manganese –28,800 TPA				
a)	Manganese Ore	48,600	MOIL / OMC	~ 500 Kms.	By Rail & Road (through covered trucks)
b)	LAM Coke	16,200	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
c)	FeMn Slag	30,294	In house generation	---	----
d)	Dolomite	7,380	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
e)	Electrode paste	630	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
f)	Quartz	7,740	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
g)	Bag filter dust	200	Own generation	---	---
7(iv)	For Ferro Chrome – 30,000 TPA				
a)	Chrome Ore	56,700	Sukinda, Odisha Import, South Africa	~ 500 Kms. ~ 600 Kms. (from Vizag Port)	By road (through covered trucks) From Port By Road (through covered Trucks)
b)	LAM Coke	19,800	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
c)	Quartz	8,100	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
d)	MS Scrap / Mill Scale	2,700	Inhouse Generation	---	By road (through covered trucks)
e)	Magnetite / Bauxite	5,400	Chhattisgarh / Maharashtra	~ 500 Kms.	By road (through covered trucks)
f)	Electrode Paste	540	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
g)	Bagfilter dust	1,200	Own generation	---	---

43.11.6 Water required for the proposed project will be 7465 KLD. Water required for proposed project will be sourced from Geedam River (which is at a distance of 2.2 Kms. from the project site). Water drawl permission Water Resource Department, Chhattisgarh will be obtained.

43.11.7 Power required for the proposed project will be 78.5 MW and same will be sourced from Captive Power Plant (75.0 MW) and remaining (3.5 MW) from State Grid.

43.11.8 The capital cost of the project is Rs. 995.20 Crores. Employment generation from proposed project will be 350 nos. through direct employment and 500 nos. through indirect employment.

43.11.9 Proposed Terms of Reference (Baseline data collection period: **1st October 2021 to 31st December 2021**):

Attributes	Sampling		Remarks
	No. of Stations	Frequency	
H. Air			
c. Meteorological parameters	1	On hourly basis for one season	<ul style="list-style-type: none"> • Wind Speed • Wind Direction • Temperature • Relative Humidity • Rainfall
d. AAQ parameters	8	24 hourly Twice a week for 3 months (One Season)	Parameters to be Monitored: <ul style="list-style-type: none"> • PM_{2.5} • PM₁₀ • SO₂ • NO_x • CO
I. Noise	8	On hourly basis for 24 Hrs. at each station	Parameters to be Monitored: <ul style="list-style-type: none"> • Day equivalent • Night equivalent
J. Water			
c. Ground Water	8	One sample at each of the locations	Parameters will be Monitored: as per IS: 10500
d. Surface Water	3	One sample at each of the locations	Parameters will be Monitored: as per BIS: 2296
K. Land			
c. Soil quality	8	One sample at each of the locations	Parameters will be Monitored: Texture, infiltration rate, SAR bulk density, pH, Ca, Mg, Na, K, Zn, Mn
d. Land use	--	--	LU map will be prepared by concerned FAE for study area
L. Biological			

Attributes	Sampling		Remarks
	No. of Stations	Frequency	
c. Aquatic	--	Once in Season	---
d. Terrestrial	--	Once in Season	---
M. Socio economic parameters	--	Once in Season	Social Impact Assessment will be carried out by concerned FAE for study area
N. Traffic Density	--	Once in Season	Vehicular traffic study will be carried out at Transportation route.

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

43.11.11 Name of the EIA Consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd [S. No. 133, Certificate No. NABET/EIA/1922/RA0149, Valid Up to 22/03/2022; Rev. 13, August 09, 2021].

Observations of the Committee

43.11.12 The Committee observed the following:

- i. Terms of Reference (ToR) is being sought for undertaking EIA study for the Green Field Steel Plant having 2.0 MTPA IOBP; 1.5 MTPA Pellet Plant; 4x350 TPD DRI kilns; 3x30 T IF; LRF and CCM. 2x9 MVA FAP is also proposed to manufacture FeMn, FeSi, SiMn and FeCr, 32 MW WHRB, 43 MW AFBC and a brick manufacturing plant of 65000 bricks per day at Dantewada CG.
- ii. CSIDC on 31.5.2021 has given a letter to PP in facilitating setting up of this plant. This letter is generic and cannot be considered commitment from CSIDC as permitting the PP to establish the project in the proposed site.
- iii. 7465 KLD water shall be sourced from Geedam River, 2.8 km from site.
- iv. Borsur RF is 3.2 Km from site and Nagul village is 400 m from plant boundary.
- v. Jigging plant is included. There is no proposal for setting up of briquetting plant.
- vi. A road passing through the plot shall be diverted.
- vii. Tree counting and the scheme for translocation, compensatory afforestation has not been furnished.

