

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

Dated: 11.08.2022

Date of Zero Draft MoM sent to EAC: 08.08.2022

Approval by Chairman: 11.08.2022

Uploading on PARIVESH: 11.08.2022

MINUTES OF THE 10th EXPERT APPRAISAL COMMITTEE (INDUSTRY-1 SECTOR) MEETING HELD DURING AUGUST 1-3, 2022

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

Time: 10:30 AM onwards

DAY-1: AUGUST 1, 2022 [MONDAY]

(i) Opening Remarks by the Chairman, EAC

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

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

(ii) Nomination of Vice Chairman of the Expert Appraisal Committee

The Expert Appraisal Committee (EAC) requested Dr. Dipankar Shome to become the Vice Chairman of the Expert Appraisal Committee. Dr. Shome agreed the request of the EAC to become the Vice Chairman for one year. The EAC welcomed to Dr. Dipankar Shome as Vice Chairman.

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

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

(iv) Confirmation of the Minutes of the 9th Meeting of the EAC (Industry-1 Sector) held during July 13-14, 2022 at MoEF&CC through Hybrid Mode.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-1 Sector) members on the minutes of its **9th Meeting of the EAC (Industry-1 Sector) held during July 13-14, 2022** conducted through Hybrid Mode, and noted that no request has been received for modifications/factual correction, in the minutes of the 9th EAC meeting for the project/activities, and confirmed the same.

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

Consideration of Environmental Clearance Proposals

Agenda No. 10.1

10.1 Greenfield project of DRI based Steel plant to produce Beneficiated Iron Ore throughput 1,200,000 TPA; Iron Ore Pellets 1,800,000 TPA; Sponge Iron 198,000 TPA; Mild Steel Billets 194,040 TPA; Rerolled Steel Products through Hot Charging and through Reheating Furnace 224,070 TPA; Ferro Alloys 20,000 TPA and/ or Pig iron 40,000 TPA from 2.5 MVA x 4Nos SAF; Captive Power of 32MW (16MW through WHRB and 16MW through CFBC); Cement (PPC, PSC or OPC) 100,000 TPA and Fly Ash Bricks 138,600TPA by M/s GR Integrated Steel Private Limited at Village- Mudpar, Tahsil-Berla, District- Bemetara, Chhattisgarh- Consideration of Environmental Clearance.

[Proposal No. IA/CG/IND/236777/2021; File No. J-11011/455/2021-IA.II(I)]

[Consultant: Anacon Laboratories Pvt. Ltd. Nagpur; Valid upto 29.03.2023]

10.1.1 M/s. GR Integrated Steel Private Ltd. has made an online application vide Proposal No IA/CG/IND/236777/2021 dated 11th July, 2022 along with copy of EIA/EMP report, Form – 2 and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical Industries, 1(d) Thermal Power Plant, 2(b) Mineral Beneficiation and 3(b) Cement plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

10.1.2 Name of the EIA consultant: M/s. Anacon Laboratories Pvt. Ltd. Nagpur [S. No. 65, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/SA 0160 valid till 29.03.2023; Rev. 24, July 05, 2022].

Details submitted by Project proponent

10.1.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
01/11/2021	48 th Meeting of Re-constituted EAC (Industry-I) held on 11 th -12 th Nov, 2021	Terms of Reference	29/11/2021	28/11/2025

10.1.4 The project of M/s. G.R. Integrated Steel Private Limited located in Village Mudpar , Tehsil Berla, District Bemetara, Chhattisgarh is proposed for a DRI based Steel plant to produce Beneficiated Iron Ore throughput 1,200,000 TPA; Iron Ore Pellets 1,800,000 TPA; Sponge Iron 198,000 TPA; Mild Steel Billets 194,040 TPA; Rerolled Steel Products through Hot Charging and through Reheating Furnace 224,070 TPA; Ferro Alloys 20,000 TPA and/ or Pig iron 40,000 TPA from 2.5 MVA x 4Nos SAF; Captive Power of 32MW (16MW through WHRB and 16MW through CFBC); Cement (PPC, PSC or OPC) 100,000 TPA and Fly Ash Bricks 138,600TPA.

10.1.5 Environmental Site Settings:

Sl.	Particulars	Details	Remarks									
i.	Total land	Total land - 45.95 (Private 32.98 Ha; Govt. Land 12.97 Ha.)	32.98 Ha. is Private land and 12.97 Ha. Land is Government land under lease from Industries Department.									
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	<p>Total 45.95 Ha land will be acquired by the M/s G R Integrated Steel Ltd. for the proposed project.</p> <table border="1"> <thead> <tr> <th>Particulars</th> <th>Area (in Ha.)</th> <th>Present Status of Land</th> </tr> </thead> <tbody> <tr> <td>Private Land</td> <td>32.98</td> <td>Out of 32.98 Ha. of Private Land, 21.85 Hectare land (47.55 % total land area) is registered in the name of company. The remaining Land 11.13 Hectare is in the process of registration. It will be done within 2 months' time.</td> </tr> <tr> <td>Govt. Land</td> <td>12.97</td> <td>Application has been made for the allotment of 12.970 Ha. Government Land (28.23 % of total land area) and the same is also in the process of allotment. (Govt of CG – SIPB have issued Assurance Letter for final allotment. PP hopes to get the land transferred in its name within 3 month time.</td> </tr> </tbody> </table>	Particulars	Area (in Ha.)	Present Status of Land	Private Land	32.98	Out of 32.98 Ha. of Private Land, 21.85 Hectare land (47.55 % total land area) is registered in the name of company. The remaining Land 11.13 Hectare is in the process of registration. It will be done within 2 months' time.	Govt. Land	12.97	Application has been made for the allotment of 12.970 Ha. Government Land (28.23 % of total land area) and the same is also in the process of allotment. (Govt of CG – SIPB have issued Assurance Letter for final allotment. PP hopes to get the land transferred in its name within 3 month time.	
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iii.	Existence of habitation & involvement of R&R, if any.	Project Site: Not any Study Area: <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Mudpar</td> <td>0.7 km</td> <td>ESE</td> </tr> </tbody> </table>			Habitation	Distance	Direction	Mudpar	0.7 km	ESE	R&R- NA																																						
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v.	Elevation of the project site	Min 286 m. – Max 301m above mean sea level			The entire area is almost flat with moderate gradient																																												
vi.	Involvement of Forest land if any.	No involvement of Forest Land.			-																																												
vii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	Study area: <table border="1"> <thead> <tr> <th>S. No</th> <th>Name of the Water Body</th> <th>Distance (KM)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Dry Water Pond (21°26'32.20"N 81°27'21.40"E)</td> <td>Adjoining</td> <td>NE</td> </tr> <tr> <td>2</td> <td>Dry Water Pond (21°26'44.31"N 81°26'19.37"E)</td> <td>1.38</td> <td>NW</td> </tr> <tr> <td>3</td> <td>Dry Water Pond (21°27'39.10"N 81°27'13.10"E)</td> <td>2.06</td> <td>N</td> </tr> <tr> <td>4</td> <td>Dry Water Pond (21°27'21.97"N 81°27'58.02"E)</td> <td>2.14</td> <td>NE</td> </tr> <tr> <td>5</td> <td>Ahiwara Talab</td> <td>8.2</td> <td>SSW</td> </tr> <tr> <td>6</td> <td>Berla Lake</td> <td>8.7</td> <td>NNE</td> </tr> <tr> <td>7</td> <td>Shivnath River</td> <td>7.1</td> <td>W</td> </tr> <tr> <td>8</td> <td>Sheetla Talab</td> <td>9.0</td> <td>SSW</td> </tr> <tr> <td>9</td> <td>Nava Lake</td> <td>9.6</td> <td>NNE</td> </tr> <tr> <td>10</td> <td>Shitala Lake</td> <td>10.1</td> <td>NNE</td> </tr> </tbody> </table>			S. No	Name of the Water Body	Distance (KM)	Direction	1	Dry Water Pond (21°26'32.20"N 81°27'21.40"E)	Adjoining	NE	2	Dry Water Pond (21°26'44.31"N 81°26'19.37"E)	1.38	NW	3	Dry Water Pond (21°27'39.10"N 81°27'13.10"E)	2.06	N	4	Dry Water Pond (21°27'21.97"N 81°27'58.02"E)	2.14	NE	5	Ahiwara Talab	8.2	SSW	6	Berla Lake	8.7	NNE	7	Shivnath River	7.1	W	8	Sheetla Talab	9.0	SSW	9	Nava Lake	9.6	NNE	10	Shitala Lake	10.1	NNE	
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viii.	Existence of ESZ/ESA / national park/	Nil			-																																												

Sl.	Particulars	Details	Remarks
	wildlife sanctuary/ biosphere reserve/tiger reserve/ elephant reserve etc. if any within the study area		

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

S. No.	Process plant	Proposed configuration of the plant	Product Name	Capacity (in TPA)
1	Iron ore Beneficiation throughput	1.2 MTPA x 1 No.	Beneficiated Iron ore	1,200,000 (throughput) 838,000 (Product)
2	Pellet plant	0.9 MTPA x 2 Nos.	Pellets	1,800,000
3	DRI Kiln (Coal Fired)	300TPD X 2 No.	Sponge Iron	198,000
4	Induction Furnace along with CCM and LRF	Induction Furnace (15Tons X 4 Nos) and LRF (15ton x 1 No)	MS Billet	194,040
5	Hot Rolling Mill			224,070
	a. Hot Charging Rolling Mill	Electrical driven Rolling Mill about 514TPD	Rerolled Steel product (Wire Rod, TMT bar, Structure Steels etc.)	169,785
	b. Billet Reheating Furnace	Reheating Furnace based Rolling Mill about 164TPD	Rerolled Steel products (Structural Steels etc.)	54,285
6	Sub-Merged Arc Furnace	Electrically operated Sub-Merged Arc Furnace 2.5MVA x 4 nos	Ferro Alloys (FeSi, FeMn, SiMn)	20,000
			And/or	
			Pig Iron	40,000
7	Captive Power Plant (Boiler and TG based)	Waste Heat Recovery Boilers (WHRB)	Captive Power	16 MW
		Circulating fluidized bed combustion (CFBC)		16 MW
8	Cement Grinding Unit	300 Tones per day	PPC, PSC or OPC	100,000
9	Fly Ash Bricks/ Block making unit	120,000 nos. per day	Fly Ash Bricks/ Blocks	138,600
<p>Note: Ferro Alloys Plant with 4 Nos. of 2.5 MVA submerged arc furnaces will be set up to produce Mn Based Ferro Alloys or Pig Iron. Production Capacity of the same is estimated to be as follows; a. Ferro Manganese: 40,000/ TPA or, b. Silico Manganese: 20,000/TPA or c. Ferro Silicon: 12,600/ TPA or, d. Pig Iron: 40,000/ TPA.</p>				