Recommendations of the Committee

43.11.13 In view of the foregoing and after detailed deliberations, the Committee recommended to return the proposal in its present form and advised the PP to furnish enumeration of the trees at the project site, along with their height, number of trees required to be cut including details of translocation and compensatory plantation.

43.12 Establishment of Iron ore beneficiation of 1.5 MTPA capacity, Pellet Plant of 1.2 MTPA capacity, 3 x 600 TPD DRI Kilns to produce 5,94,000 TPA of Sponge Iron, 8 x 20 T of Induction Furnaces with matching LRF & CCM to produce 4,22,400 TPA of Billets / Ingots / Hot Billets, 1x1000 TPD of Rolling Mill to produce 3,30,000 TPA of TMT Bars / Structural Steel, 2 x 18 MVA of Ferro Alloy Unit to produce FeSi- 30,000 TPA / FeMn 95,040 TPA / SiMn-64,800 TPA/ FeCr-64,800 TPA/ Pig Iron- 95,040 TPA), WHRB based

Power Plant - 45 MW & CFBC based Power Plant – 20 MW by **M/s. Vrajesh Steels Private Limited** located at Kohadiya Village, Berla Tehsil, **Bemetara District, Chhattisgarh** [Online Proposal No. IA/CG/IND/224755/2021; file no: IA-J-11011/287/2021-IA-II(I)] – **Prescribing of Terms of Reference**– regarding.

- 43.12.1 M/s. Vrajesh Steels Private Limited has made an application online vide proposal no. IA/CG/IND/224755/2021, dated 14/08/2021 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToR 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) under Category “A” of the schedule of the EIA notification, 2006 and appraised at central level.

Details submitted by Project proponent

- 43.12.2 The project of M/s. Vrajesh Steels Private Limited located at Village, Berla Tehsil, Bemetara District, Chhattisgarh is for Establishment of Iron ore beneficiation of 1.5 MTPA capacity, Pellet Plant of 1.2 MTPA capacity, 3 x 600 TPD DRI Kilns to produce 5,94,000 TPA of Sponge Iron, 8 x 20 T of Induction Furnaces with matching LRF & CCM to produce 4,22,400 TPA of Billets / Ingots / Hot Billets, 1x1000 TPD of Rolling Mill to produce 3,30,000 TPA of TMT Bars / Structural Steel, 2 x 18 MVA of Ferro Alloy Unit to produce FeSi- 30,000 TPA / FeMn 95,040 TPA / SiMn-64,800 TPA/ FeCr-64,800 TPA/ Pig Iron-95,040 TPA), WHRB based Power Plant - 45 MW & CFBC based Power Plant – 20 MW.

- 43.12.3 Environmental site settings:

SNo	Particulars	Details	Remarks
iii.	Total Land	38.17 hectares. (94.32 Acres).	The land earmarked for the proposed project is Private Land partly agriculture land. Out of which 13.78 Ha. is in possession of management and acquisition of remaining land is under process.
ix.	Existence of habitation & involvement of R & R, if any	No habitation exists in project site; Hence no R & R is involved.	---
xx.	Latitude and Longitude of the project site	Latitude from 21°20'58.11"N to 21°21'17.49"N Longitude from 81°31'4.08"E to 81°31'35.99"E	---
xi.	Elevation of the project site	285 - 291 m above MSL	---
xii.	Involvement of Forest land, if any	No Forest land is involved in the project site.	---
iii.	Water body exists within the project site as well as study	Project site: Nil Study area:	---

SNo	Particulars	Details	Remarks
	area	Canal: Adjacent- West Kharun River: 3.5 Km/ SE Lor Nala: 4.5 Km/ NWW Pond Kohadiya: 0.12 Km/NW Gudheli Village Pond: 2.5 Km/ SEE Kapsada Village pond: 5.7 Km/S Mermunda Village pond: 6.5 Km/ SW Few seasonal nalas, ponds exist within the study area	
iv.	Existence of ESZ/ ESA/ National Park/ Wildlife Sanctuary/ Biosphere Reserve/ Tiger Reserve/ Elephant Reserve etc. if any within the study area	Nil	---
xv.	Forest within the study area	Nil	--