10.1.7 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.	Units	Item(Raw material)	Qty (TPA)	Source	Distance	Mode of Transportation	Total qty (TPA)
1.	For I/O Beneficiation Plant	Low grade Iron Ore	1200000	Odisha Iron Ore Mines and NMDC	500	By Rail to nearest sidings and then by Road through covered vehicles	12,00,000
2.1	For Pellet Plant	Beneficiated Iron Ore / Iron Ore fines	1,854,000	Captive production/ Odisha Iron Ore Mine and NMDC	500	Through Internal Roads/ By Rail to nearest sidings and then by Road through covered vehicles	2,075,400
2.2		Bentonite	14,400	Open Market	100	By Road through covered vehicles	
2.3		Dolomite	27,000	Open Market	100	By Road through covered vehicles	
2.4		Coal (Domestic)	180,000	SECL Coal mines	200	By Rail to nearest sidings and then by Road through covered vehicles	
3.1	For Sponge Iron Plant	Pellet/Iron Ore	316,800	Pellets will be from Captive plant/ Iron Ore will be procured from Iron Ore Mines	0	Pellets from Internal Roads/ Iron Ore from Mines through Rail and Road	5,61,627
3.2		Coal	237,600	SECL Coal mines	200	By Rail to nearest sidings and then by Road through covered vehicles	
3.3		Dolomite	6,930	Open Market	100	By Road through covered vehicles	
3.4		Refractory Material	297	Open Market	100	By Road through covered vehicles	
4.1	Induction Furnace	Sponge Iron	198,000	Captive plant	0	Internal Roads	2,41,977
4.2		Pig Iron / CI Scrap	24,494	Local market	100	By Road through covered vehicles	
4.3		Melting Scrap	4,100	Captive plant	0	Internal Roads	
4.4		Ferro Alloys	1,980	Captive plant	0	Internal Roads	
4.5		Aluminum	198	Open Market/ BALCO	100	By Road through covered vehicles	
4.6		Ramming Mass	495	Open Market	100	By Road through covered vehicles	
4.7		Steel Sheet Former	50	Open Market	100	By Road through covered vehicles	

Sl. No.	Units	Item(Raw material)	Qty (TPA)	Source	Distance	Mode of Transportation	Total qty (TPA)
4.8		LDO/LSHS Oil for Ladle Preheating	384	Open Market	100	By Road through Tankers	
4.9		Calcined Lime for Refining of Liquid Steel	9,900	Open Market	100	By Road through covered vehicles	
4.10		Fluorspar and other additives for de phos	1,980	Open Market	100	By Road through covered vehicles	
4.11		Electrode for LRF (Arc Furnace)	396	Open Market	100	By Road through covered vehicles	
5	Hot Charging Rerolling Mill	Hot Billets	173,250	Captive plant	0	Through Hot Conveyor belts	1,73,250
6.1	Reheating Furnace based Rerolling Mill	Cold MS Billets	57,750	Captive plant / Local market as per requirement	100	Internal Transfer/ By Road through covered vehicles	64,680
6.2		Coal for PG Plant for Reheating Furnace	6,930	SECL Mines/ Local Market	200	By Road through covered vehicles	
7.1	Ferro Alloys Plant (SiMn, FeMn, FeSi)	Manganese Ore	37,842	Mines at Orissa and Madhya Pradesh and Vidarbha region	500	By Road through covered vehicles	58,893
7.2		High Manganese Ore Slag	7,208	Open Market	100	By Road through covered vehicles	
7.3		Quartz	1,442	Mines in Raigarh	100	By Road through covered vehicles	
7.4		Coke/Coal/ Charcoal	10,812	Open Market	100	By Road through covered vehicles	
7.5		Dolomite	541	Mines in Bilaspur	200	By Road through covered vehicles	
7.6		Electrode Paste	541	Local Industries	100	By Road through covered vehicles	
7.7		M.S. Item.	181	Local Industries	100	Internal Transfer	
7.8		Lancing Pipe and Canister Sheet	271	Local Industries	100	By Road through covered vehicles	
7.9		Oxygen Gas	55	Local Industries	100	By Road through covered vehicles	

Sl. No.	Units	Item(Raw material)	Qty (TPA)	Source	Distance	Mode of Transportation	Total qty (TPA)
8.1	Captive CFBC Power Plant (16 MW)	Char/ Dolochar	57,750.00	captive generation in SID	0	Internally available.	87,986
8.2		Coal	30,086.00	SECL Mines	200	By Road through covered vehicles	
8.3		Fluidizing Bed Media	150.00	Open Market	100	By Road through covered vehicles	
	For Cement Grinding Unit (100% of PPC or PSC or OPC)	For 100% PPC					
9.1		Clinker	65,000	Cement plants	100	By Road through covered vehicles	100,000
9.2		Gypsum	2,500	Open Market	100	By Road through covered vehicles	
9.3		Fly Ash	32,500	Captive Plant	0	Internal Roads	
		For 100% PSC					
9.4		Clinker	32,500	Cement plants	100	By Road through covered vehicles	100,000
9.5		Gypsum	2,500	Open Market	100	By Road through covered vehicles	
9.6		Slag (15% Moisture)	65,000	Captive Plant	0	Internal Roads	
		For 100% OPC					
9.7		Clinker	95,000	Cement plants	100	By Road through covered vehicles	100,000
9.8		Gypsum	5,000	Open Market	100	By Road through covered vehicles	
10.1	For Fly Ash Brick Plant	Fly Ash	90,090	Captive Plant	0	Internal Roads	127,240
10.2		Gypsum	13,860	Open Market	100	By Road through covered vehicles	
10.3		Grounded Slag from Induction Furnace	34,650	Captive Plant	0	Internal Roads	

10.1.8 The water requirement is estimated to be 2400 KLD (Day first). The source of water will be from Shivanth River. However, during operational phase of the plant the intake water quantity will be further reduced to 1800 KLD by installation of more efficient air cooled towers in TPP and MEE. The Daily make up water shall be reduced through recycling of treated water i.e. 600 KLD. Thus G R integrated will be saving 25 % water and daily water intake will be 1800 KLPD. Application for allotment of water has already been submitted to Chhattisgarh Water Resource Department. The letter regarding allotment of surface water from SIPB, Govt. of Chhattisgarh is provided on 08.07.2022. As per the calculations, PP has reported that total 2978 CUM water is required to be recharged. It is proposed to construct 8 recharge structures of 4 m (length) X 3 m (width) X 3 m (depth) with volume of (8 x 36) 288 m³ as roof top rain water harvesting structures. A water reservoir of approx. 225000 KLD is also proposed to within the plant premises in which the rain water will be collected and utilized in lean season. This will also help in water recharge and reduction in fresh external fresh water requirement. In addition to this the company has proposed to deepening of 89 Acre pond at village Mudpar and various

rain water harvesting structures in surrounding areas. Based on 1.592 /year average rainfall total yearly rainfall will be 379381.6 cum/Year. The Rain Water Harvesting structures will be implemented before commissioning of the plant. Total 698 KLD Industrial Waste water will be treated in ETP (Capacity 750 KLD ETP). Total 600 KLD water will be recycled in the process whereas 60 KLD water will be used in Ash/Slag Quenching.

10.1.9 The total power requirement will be 59 MW out of which 32 MW will be met through captive power plant and 27 MW will be sourced through State Grid (CSPDCL). In addition to this total 2 Nos. of 3300 KVA DG sets are proposed for emergency backup.

10.1.10 Baseline Environmental Studies:

Period	Post monsoon season (15 th October, 2021 – 14 th January, 2022)
AAQ parameters at 8 Locations (min and max)	<ul style="list-style-type: none"> • PM₁₀ = 46.4 - 76.4 µg/m³ • PM_{2.5} = 16.7 - 36.3 µg/m³ • SO₂ = 5.3 - 12.0 µg/m³ • NO₂ = 11.7 - 24.2 µg/m³ • CO = 0.222 - 0.41 mg/m³
Incremental GLC level	<ul style="list-style-type: none"> • PM₁₀ = 2.4 µg/m³ (Level at 1.0 km SW and WSW Direction) • PM_{2.5} = 1.4 µg/m³ (Level at 1.0 km SW and WSW Direction) • SO₂ = 5.6 µg/m³ (Level at 1.4 km SW and WSW Direction) • NO_x = 5.2 µg/m³ (Level at 1.2 km SW and WSW Direction) • CO (DG set) = 4.01 µg/m³ (Level at 2.8 km SW and WSW Direction) • CO (traffic) = 14.3 µg/m³
Groundwater quality at 8 locations	<ul style="list-style-type: none"> • pH: 6.98-7.76, • Total Hardness: 118 - 364 mg/l, • Fluoride: 0.2-0.90 mg/l, • Chloride: 40.12 - 152.69 mg/l, • TDS: 236 - 565 mg/l, • Nitrate: 11.46 - 36.25 mg/l • Sulphate: 20.44 - 52.98 mg/l
Surface water quality at 8 locations	pH: 7.36 to 7.94 ; DO: 5.9-6.5 mg/l; BOD: BDL (DL-2)- 9.5 mg/l and COD : 7.68 – 27.64 mg/l ; TDS: 248-562 mg/l; Total Hardness: 124.8-345.6 mg/l as CaCO ₃
Noise levels Leq. (Day and Night)	Noise levels at every station were within CECB standards. Residential Area – 52.2 to 53.1 dBA for day time and 39.5 to 40.3 dBA for night time. Commercial Area – 56.5 to 60.4 dBA for day time and 41.3 – 43.6 dBA for night time. Silence Zone – 47.9 to 48.5 dBA for day time and 37.6 to 38.2 dBA for night time. Industrial area – 51.6 dBA for day time and 38.4 dBA for night time.
Traffic assessment study findings	<ul style="list-style-type: none"> • Traffic study has been conducted at NH-30 which is 2.4 km/ E from project site. • The raw material will be transported through road by covered trucks. • Present Traffic Density and No. of Vehicles Per Day

Description	No. of Trucks and Buses	No. of Passenger car	Two /three Wheeler		
Approach road	36	65	142		
<ul style="list-style-type: none"> Proposed traffic contribution due to activity of project is: The present PCU load will be increased by 2342 PCU/day after proposed project and level of service (LOS) will be: 					
ROAD	INCREASED PCU'S- STATE/ NATIONAL HIGHWAY	V (VOLUME IN PCU/DAY)	C (CAPACITY IN PCU/DAY)	MODIFIED V/C RATIO	LOS
Approach road	239+2342= 2581	2581	15000	0.17	A
* Note: Capacity as per IRC: 64-1990 Guideline for capacity for roads.					
Sl. No.	Mode of Transportation	Total Trips /day	Passenger Car Unit (PCU)	PCU	
1.	Trucks/Dumpers	756	3	2268	
2.	Car	31	1	31	
3.	Two / Three- Wheeler	50	0.5	25	
4.	Bus	6	3	18	
				2342	
<p>Conclusion: The LoS value from the proposed activity is found to project be “very good” for highway which was earlier also “very good”. So the additional load only of (784 trips/day) will add insignificant contribution on the carrying capacity of the concern roads. Hence it is concluded that it is not likely to have any significant adverse effect.</p>					
Flora and fauna	<p>Flora: Total 117 plant species were enlisted within the study area. None of reported species in study area belongs to Rare, Endangered or Threatened category.</p> <p>Fauna: Among fauna no schedule – I species observed in the study area as per Wild Life Protection Act (1972).</p>				

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

1. Saleable

Name of Waste generated	Process where the waste will be generated	Qty (TPA)	Storage	Mode of Transportation	Disposal Plan	Impact on Environment

Name of Waste generated	Process where the waste will be generated	Qty (TPA)	Storage	Mode of Transportation	Disposal Plan	Impact on Environment
Tailings (Iron Ore - 36.5% Fe)	Iron Ore beneficiation	362,000	impervious lined tanks/Pond	Through covered vehicles	Sold to nearby Cement plants.	No likely impact
Char / Dolochar (SID)	DRI Kiln	49,500	Stored in covered shed	Through covered vehicle/Conveyors	Captive use in own Captive Power plant/ Sold to power plant	Internal use in Power Plant will cause PM emission and Fly Ash Generation
Mill Scale (IF)	Induction Furnace	1,980	Stored in covered shed	By Road through covered vehicles	Captive use in own Pellet plant or Ferro Alloys Plants or sold to other pellets plant or ferro alloys plant	No likely impact
Defective Billets (IF)	Induction Furnace	1,980	Stored in covered shed	Internal Transferred through Crains	Reused in own Induction furnace/ Sold to other Mini Steel Plant	No likely impact
Defective and Miss Roll (RM)	Rolling Mill	4,331	Stored in covered shed	By Road through covered vehicles	Reused in own Induction furnace / Sold to other Mini Steel Plant	No likely impact
Mill Scale (RM)	Rolling Mill (Hot charging and BRF)	2,600	Stored in covered shed	By Road through covered vehicles	Captive use in own Pellet plant or Ferro Alloys Plants or sold to other pellets plant or ferro alloys plant	No likely impact

2. Other waste required internal disposal or to be given free of cost for beneficial purpose

Name of Waste generated	Process where the waste will be generated	Qty (TPA)	Storage	Mode of Transportation	Disposal Plan	Impact on Environment
Coal Ash from Pellet plant	Pellet Plant	63,000	Stored in covered shed	To be transported in Covered trucks or trolleys	Captive use in own Fly Ash Brick unit	If not handled properly then it may cause fugitive dust emission
Kiln						
Accretion &			Stored in	To be transported	Sold to authorized	

Name of Waste generated	Process where the waste will be generated	Qty (TPA)	Storage	Mode of Transportation	Disposal Plan	Impact on Environment
Refractory waste (SID)	DRI Kiln	300	covered shed	in Covered trucks or trolleys	recyclers	
Bottom Flue Dust Ash (SID)	DRI Kiln	39,600	Stored in covered shed	To be transported in Covered trucks or trolleys	Used for Road making and Land filing.	
Refractory & Ramming Mass waste (IF)	Induction Furnace	248	Stored in covered shed	To be transported in Covered trucks or trolleys	Sold to authorized recyclers	
Slag from Induction Furnace	Induction Furnace	35,888	Stored in covered shed	To be transported in Covered trucks or trolleys	Captive use in own Fly Ash Brick unit	
Ash from Coal firing in PG Plant (RM)	Producer Gas Plant	2,426	Stored in covered shed	To be transported in Covered trucks or trolleys	Used in own Fly Ash Brick making unit	
Slag from Ferro Alloys Plant	SAF	22,105	Stored in covered shed	To be transported in Covered trucks or trolleys	Used for Road making and Land filing.	
Fluidized Bed Material (PP)	Power Plant	150	Stored in covered shed	To be transported in Covered trucks or trolleys	Used in own Fly Ash Brick making unit	
Fly Ash from Char / Dolochar (PP)	Power Plant	37,125	Stored in Silo	Enclosed Pneumatic conveyer belt	Captive use in own Fly Ash Brick unit	
Ash From Coal (PP)	Power Plant	36,661	Stored in Silo	Enclosed Pneumatic conveyor belt	Captive use In own Cement (PSC) Unit	

HAZARDOUS WASTE GENERATION

Type of Hazardous Waste	H. W. Category	Quantity	Disposal
Waste Oil/Used Oil	5.1(as per HWM Schedule I)	6 KL/annum	Will be given to authorized recycler having authorization from competent authority.
Used Lead Acid batteries	17 (as per HWM Schedule IV)	30 Nos/Annum	Will be given to authorized recycler having authorization from competent authority

10.1.12 Public Consultation:

Details of advertisement	• The Indian Express, New Delhi (English Newspaper) date: 15.03.2022
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given	• Patrika (Hindi Newspaper) date 15.03.2022
Date of public consultation	18/04/2022
Venue	Gouthan, Village – Mudpar, Tehsil – Berla, Dist.- Bemetara Chhattisgarh.
Presiding Officer	ADM, Bemetara
Major issues raised	<ul style="list-style-type: none"> • Impact on Crops and Human Health due to Air Pollution • Concern about water pollution and water withdrawal • Concern about priority to outsiders in employment • Concern about Public, Hearing information, date time and venue, decision • Concern about impact on agriculture of surrounding. • Food processing industry to be implemented. • Vocational training to local youth. • Concern about respiratory problem due to air pollution • Concern about the contamination of Ground Water • Concern about availability of water for agriculture

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

Sl.	Particulars	Physical Status	Target of Implementation of Action Plan (Timeline)			Rs. (in lakhs)
			1 st Year	2 nd Year	3 rd Year	
1	Vocational Training Centre for Youth	<p>Location: Village Mudpar at community land provided by Village Panchayat/ Local Authority.</p> <p>Size of Building : Approx 1000 Sqft. (50 X 20 sqft)</p> <p>Quality: RCC Roof and Floor, Fly Ash Brick Wall.</p> <p>Facilities proposed in Centre: Lathe Machine, Welding Machine, Fabrication instruments, knitting machine, embroidery machine, Grinding machine to prepare Papad and Pickle, Computer, Printer etc.</p>	PP will start the work immediately after starting the construction work at site which is likely to start from April 2023.	PP will complete this work by March 2025	-	50.00
2	Development of community water resource facility for Agriculture and Domestic use	<p>Deepening of the 89 Acres Village reservoir:</p> <p>The company has submitted request to Gram Panchayat Mudpar to allow to deepen the 89 Acres reservoir which is lying idle and is reserved for reservoirs</p>	PP will start the work immediately after starting the construction work at site which is likely to start October 2023.	In the subsequent year the deepening will be done only during dry season in summer months when the pond is dried out.	Work will be completed at Village Mudpar, by June 2026.	50.00
3	Human Health / Pathology Centre Clinic	<p>Location: Village: Mudpar,</p> <p>Size of Room: 20 X 30 = 600 Sqft</p>	PP will start the work immediately	PP will complete this work by September 2025	-	35.00

Sl.	Particulars	Physical Status	Target of Implementation of Action Plan (Timeline)			Rs. (in lakhs)
			1 st Year	2 nd Year	3 rd Year	
		<p>Facility: 1 OPD chamber, 1 Lab room, 1 Patient waiting area, 1 Ambulance, First Aid and Minor OT, ECG and Sonography Machine etc/.</p> <p>Quality: RCC Roof and Floor, Fly Ash Brick Wall.</p>	after starting the construction work at site which is likely to start from October 2023.			
4	Rural Infrastructure like strengthening of Road/ Rain Water Harvesting Structures / Solar Streetlight at village Road	<p>Work :</p> <ol style="list-style-type: none"> 1. Strengthening of Road connecting Mudpar to Pendritarai approx- 2 KM 2. Solar Street light at Village Roads at Mudpar approx 50 Solar lighting poles 3. Rain Water Harvesting at Community land of Mudpar – 4 Nos. 		Starting of work of Rain Water Harvesting at Mudpar and Pendritarai from April 2024 and Completed within 1 year.	Start of work from August 2024; with Road strengthen and Solar streetlight at Pendritarai and Mudpar and completion of work by October 2025.	50.00
5	Fitness Training Centre cum Play Ground as per demand of local panchayat	<p>Location : Mudpar at community land</p> <p>Size : 0.80 Hectare</p> <p>Facility: Gym for fitness training Play Ground Fencing with trees</p> <p>Ground will be provided with nature grassing and water sprinkling system to maintain grass. Sitting Arrangement is also provided for audience.</p> <p>Quality: RCC Roof and Floor, Fly Ash Brick Wall. Ground will be provided with nature grassing and water sprinkling system to maintain grass.</p>	Selection of land and starting the work by April 2023	The work will be completed by March 2025	-	30.00
6	Farmers Training and Facilitation Centre to improve crop quality and production	<p>Location: Village Mudpar at community land provided by Village Panchayat/ Local Authority. Building Size : Approx 1000 Sqft. (50 X 20 sqft)</p> <p>Quality: RCC Roof and Floor, Fly Ash Brick Wall.</p>	-	Starting of work of from Feb 2024	The completion of work by October 2025.	35.00