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

S No	Units (Products)		Plant Configuration	Production Capacity
1.	Iron ore Beneficiation (Beneficiated ore)		1 x 1.5 MTPA	1.50 MTPA (throughput)
2.	Pellet Plant (Pellet)		1 x 1.2 MTPA	1.2 MTPA
3.	DRI Kilns (Sponge Iron)		3 x 600 TPD	5,94,000 TPA
4.	Induction Furnace (Billets / Ingots / Hot Billets)		8 x 20 T	4,22,400 TPA
5.	Rolling Mill (TMT bars / Structural Steel) (85 % Hot charging with Hot Billets and remaining 15% through RHF with LDO as fuel)		1 x 1000 TPD	3,30,000 TPA
6.	Ferro Alloys Unit (FeSi / FeMn / SiMn / FeCr / Pig Iron)		2 x 18 MVA	FeSi-30,000 TPA / FeMn-95,040 TPA / SiMn-64,800 TPA / FeCr-64,800 TPA/ Pig Iron- 95,040 TPA
7.	Power Plant (65 MW)	WHRB Power Plant	3 x 15 MW	45 MW
		CFBC Power Plant	1 x 20 MW	20 MW

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

S No	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport	
12.	For Iron Ore Beneficiation Plant (15,00,000 TPA)					
f)	Iron ore fines	15,00,000	Chhattisgarh / Orissa	~ 600 Kms.	By rail & road (through covered trucks)	
13.	For Pellet Plant (Pellets) –12,00,000 TPA					
a)	Iron Ore Concentrate	12,00,000	Own generation / Chhattisgarh / Orissa	---	Through covered conveyers	
b)	Bentonite	9,600	Gujarat	~ 600 Kms.	By rail & road (through covered trucks)	
c)	Lime powder	48,000	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)	
d)	Anthracite Coal	52,800	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)	
	(OR) LDL /LSHS	16,000 KL	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)	
14.	For DRI Kilns (Sponge Iron) – 5,94,000 TPA					
e)	Pellets (100 %)	8,91,000	Own generation / Chhattisgarh / Orissa	---	Through covered conveyers	
	or					
f)	Iron ore (100%)	9,50,400	Barbil, Orissa NMDC, Chhattisgarh	~ 500 Kms.	By rail & road (through covered trucks)	
g)	Coal	Indian	7,72,200	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)
		Imported	4,94,200	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)
h)	Dolomite	29,700	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)	
15.	For Steel Melting Shop (Billets/ Ingots/Hot Billets) – 4,22,400 TPA					
d)	Sponge Iron	4,27,000	Own generation / Chhattisgarh	---	Through covered conveyers	
e)	MS Scrap / Pig Iron	63,000	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)	
f)	Ferro alloys	21,000	Own generation / Chhattisgarh	---	By road (through covered trucks)	
16.	For Rolling Mill through Hot charging (Rolled Products) – 3,30,000 TPA					
c)	Hot Billets / Billets / Ingots	3,49,000	Own generation	---	----	
d)	LDO / LSHS	1600 Kl/annum	Nearby IOCL Depot	~ 100 Kms.	By road (through Tankers)	
17.	For CFBC Boiler [Power Generation 20MW]					
e)	Indian Coal (100 %)	1,21,500	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)	
	OR					
f)	Imported Coal	77,760	Indonesia /	~ 600 Kms.	Through sea route,	