Sl.	Particulars	Physical Status	Target of Implementation of Action Plan (Timeline)			Rs. (in lakhs)
			1 st Year	2 nd Year	3 rd Year	
		Facilities: Agriculture and horticulture Expert-1 person on behalf of the company. A Rapid soil testing facility/kit will be provided along with the beneficial Books on Crop Agronomy and Horticulture and Dairy etc in Hindi. Activity : Half yearly Soil sampling, and analysis and awareness to farmers for better productivity and better selection of crops. Training for efficient crop management Awareness for “Jaivik and Sustainable Agriculture”				
Total Rs.(In Lakhs)						250

10.1.13 The capital cost of the proposed project is Rs. 442 Crores and the capital cost for environmental protection measures is proposed as Rs. 41.84 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 2.4453 Crores. The employment generation from the proposed project is 1140 persons. The details of cost for environmental protection measures are as follows:

Sl.	Particulars	Capital Cost (in Crores Rs.)	Operation and Maintenance (in Crores Rs.)
	Plant and Machinery proposed for EMP		
1.	Dry ESP for DRI Kilns	10	0.5
2.	Dry ESP for Power Plant	2.5	0.125
3.	Bag Houses for the Sponge Iron Kilns	5.6	0.28
4.	Cost of Bag Houses for Induction Furnaces	1.2	0.06
5.	Cost of Bag Houses for Ferro Alloys	3	0.15
6.	Cost of Rotary Vane Wet Scrubber for Rolling Mill for Reheating Furnaces	0.6	0.03
7.	Cost of Bag Houses for Boiler Furnaces for Power Plant Coal Handling and Ash Handling Area	1	0.05
	Building and Civil works used for EMP		
8.	Cost of a Common Chimney in Sponge Iron Plant and FBC	1	0.05
9.	Cost of a Common Chimney in Induction Furnace Plant and LRF	0.25	0.0125
10.	Cost of Industrial ETP	1.5	0.075
11.	Oil Trap in the drains system	0.3	0.015
12.	Silt Arrestation Pit in Storm Water Drains	0.5	0.025
13.	Internal Road Black topping and other construction works for Paving the Floors	1	0.09
14.	Drainage system	0.75	0.0375
	Exclusive cost of works used for EMP		
15.	Cost of STP for Domestic Waste	0.6	0.03

16.	Green Belt Plantation along with Irrigation System and Pipe Line	0.65	0.0325
17.	Fugitive dust Control Spray system in Plant	0.33	0.0175
18.	Movable Vacuum cleaning system	0.35	0.03
19.	Wheel Washing System in Security area	0.1	0.007
20.	On Line stack Monitoring three sets in DRI with Power; Induction Furnace and in Rolling mill	0.21	0.01125
21.	On Line AAQ station	0.6	0.04
22.	High Volume sampling and Stack Monitoring Kits	0.4	0.04
23.	Weather Monitoring Station	0.05	0.0025
24.	Ground water Monitoring Piezo Meters	0.03	0.0015
25.	On Line Effluent Quality Monitoring System(EQMS)	0.2	0.02
26.	Carbon Emission Study	0.02	
27.	Environment Monitoring Laboratory Testing Equipment's and Chemicals and Furniture and computer systems etc.	0.6	0.05
28.	Rain Water Harvesting and Recharge system with Roof Harvesting and Rain Water Collection Tank	2.5	0.188
29.	Noise Reduction enclosure/ anti vibrating pad etc.	0.6	0.04
30.	Miscellaneous including crop protection	1.5	0.085
31.	Environmental Monitoring Cost	1.4	0.35
32.	CER works for improvement of surrounding Environment (CAPEX)	2.5	--
	Total Expenses in Crores Rs.	41.84	2.4453

10.1.14 Proposed greenbelt will be developed in 15.61 Ha. This is about 33.97 % of the total project area. Greenbelt will be proposed along the periphery of project site with local species with broad leaves and higher canopy and fast-growing tree species. Total plants 39025 nos. (@2500 sampling/Ha.) are proposed. A 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 39025 saplings will be planted and nurtured in 15.61 Ha. In 3 years.

10.1.15 It is submitted that there is no violation under EIA notification 2006/no court cases/no show cause/no direction.

Written representations:

10.1.16 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter No. GRISPL/2022-23/006 dated 02.08.2022 through email dated 03.08.2022 submitted the revised information w.r.t. to the following:

1. Water requirement and status of allotment as updated at para 10.1.8 above.
2. The final capacity of Rolling Mill has been revised to 224,070 TPA as against the granted quantity of 231,000 TPA in ToR. The same has been updated in the above summary.
3. The configuration and capacity of CCM i.e. 194,040 TPA has been clarified and the same has been updated in the above summary.
4. Justification on consideration of capacity of FeMn as 40000 TPA: The four number of 2.5 MVA furnace would be able to input 10 MVA power and with consideration of 24

- hours and 360 days it would be able to provide 86400 MVAh power which could be adequate to produce 40000 TPA FeMn.
5. Clarification on final capacity of Iron Ore Beneficiation capacities (throughput and output capacities). The same has been updated in the above summary.
 6. Revised Water Balance: Total 698 KLD Industrial Waste water will be treated in ETP (Capacity 750 KLD ETP). Total 600 KLD water will be recycled in the process whereas 60 KLD water will be used in Ash/Slag Quenching. Thus, Daily makeup water will be 1800 KLD instead of 2400 KLD. The revised water balance diagram is submitted. The same is updated at para 10.1.8 above.
 7. Revised ToR compliance pertaining to Specific and Standard ToR condition has been submitted.
 8. Identification of Source of S.P.M. in ambient air: The primary source of particulate matter in the area is due to earthen (Kachcha) rural road, which are having lot of dust on surface. Movement of Cattles and vehicles generate lot of dust emanating due to human activity and transportation. This is a common feature all over in Chhattisgarh rural area. In addition during the post-harvest time dust is generated in rural area due to harvesting, field ploughing. Many houses in rural area still use wood and Coal as fuel. The post-harvest crops residues are burnt in the agriculture field which also contribute to SPM in the air.
 9. Capacity (in m³) of the 89 acre pond to be renovated in the village: The Village pond will be deepened by at least 2.5 meter which will have around 80,000 m³ volume of water storage even after considering the pitching and storage pond lining.
 10. Inclusion of CO emission from the S.A.F. as a parameter to be monitored: Proposed SAFs will be open hood type in which the entire volume of CO emitted would automatically get combusted as emitting CO will have higher temperature than self-ignition temperature. So it would get converted into flame and CO₂. However in the online stack monitoring online CO detector will be provided as well as a working platform for stack sampling. CO monitoring facilities will be provided with alarm on shop floors.
 11. Action Plan for Rainwater Harvesting.
 12. Revised CER Activity in line with PH outcome with timeline as incorporated in para 10.1.12 above.
 13. Revised action Plan for Solid Waste Management as incorporated in para 10.1.11 above.
 14. Revised Land acquisition status as updated in para 10.1.4 above.
 15. Details of EMP cost with no. of ESP Bag Filters and other equipment's as incorporated in para 10.1.13 above.
 16. GLC Modelling details for CO as incorporated in para 10.1.10 above.
 17. The Committee deliberated the issues and found in order.

Deliberations by the Committee

10.1.17 The Committee noted the following:

1. The instant proposal is proposed for a DRI based Steel plant to produce Beneficiated Iron Ore throughput 1,200,000 TPA; Iron Ore Pellets 1,800,000 TPA; Sponge Iron 198,000 TPA; Mild Steel Billets 194,040 TPA; Rerolled Steel Products through Hot Charging and through Reheating Furnace 224,070 TPA; Ferro Alloys 20,000 TPA and/ or Pig iron 40,000 TPA from 2.5 MVA x 4Nos SAF; Captive Power of 32MW (16MW through WHRB and 16MW through CFBC); Cement (PPC, PSC or OPC) 100,000 TPA and Fly Ash Bricks 138,600TPA.
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. The total project area is 45.95 ha (Private 32.98 Ha; Govt. Land 12.97 Ha.). Out of 32.98 Ha. of Private Land. Company has already purchased 21.85 Hectare land and registered in the name of company from Private Land Owners. The remaining Private Land i.e. 11.13 Hectare is in the process of registration. Further, application has been made for the allotment of 12.970 Ha. Government Land and the same is also in the process of allotment. (Assurance Letter for allotment of Govt. land 12.970 Ha. received from State Investment Promotion Board (SIPB), Govt. of Chhattisgarh.
6. The water requirement is estimated to be 2400 KLD which will be sourced from Surface Water i.e. from Shivnath River and rain water collection tank. However, during operational phase of the plant the intake water quantity will be further reduced to 1800 KLD by installation of more efficient air cooled towers in TPP and MEE.
7. Many lakes and Shivnath river exists within the study area. The water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
8. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.

9. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP that the green belt development shall be completed within a year.
10. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
11. 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.
12. The EAC also deliberated on the written submissions submitted by the proponent and found it satisfactory.
13. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
14. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee:

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

A. Specific Conditions

- i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

- iii. Tailings from Iron Ore beneficiation plant shall be dewatered in filter press and no slime /tailing pond shall be permitted.
- iv. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
- v. Solid waste utilization
 - PP shall install a fly ash brick making plant.
 - PP shall recycle/reuse 100 % solid waste generated in the plant.
 - Used refractories shall be recycled as far as possible.
- vi. Submerged Arc Furnace shall be of closed type with 4th hole extraction system.
- vii. 85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil or LSHS as a fuel.
- viii. Dust emission from stacks shall be less than 30 mg/Nm³.
- ix. The water requirement after the proposed project is estimated as 2400 m³/day and shall be met from Shivnath river and rainwater harvesting. As committed, during operational phase of the plant the intake water quantity shall be further reduced to 1800 KLD by installation of more efficient air cooled towers in TPP and MEE. No ground water abstraction is permitted.
- x. Shivnath river and no. of lakes exists within the study area. The water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
- xi. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
- xii. Air cooled condensers shall be used in the CFBC Power plant.
- xiii. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- xiv. Three tier Green Belt shall be developed in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Plantation in gaps in the green belt shall be done by the PP during the present monsoon period and maintenance shall be done in the following years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- xv. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
- xvi. The PP shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report.
- xvii. The coal dust to be measured at coal handling areas, ball mills, furnace charging areas through personal and area monitoring and to be compared and it should be within 2 mg/m³, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.
- xviii. The proposed project shall be designed as "Zero Liquid Discharge" Plant. There shall be no discharge of effluent from the plant. Sanitary waste water shall be treated in STP.
- xix. CEMS shall be provided on all process stacks and the signal shall be received in plant control room for central control of APCDs installed in the plant.
- xx. All roads in the plant shall be paved and industrial vacuum cleaners shall be used regularly

- to clean roads to reduce fugitive emissions
- xxi. As committed, 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.
 - xxii. Ultralow NO_x burner with three stage combustion, flue gas recirculation and auto combustion control system shall be used.
 - xxiii. The Efforts shall be made to achieve power consumption of 70 units/tone of Portland-Pozzolona cement (PPC) and 95 units/tone of cement for Ordinary Portland Cement and thermal energy consumption of 670 kcal/Kg of Clinker.
 - xxiv. Dioxin and furans shall be monitored twice a year during co-processing of hazardous waste and report shall be submitted to the Regional Office of the MoEF&CC.
 - xxv. DeSO_x system shall be provided dry type. NO_x level shall be maintained below 600 mg/Nm³ by using best available technology.
 - xxvi. Petcoke dosing shall be controlled automatically to control SO₂ emission from chimney within the prescribed limits.
 - xxvii. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
 - xxviii. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
 - xxix. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

B. General conditions:

I. Statutory compliance:

- i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be

obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and 10th May, 2016 (in case of Co-processing Cement) as amended from time to time; 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 recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- v. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.
- vii. 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.
- ix. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- x. Provide Low NOX burners as primary measures and SCR /NSCR technologies as secondary measure to control NOX emissions.

III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and 10th May, 2016 (in case of Co-processing Cement) as amended from time to time; 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 recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs 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.
- vi. Tyre washing facilities shall be provided at the entrance of the plant gates.
- vii. Water meters shall be provided at the inlet to all unit processes in the steel plants.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

- i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.
- ii. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
- iii. Restrict Gas flaring to < 1%.
- iv. Provide LED lights in their offices and residential areas.
- v. Ensure installation of regenerative/recuperative type burners on all reheating furnaces.
- vi. The project proponent makes efforts to achieve power consumption less than 65 units/ton for Portland Pozzolona Cement (PPC) and 85 units/ton for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.

VI. Waste management

- i. Used refractories shall be recycled.
- ii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

- i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.
- ii. Project proponent shall submit a study report on De-carbonization program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage after offsetting strategies.

Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms 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. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

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

- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
- x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Agenda No. 10.2

- 10.2 **Installation of Clinker Grinding Unit with Cement Production Capacity of 4.0 MTPA (2 x 2.0 MTPA) and DG Set of 4.0 MW (2 x 2.0 MW) capacity in phased manner, located at Village: Lakhanpur, Tehsil: Bara, District: Prayagraj, Uttar Pradesh by M/s. Eco Plus Cement Industries Pvt. Ltd. - Consideration of Environmental Clearance.**

**Proposal No. IA/UP/IND/175464/2020; File No. J-11011/244/2020-IA.II(I)
[Consultant: J.M. EnviroNet Pvt. Ltd.; Valid upto 07.02.2023]**

- 10.2.1 M/s. Eco Plus Cement Industries Pvt. Ltd. has made an online application vide proposal no. IA/UP/IND/175464/2020 dated 6th July, 2022 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 under Category “B” of the schedule of the EIA Notification, 2006 and attracts the general condition as the Interstate Boundary of Uttar Pradesh - Madhya Pradesh falls at a distance of 1.0 km from the Proposed Project site. Therefore, the project will be treated as Category ‘A’ and appraised at Central Level by the EAC.

- 10.2.2 Name of the EIA consultant: M/s J.M. EnviroNet Pvt. Ltd. [Sl. No. 41, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0186; valid upto 07.02.2023, Rev. 24, July 05, 2022].

Details submitted by Project proponent

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

Date of application	Consideration	Details	Date of accord	Validity of ToR
03/10/2020	24 th meeting of Re - constituted EAC held on 27-29 th October, 2020	Terms of reference	03/12/2020	02/12/2024

- 10.2.4 The project of M/s. Eco Plus Cement Industries Pvt. Ltd. located in Lakhanpur Village, Bara Tehsil, Prayagraj District, Uttar Pradesh State is for installation of Clinker Grinding Unit with cement production capacity of 4.0 Million TPA (2 x 2.0 MTPA) and D.G. Sets (4.0 MW).

- 10.2.5 Environmental Site Settings:

S. No.	Particulars	Details	Remarks
i.	Total land	25.829 ha; which is Private land.	Land use: Agriculture land as per revenue record but not used for the agricultural

S. No.	Particulars	Details	Remarks																																							
			purpose as it is stony in nature.																																							
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Agreement for sale for the total project area has been made with the land owners.	-																																							
iii.	Existence of habitation & involvement of R&R, if any.	<p>Project Site: No habitation exists within the project site and R & R is not applicable.</p> <p>Study Area:</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Tala</td> <td>0.5 km</td> <td>SE direction</td> </tr> <tr> <td>Shivrajpur</td> <td>0.7 km</td> <td>NE direction</td> </tr> <tr> <td>Lakhanpur</td> <td>1.0 km</td> <td>NW direction</td> </tr> <tr> <td>Hinauti Pandey</td> <td>1.3 km</td> <td>ESE direction</td> </tr> <tr> <td>Gadra</td> <td>1.4 km</td> <td>NNW Direction</td> </tr> <tr> <td>Benipur</td> <td>1.5 km</td> <td>NNE Direction</td> </tr> <tr> <td>Shankargarh</td> <td>1.5 km</td> <td>ESE direction</td> </tr> <tr> <td>Chundwa</td> <td>2.4 Km</td> <td>SSE Direction</td> </tr> <tr> <td>Manpur</td> <td>3.0 Km</td> <td>NE Direction</td> </tr> </tbody> </table> <p>There are approx. 73 villages in 10 km radius study area.</p>	Habitation	Distance (km)	Direction	Tala	0.5 km	SE direction	Shivrajpur	0.7 km	NE direction	Lakhanpur	1.0 km	NW direction	Hinauti Pandey	1.3 km	ESE direction	Gadra	1.4 km	NNW Direction	Benipur	1.5 km	NNE Direction	Shankargarh	1.5 km	ESE direction	Chundwa	2.4 Km	SSE Direction	Manpur	3.0 Km	NE Direction	-									
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v.	Elevation of the project site	133 m to 143 m above mean sea level.	-																																							
vi.	Involvement of Forest land if any.	No Forest Land is involved in the project site.	-																																							
vii.	Water body exists within the project	Project site: No water body exists within the project site.	-																																							

S. No.	Particulars	Details	Remarks																		
	site as well as study area	<p>Study area: Following water bodies falls within 10 km radius:</p> <table border="1"> <thead> <tr> <th>Water body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Pardawan Talab</td> <td>8.0 km</td> <td>NW</td> </tr> <tr> <td>Baghla Jhil</td> <td>6.5 km</td> <td>NNE</td> </tr> <tr> <td>Loni Nalla</td> <td>5.5 km</td> <td>WSW</td> </tr> <tr> <td>Jhagrabaria Nalla</td> <td>7.5 km</td> <td>NNE</td> </tr> <tr> <td>Barasot Nalla</td> <td>7.5 km</td> <td>NW</td> </tr> </tbody> </table>	Water body	Distance	Direction	Pardawan Talab	8.0 km	NW	Baghla Jhil	6.5 km	NNE	Loni Nalla	5.5 km	WSW	Jhagrabaria Nalla	7.5 km	NNE	Barasot Nalla	7.5 km	NW	
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viii.	Existence of ESZ / ESA / national park / wildlife sanctuary / biosphere reserve / tiger reserve / elephant reserve etc. if any within the study area.	<p>Nil.</p> <p>Details of Reserve & Protected Forests are as follows:</p> <ul style="list-style-type: none"> ○ Lakhampur RF (0.25 km in NW direction) ○ Khatkari RF (1.75 km in West direction) ○ Jubai Pahar RF (1.75 km in North direction) ○ Baghla RF (4.0 km in North direction) ○ Ledar RF (4.0 km in WNW direction) ○ Lakhnuti RF (4.5 km in NNW direction) ○ OSA Reserve Forest (6.5 km in ESE direction) ○ Reserve Forest (7.5 km in WNW direction) ○ Reserve Forest (7.0 km in WNW direction) ○ Janwan RF (8.5 km in WNW direction) ○ Baraha Kathar RF (8.0 km in SW direction) 	-																		

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

S. No.	Plant Equipment / Facility	Proposed Unit	
		Configuration	Capacity
1.	Cement (Million TPA)	Cement Mill: 2 x 300 TPH	4 MTPA (2 x 2.0)
2.	D.G. Sets (MW)	-	4 MW (2 x 2.0)

Two types of cement will be manufactured i.e., Ordinary Portland Cement (OPC) and total production capacity will be 4.0 MTPA in both the phases.

10.2.7 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	Quantity (MTPA)	Source	Distance / Mode of Transportation
		Total		
1.	Clinker	2.50	Cement Plants situated in Satna District	200 km / Rail & Road
2.	Gypsum	0.14	Haldia port from local vendors.	Rail & Road

S. No.	Name of Raw Material	Quantity (MTPA)	Source	Distance / Mode of Transportation
		Total		
3.	Fly ash	1.36	Prayagraj Power Generation Company Ltd., Khan Semra, Tehsil- Bara, Uttar Pradesh	5.5 km/ Road
4.	Coal	0.0154	Singrauli Coal Field	180 km / Road

10.2.8 The total water requirement for the proposed Grinding Unit will be 105 KLD and that will be sourced from Ground water. Permission for drawl of groundwater has been obtained from Ground Water Department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of Uttar Pradesh vide NOC no. NOC011010 dated 25th October, 2021 (valid up to 30th September, 2026). The water requirement for the greenbelt development / plantation is 200 KLD in which 9 KLD fresh will be sourced from ground water (out of 105 KLD), 15 KLD from STP treated water and 176 KLD will be sourced from Rain water harvesting.

10.2.9 The power requirement for the project is estimated as 26.8 MW, which will be sourced from Uttar Pradesh State Electricity Board & D.G. Set (For emergency back-up).

10.2.10 Baseline Environmental Studies:

Period	Post - Monsoon Season (October to December, 2019)
AAQ parameters at 08 locations (Min.& Max.)	<ul style="list-style-type: none"> • PM_{2.5} - 24.6 to 46.2 µg/m³ • PM₁₀ - 55.2 to 85.3 µg/m³ • SO₂ - 5.2 to 14.3 µg/m³ • NO_x - 10.1 to 26.9 µg/m³ • CO - BDL to 0.85 mg/m³
Incremental GLC level	<ul style="list-style-type: none"> • PM₁₀ - 1.23 µg/m³ (approx. 2km in East Direction)
Ground water quality at 08 locations	<ul style="list-style-type: none"> • pH - 7.42 to 7.82 • Total Hardness - 162.40 to 319.87 mg/l • Chlorides - 49.63 to 112.34 mg/l • Fluoride - 0.53 to 0.89 mg/l
Surface water quality at 07 locations	<ul style="list-style-type: none"> • pH - 7.47 to 7.64 • DO - 6.4 to 6.9 mg/l • BOD - 4.9 to 6.8 mg/l • COD - 18.7 to 26.4 mg/l
Noise levels at 08 locations	Noise Level During Day Time - 52.7 to 54.0 Leq dB (A) Noise Level During Night Time - 40.9 to 44.0 Leq dB (A)
Traffic assessment study findings	<ul style="list-style-type: none"> ✓ Traffic survey has been conducted for 24 hours at NH - 35 (Old NH - 76) which is approximately 1 km in North direction from the plant site. ✓ Transportation of raw material, fuel & finished product will be done asper details given below: <ul style="list-style-type: none"> ○ Fly ash - 100% by road,

	<ul style="list-style-type: none"> ○ Gypsum - 50% by road & 50% by rail ○ Coal - 100% by road ○ Clinker - 50% by road & 50% by rail <p>✓ Existing PCU is 193.92 PCU/hr on NH - 35 (Old NH - 76) and existing level of service (LOS) is:</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH - 35 (Old NH-76)</td> <td>193.92</td> <td>1200</td> <td>0.1616</td> <td>A</td> </tr> </tbody> </table> <p>✓ After installation of Railway siding: PCU load after proposed project will be 193.92(Existing) + 75.5 (Additional) PCU/hr. and level of service (LOS) will be:</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH - 35 (Old NH-76)</td> <td>193.92+ 75.5= 269.42</td> <td>1200</td> <td>0.224</td> <td>B</td> </tr> </tbody> </table> <p>* Capacity as per IRC- 106-1990 Guide line for capacity for roads. Conclusion: The level of service will be “B” i.e., Very Good after including additional traffic due to proposed project (after installation of railway siding).</p>	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	NH - 35 (Old NH-76)	193.92	1200	0.1616	A	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	NH - 35 (Old NH-76)	193.92+ 75.5= 269.42	1200	0.224	B
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Flora and fauna	There is no species recorded in the study area during field survey; which comes in Schedule- I according to (IWPA) Indian Wildlife Protection Act, 1972.																				

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

Particular	Type of Waste	Waste	Quantity	Treatment / Disposal
Grinding Unit	Solid Waste	Dust	-	Dust collected from various APCE totally recycled into the process.
	Solid Waste	Scrap	400 to 500 tonnes / annum	It is segregated, stored and sold to vendors.
STP	Solid Waste	STP Sludge	0.5 tonnes/annum	Used as manure for greenbelt development / plantation.
Plant Maintenance	Hazardous Waste	Used / Spent Oil (5.1), Contaminated cotton rags or other cleaning materials (Cat 33.2) (0.1 Tonne/annum), and	~10 KL/annum	It will be generated as per schedule - I of hazardous and other wastes (Management and Transboundary movement) Rules, 2016.

Particular	Type of Waste	Waste	Quantity	Treatment / Disposal
		Empty barrels (100 Nos/annum)		
	E - Waste	Used electrical equipment, Cables, CFL/ LED Lights	0.10 Tonnes / Annum	Sold to registered vendors as per E - Waste Management Rules, 2016.
	Other Waste	Used Lead acid batteries	~ 100 Nos. / Annum	It will be stored in the designated storage area Sold to registered vendors as per Battery waste Management Rules, 2020.
MSW	Dry	MSW	10kg/day	It will be disposed after segregating into biodegradable and non-biodegradable waste.

10.2.12 Public Consultation:

Details of advertisement given	Public Hearing Notice published in Newspapers “Amar Ujala” dated 15 th July, 2021 & “Economic Times” dated 15 th July, 2021
Date of Public Consultation	20 th August, 2021 at 11:00 am
Venue	Project Site Village - Lakhanpur, Tehsil - Bara, District - Prayagraj (Uttar Pradesh)
Presiding Officer	ADM, Administration, Prayagraj
Major issues raised	<ul style="list-style-type: none"> ○ Employment ○ Environment ○ Land ○ Socio-economic Development ○ Plantation ○ Water ○ CSR Activity ○ Health

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

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement			Cost (In Lacs)
			01 st Year	02 nd Year	03 rd Year	

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement			Cost (In Lacs)
			01 st Year	02 nd Year	03 rd Year	
1.	Plantation	Plantation at common land, govt. buildings, schools and village roads & Distribution of local species saplings in nearby village	2100 nos.	-	-	15
			(Village Lakhanpur, Shivrajpur and Shankargarh)			
2.	Health	Renovation of Primary Health centre	(Village Bundaya)	(Village Lakhanpur)	-	15
		Provide medical equipment.				5
3.	Infrastructure Facilities	Construction & renovation of school	1 no.	1 no.	-	20
			(Village Bundaya)	(Village Lakhanpur)		
		Maintenance of internal village Road	(Village Lakhanpur)	(Village Bundaya)	0	15
		Construction of Toilets in villages	5 nos. (Village Lakhanpur)	5 no. (Village Bundaya)	10 no. (Village Shankargarh)	10
		Maintenance of road from Highway to Plant gate				22
4.	Water	Clean drinking water facilities & Establishment of Pyaau will be provided at public building (like Govt. School, Hospital and Panchayat Office etc.)	5 no. (Village Lakhanpur)	5 no. (Village Bundaya)	5 no. (Village Shivrajpur)	30
The total cost allocated for the Socio-developmental activities which will be part Environment Management Plan						132
<p><i>Note: *The above action plan will be implemented during project implementation phase. Zero date will start from the date of construction start for the proposed project.</i></p> <p><i>**The activities given in the above table are excluding the Pollution Control and mitigation measures which are included in EMP Cost [i.e., Capital Cost: Rs. 15 Crores & Annual Recurring Cost: Rs. 0.40 Crores/annum]</i></p> <p><i>*** Company is proposed to adopt the nearby villages i.e., Village Lakhanpur, Shivrajpur & Shankargarh and allocated Rs. 1.32 Crores for develop them a model village.</i></p>						

10.2.13 The capital cost of the Proposed project is Rs. 422 Crores and the capital cost for environmental protection measures is proposed as Rs. 15 Crores. The annual recurring cost

towards the environmental protection measures is proposed as Rs 0.40 Crores. The employment generation from the proposed project is about 500 persons during Implementation phase and about 300 persons during operational phase. The details of cost for environmental protection measures are as follows:

S. No.	Particular	Cost in Crores	
		Capital Cost	Recurring Cost
i.	Air Pollution Control	9.0	0.2
ii.	Water Pollution Control and Water management	1.0	0.01
iii.	Noise Pollution Control	0.5	0.01
iv.	Environment monitoring	1.0	0.01
v.	Greenbelt Development and plantation	2.0	0.1
vi.	Others (Housekeeping and Vacuum Sweeping Machine, Environmental Awareness Program)	1.5	0.07
Total		15	0.40
vii.	Addressal of Public Consultation Concern	0.95	-
viii.	Details of adoption of Village (Shivrajpur, Tala and Lakhanpur)	-	-

10.2.14 Greenbelt will be developed in 8.52 ha which is about 33% of the total project area. A 30 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 21,300 saplings will be planted and nurtured in 8.52 Hectares in three years.

10.2.15 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.

Written Submission:

10.2.16 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter No. EPCIPL/MOEF/ADDITIONS INFO./2022 dated 01.08.2022 through email dated 01.08.2022 submitted the revised information w.r.t. to the following:

1. Revised Water Balance with respect to greenbelt water requirement as updated at para 10.2.8 above.
2. Revised Socio-economic development Plan & adoption of villages as incorporated in para 10.1.12 above.
3. Undertaking for non-involvement of forest land in the project area vide letter dated 01.08.2022 staying that total land area required for the proposed Grinding Unit will be 25.829 ha; and no forest land is involved in the project area.
4. Correction in source of Gypsum for the project as updated in para 10.2.7 above.
5. Type of cement to be manufactured as updated in para 10.2.6 above.
6. The Committee deliberated the issues and found in order.