S No	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
	(100 %)		South Africa / Australia	(from Vizag Port)	rail route & by road (through covered trucks)
OR					
g)	Dolochar + Indian Coal	Dolochar 1,18,800	In plant generation	---	through covered conveyors
		Indian Coal 62,100	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)
OR					
h)	Dolochar + Imported Coal	Dolochar 1,18,800	In plant generation	---	through covered conveyors
		Indian Coal 39,745	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)
18.	For Ferro Alloys (2 x 18 MVA)				
6 (i)	<i>For Ferro Silicon – 30,000 TPA</i>				
a)	Quartz	45,600	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
b)	LAM coke	7,050	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
c)	Mill scales	1,050	Inhouse Generation	---	By road (through covered trucks)
d)	MS Scrap	16,800			
e)	Electrode paste	600	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
f)	Bag filter dust	1,140	Own generation	---	---
6 (ii)	<i>For Ferro Manganese – 95,040 TPA</i>				
a)	Manganese Ore	2,16,200	MOIL / OMC	~ 500 Kms.	By Rail & Road (through covered trucks)
b)	LAM coke	34,690	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
c)	Dolomite	16,150	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
d)	MS Scrap / Mill scales	14,250	In-house Generation	---	By road (through covered trucks)
e)	Electrode Paste	1,230	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
f)	Bagfilter dust	4,750	Own generation	---	---
6 (iii)	<i>For Silico Manganese – 64,800 TPA</i>				
a)	Manganese Ore	1,05,620	MOIL / OMC	~ 500 Kms.	By Rail & Road (through covered trucks)
b)	LAM Coke	24,300	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
c)	FeMn. Slag	55,080	In house generation	---	---
d)	Dolomite	14,580	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
e)	Electrode paste	1,300	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
f)	Quartz	15,550	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)

S No	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
g)	Bagfilter dust	970	Own generation	---	---
6 (iv)	<i>For Ferro Chrome – 64,800 TPA</i>				
a)	Chrome Ore	1,29,600	Sukinda, Odisha Import, South Africa	~ 500 Kms. ~ 600 Kms. (from Vizag Port)	By road (through covered trucks) From Port By Road (through covered Trucks)
b)	LAM Coke	21,380	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
c)	Quartz	11,340	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
d)	MS Scrap / Mill Scale	9,720	Inhouse Generation	---	By road (through covered trucks)
e)	Magnetite / Bauxite	10,950	Chhattisgarh / Maharashtra	~ 500 Kms.	By road (through covered trucks)
f)	Electrode Paste	1,950	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
g)	Bagfilter dust	4,150	Own generation	---	---
6 (iv)	<i>For Pig Iron – 95,040 TPA</i>				
a)	Iron ore / Sinter	1,40,180	Barbil, Odisha NMDC, Chhattisgarh	~ 500 Kms.	By road (through covered trucks)
b)	LAM Coke	46,090	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
c)	Dolomite	11,880	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
d)	Quartz	5,700	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
e)	Bag filter dust	2,850	Own generation	---	---

43.12.6 Water consumption for the proposed project will be 5,200 KLD, Water required for proposed project will be sourced from Kharun River (which is at a distance of 3.5 Kms. from the project site). Water drawl permission Water Resource Department, Chhattisgarh will be obtained.

43.12.7 Power required for the proposed project will be 101.7 MW and same will be sourced from Captive Power Plant (65 MW) and remaining 36.7 MW from State Grid.

43.12.8 The capital cost of the project is **Rs. 922Crores**. Employment generation from proposed project will be 350 nos. through direct employment and 500 nos. through indirect employment

43.12.9 Proposed Terms of Reference (**Baseline data collection period: commence 1st October, 2021 to 31st December, 2021**):

Attributes	Sampling		Remarks
	No. of Stations	Frequency	
O. Air			

Attributes	Sampling		Remarks
	No. of Stations	Frequency	
e. Meteorological parameters	1	On hourly basis for one season	<ul style="list-style-type: none"> • Wind Speed • Wind Direction • Temperature • Relative Humidity • Rainfall
f. AAQ parameters	8	24 hourly Twice a week for 3 months (One Season)	Parameters to be Monitored: <ul style="list-style-type: none"> • PM₁₀, • PM_{2.5}, • SO₂, • NO_x, • CO
P. Noise	8	On hourly basis for 24 Hrs. at each station	Parameters to be Monitored: <ul style="list-style-type: none"> • Day equivalent • Night equivalent
Q. Water			
e. Ground Water	8	One sample at each of the locations	Parameters will be Monitored: as per IS: 10500
f. Surface Water	5	One sample at each of the locations	Parameters will be Monitored: as per BIS: 2296
R. Land			
e. Soil quality	8	One sample at each of the locations	Parameters will be Monitored: Texture, infiltration rate, SAR bulk density, pH, Ca, Mg, Na, K, Zn, Mn
f. Land use	--	--	LU map will be prepared by concerned FAE for study area
S. Biological			
e. Aquatic	--	Once in Season	---
f. Terrestrial	--	Once in Season	---
T. Socio economic parameters	--	Once in Season	Social Impact Assessment will be carried out by concerned FAE for study area
U. Traffic Density	--	Once in Season	Vehicular traffic study will be carried out at Transportation route.

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

43.12.11 Name of the EIA Consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [S. No. 133, Certificate No. NABET/EIA/1922/RA0149, Valid Up to 22nd March, 2022; Rev. 13, August 09, 2021].

Observations of the Committee

- 43.12.12 The Committee observed the following:
- i. TOR is requested for undertaking EIA study for the green field steel plant consisting 1.5 MTPA IOBP; 1.2 MTPA Pellet plant; 3x600 TPD DRI kilns; 8x20 T IFs; 1000 TPD RM; 2x18 MVA SAF for FA manufacture. FeCr and Pig Iron shall also be manufactured. 45 MW WHRB and 20 MW AFBC shall also be installed at Kohadiya Village, Bemtara CG. CFBC Boiler capacity is low.
 - ii. The case came up in 41st EAC and it was returned in present form with an observations ie “the site selection for the proposed plant needs further detailing from the point of view of suitability of the site for the proposed 1 MTPA integrated steel plant”. Now, PP has submitted revised proposal along with the justification regarding the site.
 - iii. 38.17 ha land is required; 13.78 ha has been acquired and balance is under acquisition.
 - iv. Three alternate sites have been studied.

Recommendations of the Committee

- 43.12.13 In view of the foregoing and after detailed 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. Action plan to achieve zero liquid discharge shall be submitted.
 - ii. Action plan to limit the particulate matter emission from the stacks below 30 mg/Nm³ shall be furnished.
 - iii. Action plan for fugitive emission control in the plant premises shall be provided.
 - iv. Action plan for green belt development covering 33% of the plant area shall be submitted.
 - v. Action plan for rain water harvesting shall be submitted.
 - vi. Action plan for 100% slag utilization shall be submitted.
 - vii. Traffic study shall be carried out and furnished in the EIA report.
 - viii. Stock piles shall be on impervious floor, with garland drains and catch pits to trap run off material.
 - ix. 5200 KLD water shall be drawn from Kharun River 3.5 km from site. No GW shall be abstracted.
 - x. 85-90 % Hot charging shall be done. RHF for balance rolling shall operate on LDO/LSHS.
 - xi. Air cooled condensers shall be used.
 - xii. Jigging and briquetting plant shall be included in FeCr circuit.
 - xiii. FeCr waste shall be sent to TSDF if not meeting TCLP test criteria.
 - xiv. Tailing pond shall not be permitted. IOBP tailings shall be dewatered in filter press and stored for max 90 days inside the plant premises.

- 43.13 Establishment of Greenfield Cement Plant Clinker: 3.15 MTPA Cement: 2.0 MTPA Power: Captive Coal based Thermal Power Plant; 50 MW (2 X 25 MW) by **M/s. Ramco Cements Limited** at Kalvatata Village, Kolimigundla Mandal, Kurnool District, Andhra Pradesh [Online Proposal No. IA/AP/IND/224152/2021, MoEF&CC File No. IA-J-

11011/135/2017-IA-II(I)] – Amendment in the environmental clearance regarding limestone transportation – regarding.

43.13.1 M/s. The Ramco Cements Limited (TRCL) has made an online application vide proposal no. IA/AP/IND/224152/2021 dated 16/08/2021 along with Form 4 and sought for amendment in Environmental Clearance accorded by the Ministry vide File no. IA-J-11011/135/2017-IA-II(I) dated 14th January, 2019.

Details submitted by the project proponent

43.13.2 The existing project was accorded environmental clearance vide F. No. IA-J-11011/135/2017-IA-II(I) dated 14th January, 2019 issued to The M/s. Ramco Cements Limited for green field Cement plant for clinker: 3.15 MTPA, Cement: 2.0 MTPA and Coal based Captive power Plant: 50 MW (2x25 MW) at Village Kalvatala, Mandal Kolimigundla, District Kurnool, Andhra Pradesh.