Deliberations by the Committee

10.2.17 The Committee noted the following:

1. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
2. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
3. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
4. Pardawan Talab, Baghla Jhil, Loni Nalla, Jhagrabaria Nalla and Barasot Nalla exists within the study area of project site.
5. Greenbelt will be developed in 8.52 ha which is about 33% of the total project area. Total no. of 21,300 saplings will be planted and nurtured in 8.52 Hectares in three years.
6. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
7. There are approx. 73 villages in 10 km radius study area. As per the deliberation of EAC, PP committed that three villages, namely Lakhanpur, Shivrajpur & Shankargarh will be adopted and will develop the villages into model villages in next 10 years with an allocated budget of Rs. 1.32 Crores.
8. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the green belt development shall be completed in a year.
9. 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.
10. The EAC also deliberated on the written submissions submitted by the proponent and found it satisfactory.
11. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
12. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not

tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

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

A. Specific conditions:

- (i) The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (iii) The activities and the action plan proposed by the project proponent to address the issues raised during public hearing and socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.
- (iv) Pardawan Talab, Baghla Jhil, Loni Nalla, Jhagrabaria Nalla and Barasot Nalla exists within the study area project site. A robust Conservation scheme to protect these water bodies; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.
- (v) As committed by the PP, three villages, namely Lakhanpur, Shivrajpur & Shankargarh will be adopted and will develop the villages into model villages in next 10 years with an allocated budget of Rs. 1.32 Crores.
- (vi) The Efforts shall be made to achieve power consumption of 70 units/tonne of Portland-Pozzolona cement (PPC) and 95 units/tonne of cement for Ordinary Portland Cement and thermal energy consumption of 670 kcal/Kg of Clinker.
- (vii) Three tier Green Belt shall be developed in a time frame of one year covering at least 33% of the total project area with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Additional green belt shall be provided north and south east where villages – Tala and Shivrajpur are located within 1 km from

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

- (viii) The project proponent shall develop a robust monitoring plan for greenbelt development.
- (ix) 105 KLD water will be required for proposed project; which is proposed to be sourced from Ground water. Necessary permission shall be obtained from the Competent Authority in this regard. PP shall make efforts for gradual phasing out of ground water consumption and switching to alternative source of water.
- (x) Project proponent should ensure that ground water assessment is carried out once in two years by a reputed institute and the report of same shall be submitted to IRO, MoEF&CC.
- (xi) 100% water consumed annually shall be harvested and recharged with monitoring facilities.
- (xii) Rain water harvesting system as committed in EIA/EMP shall be implemented.
- (xiii) Hydrological study/ ground water leaching study shall be carried out to observe the contamination of Ground water and appropriate mitigation measures shall be adopted.
- (xiv) All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
- (xv) Slip roads shall be provided at the gates and along crossings on main roads.
- (xvi) All internal and connecting road to the Highway shall be black topped/ concreted with suitable load in term of Million Standard Axle (MSA) as per IRC guidelines.
- (xvii) Performance monitoring of pollution control equipment shall be taken up yearly and compliance status in this regard shall be reported to the concerned Regional Office of the MoEF&CC.
- (xviii) Dioxin and furans shall be monitored twice a year during co-processing of hazardous waste and report shall be submitted to the Regional Office of the MoEF&CC.
- (xix) Stack emissions shall be less than 30 mg/Nm³.
- (xx) The proposed project shall be designed as "Zero Liquid Discharge" Plant. There shall be no discharge of effluent from the plant. Sanitary waste water shall be treated in STP.
- (xxi) DeSOx system shall be provided dry type. NOx level shall be maintained below 600 mg/Nm³ by using best available technology.
- (xxii) Petcoke dosing shall be controlled automatically to control SO₂ emission from chimney within the prescribed limits.
- (xxiii) The PP shall implement a project specific AQMP (Air Quality Management Plan) with Best practices; shall determine priority pollutants. Pollution prevention approaches to reduce, eliminate, prevent pollution at its source, should be considered, like (but not limited to) are to use less toxic raw materials or fuels, use a less-polluting industrial process, and to improve the efficiency of the process.
- (xxiv) The PP shall develop a control strategy and mitigation plan that incorporates the pollution control measures. The Clean Air practices shall be adopted like mechanical collectors, wet scrubbers, fabric filters (baghouses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation.
- (xxv) A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

- (xxvi) All the recommendations made in the risk assessment report shall be implemented and compliance status in this regard shall be furnished to the Regional Office of the MoEF&CC along with the six monthly compliance report.
- (xxvii) The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
- (xxviii) All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

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 with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and 10th May, 2016 (in case of Co-processing Cement) as amended from time to time; and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and

- three outside the plant area at an angle of 120°each), covering upwind and downwind directions.
- iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
 - v. 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.
 - vi. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
 - vii. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.
 - viii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
 - ix. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.
 - x. Provide wind shelter fence and chemical spraying on the raw material stock piles; and
 - xi. Provide Low NOX burners as primary measures and SCR /NSCR technologies as secondary measure to control NOX emissions.
 - xii. Have separate truck parking area and monitor vehicular emissions at regular interval.
 - xiii. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport
 - xiv. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.

III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25thAugust, 2014 (Cement) and subsequent amendment dated 9thMay, 2016 (Cement) and 10th May, 2016 (in case of Co-processing Cement) as amended from time to time; and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall regularly monitor ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off
- v. Water meters shall be provided at the inlet to all unit processes in the cement plant.

- vi. The project proponent shall make efforts to minimize water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

- i. Waste heat recovery system shall be provided for kiln and cooler.
- ii. The project proponent makes efforts to achieve power consumption less than 65 units/ton for Portland Pozzolona Cement (PPC) and 85 units/ton for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.
- iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.
- iv. Provide the project proponent for LED lights in their offices and residential areas.

VI. Waste management

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

VII. Green Belt

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

VIII. Public hearing and Human health issues

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

- iv. The project proponent shall monitor cement dust exposures in clinker, grinding and packing areas using personal and area air samplers and to compare the results of cement dust (8 hours' average exposures) with permissible limits for Portland cement is 10 mg/m³, Total dust containing less than 1% quartz. If concentration found higher suitable pollution control mitigation measures to be employed.

IX. Environment Management

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

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO₂, 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. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
- x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Agenda No. 10.3

- 10.3 Proposed metallurgical unit Steel TMT Rebars and Wire Rods manufacturing rolling mill, DRI Manufacturing plant along with Captive Power Plant of 25 MW turbine and 50 TPH steam from Waste Heat Recovery Boiler facility, located at Survey. No. 652/P1; Welspun City, Village Varsamedi, Tal Anjar Dist.: Kachchh, Gujarat by M/s. Anjar TMT Steel Private Limited– Consideration of Environmental Clearance.**

[Proposal No. IA/GJ/IND/221430/2021; File No. J-11011/289/2021-IA.II(I)]

[Consultant: Shree Green Consultants; Valid upto: 24.02.2024]

- 10.3.1** M/s. Anjar TMT Steel Pvt. Ltd has made an online application vide proposal no. IA/GJ/IND/221430/2021 dated 5th July 2022 along with copy of EIA/EMP report, Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants Under Category ‘A’ of the schedule of the EIA Notification, 2006) and appraised at Central Level.
- 10.3.2** Name of the EIA consultant: M/s. Shree Green Consultants [Sl. No. 30, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2124/IA0072; Valid up to 24-02-24, Rev. 24, July 05, 2022].

Details submitted by Project proponent

- 10.3.3** The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
02/08/2021	42 nd meeting of EAC held on 12-13 th August 2021	Terms of Reference	31/08/2021	30/8/2025

- 10.3.4** The project of M/s Anjar TMT Steel Limited located in Varsamedi Village, Anjar Tehsil, Kutch District Gujarat State is for setting up of a new steel manufacturing unit comprising of TMT Bars + Wire Rods- 4,50,000 TPA, 500 TPD DRI Kiln along with Captive Power Plant consisting of 25 MW turbine and 50 TPH steam from Waste Heat Recovery Boiler facility.

- 10.3.5** Environmental Site Settings:

Sr. No.	Particulars	Details	Remarks
1.	Total land	7.1592 ha \approx 7.16 ha (Private)	Land use: Industrial
2.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	M/s. Anjar TMT Steel Limited has taken the land from M/s. Welspun Steel Limited on lease basis and lease deed has been executed for the same on 06.05.2021.	Land documents is submitted with the application

Sr. No.	Particulars	Details	Remarks																					
3.	Existence of habitation & involvement of R&R, if any.	Project site: - Nil Study Area: - <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Varsamedi</td> <td>2.8</td> <td>North-East</td> </tr> </tbody> </table>	Habitation	Distance	Direction	Varsamedi	2.8	North-East	There is no R&R activity involved															
Habitation	Distance	Direction																						
Varsamedi	2.8	North-East																						
4.	Latitude and Longitude of all corners of the project site.	<table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>23° 6'39.79"N</td> <td>70° 5'6.31"E</td> </tr> <tr> <td>B</td> <td>23° 6'39.74"N</td> <td>70° 5'2.15"E</td> </tr> <tr> <td>C</td> <td>23° 6'53.74"N</td> <td>70° 5'2.01"E</td> </tr> <tr> <td>D</td> <td>23° 6'53.98"N</td> <td>70° 5'18.13"E</td> </tr> <tr> <td>E</td> <td>23° 6'49.30"N</td> <td>70° 5'18.33"E</td> </tr> <tr> <td>F</td> <td>23° 6'49.19"N</td> <td>70° 5'6.32"E</td> </tr> </tbody> </table>	Point	Latitude	Longitude	A	23° 6'39.79"N	70° 5'6.31"E	B	23° 6'39.74"N	70° 5'2.15"E	C	23° 6'53.74"N	70° 5'2.01"E	D	23° 6'53.98"N	70° 5'18.13"E	E	23° 6'49.30"N	70° 5'18.33"E	F	23° 6'49.19"N	70° 5'6.32"E	
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A	23° 6'39.79"N	70° 5'6.31"E																						
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E	23° 6'49.30"N	70° 5'18.33"E																						
F	23° 6'49.19"N	70° 5'6.32"E																						
5.	Elevation of the project site	35 m above mean sea level																						
6.	Involvement of Forest land if any.	No forest land is involved																						
7.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	Project site: There is no water body present within project site Study area: <table border="1"> <thead> <tr> <th>Water body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Sang River</td> <td>0.6Km</td> <td>South</td> </tr> <tr> <td>Churwa river</td> <td>3.55 km</td> <td>NNE</td> </tr> <tr> <td>Pond</td> <td>3.0 Km</td> <td>NNE</td> </tr> <tr> <td>Pond</td> <td>3.7 km</td> <td>NNW</td> </tr> <tr> <td>Shinai Lake</td> <td>5.66 km</td> <td>SSW</td> </tr> </tbody> </table>	Water body	Distance	Direction	Sang River	0.6Km	South	Churwa river	3.55 km	NNE	Pond	3.0 Km	NNE	Pond	3.7 km	NNW	Shinai Lake	5.66 km	SSW				
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8.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil																						

10.3.6 PP reported that the unit has obtained CTE from the SPCB for manufacturing of 4,00,000 TPA TMT Bars vide CTE outward No. 597345 dated 07/08/2021. Accordingly construction work was started at project site. The unit applied for CCA vide application dated 02.07.2022 and the provisional CCA has been obtained vide Consent Order No. WH-120111 dated 14.07.2022 and valid upto 01.07.2022. The PP informed that aforesaid project did not qualified to obtain EC under the provisions of EIA Notification, 2006 so EC was not obtained. EAC noted that PP has not provided such information in the EIA/EMP Report.