- Owing to difficulty in acquisition of some private lands, M/s The Ramco Cements Ltd. proposed to relocate the cement plant site entirely in Government land near the earlier proposed site. After alienation of Government land, necessary amendment in Environmental Clearance was also obtained from MoEF&CC, New Delhi, vide F. No. J- 11011/135/2017-IA.II(I) dated 27th May, 2019 for the relocated plant site. Plant is currently under construction and expected to get commissioned by December 2021.
- The limestone requirement of this cement plant is to be met from the proposed captive mines of M/s. The Ramco Cements Ltd., and its details are provided below:

Name of the Mine	Proposed Production (MTPA)	Mine Distance from the Cement Plant(Km)	Status of EC
1.Chintalayapalle Limestone Mine	4.0	6.43 km SW	Obtained from MoEF & CC letter no. F. No J-11015/15/2017-IA.II(M) dated 23.03.2020
2.Kanakadaripalle Limestone Mine	0.1 TOR amended	6.5 Km SW	Under progress
3.Kolimigundla Limestone Mine	0.6	0.5 Km SW	Obtained from MoEF & CC letter no. F.No.J-11015/96/2017-IA.II(M) dated 19.01.2021
4.Nayanapalle Limestone Mine	1.5 TOR received	3.3 Km W	Under progress

Note: After obtaining necessary consent to operate from state pollution control board, preliminary activities have already commenced in Chintalayapalle and Kolimigundla Limestone Mines.

- Though in the initial EC of the cement plant under S.No.10 and 12, it is mentioned that “Limestone will be sourced from the Captive Limestone Mine. The limestone transportation will be done through Closed Belt Conveyor/Dumpers/Tippers”, in the subsequent amended environmental clearance of the cement plant under S.No.14, the following are mentioned:
 - “Limestone shall be transported through closed conveyor only.”

(ii) *“Dual carriage approach road to the plant site shall be constructed.”*

- Similarly, in the Environmental Clearance issued to the Chintalayapalle Limestone Mine (which is the major captive mine of 4.0 MTPA production capacity and located about 6.0km away from plant) the following is stated *“PP shall install conveyor belt from mines to cement plant and transportation is only through conveyor belt except in the case of maintenance & breakdown of conveyor belt, road transportation shall be carried out. PP shall keep the record of road transportation.”*
- However, for EC granted for Kolimigundla mines of 0.6 MTPA capacity vide reference (4) above, due to its proximity to the plant (< 0.5 km) and possibility of limestone transport from this lease to plant through dedicated road no such need arises and transport is by Tippers/ Dumpers.
- M/s The Ramco Cements Limited is committed to establishing this conveyor transportation mode from Chintalayapalle Mine outlet to the cement plant and are actively pursuing the same.
- The conveyor route has already been identified over a length of 5.33 Km and it was seen that 63% of land is owned by us and the balance 37% is Government land. Various permissions from different departments for road crossings, construction of culverts/bridges, and alienation/transfer of Government land is required.
- The process of obtaining various Government clearances and alienation of land was commenced. However, due to COVID-19 pandemic and other reasons, the alienation process and obtaining Government approval is taking more time and is expected to get completed only by November 2022. As 37% of the land in the proposed route belongs to the Government, major decisions regarding the belt conveyor are heavily dependent on the approval to be obtained from the Government for Government land and this process can be carried out only after its happening.
- All the subsequent works including final survey, establishment of bench pillar in the alignment route, detailed engineering, tender and float enquiry, ordering, equipment supply, design and drawing, civil, mechanical and electrical works all the way up to the final commissioning will take at least 3.5 years more after taking possession of Government land by November 2022. (i.e. more than 1 year from now).
- Although the cement plant and the mines will be ready for commencement by December 2021, the time delays in lying of conveyor which is not in the control of M/s. The Ramco Cements Ltd. predominantly due to the procedural delay involved in obtaining permission from various Government agencies is expected to cause a big impediment in timely commissioning of the plant as well as mines.
- **Hence, it is proposed to carry out limestone transportation from the Chintalayapalle Limestone Mine to the Cement plant through an interim road of length 6.43 Km.** Out of this, 4.42Km passes through the proponent's own land and the balance 2.01Km is a part of village cart track. Obtaining necessary approval from village panchayat and lying of this road is expected to be completed before the cement

plant commissions. In this proposed interim road, the following measures will be ensured:

- Proper laying and maintenance of the interim road.
 - Frequent dust sprinkling using mobile water sprinkler to control fugitive emission.
 - Covering of the loaded vehicle with tarpaulin.
 - Posting of traffic guard at crossing area for control of traffic.
 - Creating avenue plantation along the transport road.
 - Providing good illumination facility on either side of the road.
 - Installation of signal at road crossings.
 - Installation of speed breaker at vulnerable points for speed control.
- This interim temporary road transportation will be of less duration only and immediately after alienation of Government land for the belt conveyor route, corridor road alongside the belt conveyor will be laid quickly much before construction & commissioning of belt conveyor and used for mineral transport. Then, use of this interim road through this small stretch of village cart track will be totally avoided.
 - Hence, as the timeline for construction and commissioning of the crusher and conveyor is expected to be completed by 4.5 years, permission for road transportation is requested till such time through interim road.

43.13.3 Reason for the amendment:

Commissioning of belt conveyor is expected only after 4.5 years from now predominantly due to delay in obtaining permission from various Government agencies and subsequent planning and engineering activities. Hence, it is proposed to carry out limestone transportation from the Chintalayapalle Limestone Mine to the Cement plant through an interim road.

43.13.4 Any other amendment required in approved EC dated 27th May 2019:

S No	Reference of Approved EC	Description as per Approved EC	Description as per Proposal.	Remarks
1.	Sub-clause i of clause 14 of EC dated 27.05.2019	i. Limestone shall be transported through closed conveyor only.	i. Limestone shall be transported to the cement plant by closed belt conveyor/ Dumpers/ Tippers.	Due to delay in obtaining Govt. permission

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

43.13.6 Name of the EIA consultant: M/s. Creative Engineers & Consultants [S. No. 123, List of ACOs with their Certificate no. NABET/EIA/2023/RA 0187 and valid up to 23/03/2023; Rev. 13, August 09, 2021].

Observations of the Committee

43.13.7 The Committee observed the following:

- i. EC amendment for transportation of Lime stone from mines by road instead of conveyor is sought.
- ii. EC was issued for 3.5 MTPA clinker production and 2.0 MTPA cement with 2x25 MW WHRB on 14th Jan 2019 and amended on 27.5.2019 for shifting site. This EC was with the condition that LS shall be transported by Closed Conveyor.
- iii. EC for Mines is also having a condition that LS shall be transported to cement plant by closed conveyor.
- iv. Exemption for transportation of limestone by trucks in place of conveyors as envisaged in the EC is sought for 4.5 years as the laying of conveyor is delayed due to no receipt of permission.
- v. 4.5 MTPA of Limestone shall be transported through 6.43 Km road from mines of which about 2,00km. is village road which cannot take the traffic load of this magnitude. Nearly 411 trucks/per day of 30 T capacity shall be plying one way on these roads.
- vi. In addition, there would be additional load of more than 3.2 MTPA to evacuate the cement and Clinker by road. There is no railway siding.
- vii. It is worth noting here that the ECs for mine and cement plant were given based on the Impact Assessment done for LS transportation by belt conveyor only. EIA did not consider the impact of transportation of 4.5 MTP LS on 6 km road length including 2.00k.m. of village road. Public was also not informed of this pollution load.
- viii. At this stage amendment if any is to be considered, it should be based on proper impact assessment of revised pollution load and EMPs for road transport of 4.5 MTPA LS using large fleet of trucks.
- ix. It is mentioned that Belt conveyor is going to cost Rs300Cr. and shall require another 4.5 years to install.

Recommendations of the Committee

- 43.13.8 In view of the foregoing and after detailed deliberations, the Committee recommended to return the proposal in its present form to address the shortcomings enumerated above.

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 30th 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 PM₁₀, PM_{2.5}, SO₂, NO_x, 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 4th 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.

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 (PM₁₀ and P_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM₁₀ 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(PM₁₀ and P_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM₁₀ 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, within 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

Email

Sundar Ramanathan

Re: Final MoM of 43 EAC meeting held on 26-27th August, 2021

From : cnpandey@iitgn.ac.in

Wed, Sep 08, 2021 12:16 PM

Subject : Re: Final MoM of 43 EAC meeting held on 26-27th August, 2021

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

Dear Mr sundar,

The Finalised MoM sent by you as the file named Final MoM is approved. Please go ahead with publishing this on the Parivesh.

Thanking you,

With best wishes,

C. N. Pandey