10.3.7 Implementation status of the existing CTE: The production has not started yet.

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

Sr. No.	Plant Equipment/ Facility	Proposed Units	
		Configuration	Capacity
1	TMT Bars + Wire Rod	1 X 4,50,000 TPA	4,50,000 TPA
2	DRI (sponge Iron)	1 X 500 TPD	1,65,000 TPA
3	WHRB	1 x 50 TPH	50 TPH
4	Turbine	1 x 25 MW	25 MW

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

Sr. No.	Raw Material	Quantity (TPA)	Source	Distance from site (Kms)	Mode of Transportation
1	Iron Ore / Pellet	3,00,000 T	Karnataka / Chhattisgarh / Orissa/Import	1500	By Rail/Road/Sea
2	Non-Coking Coal	2,00,000 T	Indonesia/South Africa	7800	By Sea
3	Dolomite	20,000 T	Rajasthan/Import	600	By Road/Sea
4	Billet (Carbon and Stainless Steel)	4,75,000 T	WSL/other manufacturers	0.5	Roller Table/Road/Rail
5	Epoxy Resin	1200 T	Domestic supplier	8	By road

10.3.10 The water requirement for the project is estimated as 3861.00 m³/day (3,761.00 m³/day Industrial + 100.00 m³/day Domestic). The water will be sourced from sister concern unit M/s. Welspun India Limited from its 30 MLD Sewage treatment plant after recycling & reuse of municipal sewage generated from the nearby Municipalities. The total wastewater generation from the proposed project will be 1020.00 KLD. It will be sent to M/s. Welspun India Limited for treatment and reuse as WIL having ETP with capacity of 24 MLD, Physical, Chemical and Biological Oxidation plant, UF and RO system of having the capacity to recycle & reuse 23 MLD of wastewater

10.3.11 The power requirement for the project is estimated as 12 MW, which will be obtained from the proposed captive power plant of 25 MW.

10.3.12 Baseline Environmental Studies:

Period	1st March 2021 to 31st May 2021
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Period	1 st March 2021 to 31 st May 2021																														
AAQ parameters at 8 Locations	<ul style="list-style-type: none"> PM2.5 = 24.26 – 55.07 µg/m³ PM10 = 40.06 – 89.36 µg/ m³ SO2 = 9.57 – 27.40 µg/m³ NOx = 15.11 – 38.57 µg/m³ CO = 0.1 – 0.57 mg/m³, 																														
Incremental GLC level	<ul style="list-style-type: none"> PM10 = 1.77 µg/m³ (Level at 1.0 km in North-east Direction) SO2 = 1.58 µg/m³ (Level at 1.0 km in North-east Direction) NOx = 1.62 µg/m³ (Level at 1.0 km in North-east Direction) 																														
Ground water quality at 8 locations	<ul style="list-style-type: none"> pH: 7.05 – 7.68, Total Hardness: 310–1020 mg/l, Chlorides: 241–2129 mg/l, Fluoride: <0.1 mg/l, Heavy metals [Lead: <0.01 mg/l, Mercury: <0.005 mg/l, Nickel: <0.01 mg/l, Arsenic: <0.01 mg/l, Zinc: <0.5 mg/l] 																														
Surface water quality at 8 locations	<ul style="list-style-type: none"> pH: 6.66 – 7.86, DO: 4.8 – 5.3 mg/l and BOD: < 5 – 15.7 mg/l. COD: < 5 – 40.5 mg/l 																														
Noise levels Leq (Day and Night)	43.5 to 78.7 for the day time and 36.9 to 68.7 for the Night time																														
Traffic assessment study findings	<ul style="list-style-type: none"> Traffic study has been conducted at NH-8A & SH-6 which is approximately 2.0 and 5 km from the project site. Transportation of raw material, fuel & finished product will be done 50 % by road. Existing PCU is 229.60 PCU/hr and 77.31 PCU/hr on NH 8A and SH 6 and existing level of service (LOS) is: <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume In PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH-8A</td> <td>229.60</td> <td>625</td> <td>0.36</td> <td>B</td> </tr> <tr> <td>SH-6</td> <td>77.31</td> <td>450</td> <td>0.17</td> <td>A</td> </tr> </tbody> </table> <p>NH 8A PCU load after proposed project will be 229.60 (Existing) + 8.83 (Additional) PCU/hr and level of service (LOS) will be:</p> <p>SH6 PCU load after proposed project will be 77.31 (Existing) + 7.25 (Additional) PCU/hr and level of service (LOS) will be:</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume In PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Proposed V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH-8A</td> <td>238.43</td> <td>625</td> <td>0.38</td> <td>B</td> </tr> <tr> <td>SH-6</td> <td>84.56</td> <td>450</td> <td>0.19</td> <td>A</td> </tr> </tbody> </table>	Road	V (Volume In PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	NH-8A	229.60	625	0.36	B	SH-6	77.31	450	0.17	A	Road	V (Volume In PCU/hr.)	C (Capacity in PCU/hr.)	Proposed V/C Ratio	LOS	NH-8A	238.43	625	0.38	B	SH-6	84.56	450	0.19	A
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Period	1 st March 2021 to 31 st May 2021
	Conclusion: The level of service will be “very good and Excellent” after including additional traffic due to proposed project.
Flora and fauna	Schedule I fauna: Peacock or Indian peafowl, Eurasian Spoonbill and specific wildlife conservation plan has prepared and submitted to Forest department of Kutchh.

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

Sr. No.	Type of Waste	Source	Quantity generated (TPA)	Mode of Treatment and Disposal
1.	Used or Spent Oil	Plant and Machineries	15 KL	Collection, Storage, Transportation, Disposal by reuse in Plant & Machinery as lubricant or sell it to authorized re-refiners/recycler.
2.	Mill scale	Rolling Mill	8400	Collection, Storage, Transportation, and dispatched to Sinter Plant or it may be re-circulated to the steel making process of Steel Melt Shop.
3.	End Cuts and Cobble Cuts	Process	16800	Dispose for remelting as steel scrap
4	KILN & WHRB FES dust (Fly Ash)	CPP	33000	Dolochar and fine dust generated from our proposed unit will be made into briquette and reused in sinter plant of our sister concern unit
5	Char & Dolochar	DRI Kiln	51200	
6	Bag Filter dust	DRI Kiln	28250	Saleable
7.	Wet Scraper Sludge	DRI Kiln	14850	Sale to brick manufacturers

10.3.14 Public Consultation:

Details of advertisement given	Public Hearing Notice was published in English Newspaper “Business Standard” dated 03.02.2022 and in Gujarati Newspaper “Divya Bhaskar” dated 03.02.2022
Date of public consultation	08/03/2022 at 11:00 hrs
Venue	Survey No 588, Varsamedi Sim, Kandla Airport Road, Village: Varsamedi, Taluka: Anjar, District: Kutch, Gujarat
Presiding Officer	Resident Additional Collector & Additional District Magistrate

	Bhuj-Kutch.
Major issues raised	Education and Sports, Environment Pollution, Employment, Health, Agriculture and Animal Husbandry.

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

S. No	Physical activity and action plan		Year of implementation (Budget in INR)					Total Expenditure (Rs. In Lakh)
	Name of the Activity	Physical Targets	1 st	2 nd	3 rd	4 th	5 th	
1	Education and Sports	Drinking water facility, Library facility, furniture to school Providing supporting teachers at the schools Villages Identified : Meghpar Borichi, Pashwadi Khara, Meghpar Kumbhardi	15	15	15	15	15	75
		<ul style="list-style-type: none"> Providing Sports kits to schools for encouragement of students towards sports, health and fitness Villages Identified : Meghpar Borichi, Satapar, Meghpar Kumbhardi	20	20	20	20	20	100
2	Environment Pollution	<ul style="list-style-type: none"> Adequate control measures like installation of ESP, Bag filters, dust suppression system, fume extraction system, water sprinklers & stacks of adequate height with DRI at relevant places will be installed. Maintenance of air pollution control equipment shall be done at regular intervals. All roads shall be paved on which movement of raw materials or products will take place inside the plant premises. Company will put up a wind barrier around the plant boundary No wastewater will be discharged outside the premises without the treatment Solid and Hazardous waste will be disposed as per the CPCB guidelines	35	35	35	35	35	175
3	Employment	<ul style="list-style-type: none"> In the proposed project, top most priority will be given to the local people based on their academic qualification. Skill development to unemployed local youths through National Skill Development Corporation, Govt. of India Scheme. Company will organize the skill development program to ITI students, Tailoring Institute and other training programs as per the need basis for self-employment (Automobile Repair, Welding, Electrical, Computer Hardware, Soft skills like vocational training etc.) Assistance and support will be provided to Women Self Help groups for running laghu udhyog and small business like (papad and pickle manufacturing) Development of Anganwadi Centre in consultation with State Women and Child Development Department Villages Identified : Lakhpar, Satapar, Bhimasar, Vidi,	20	20	20	20	20	100

S. No	Physical activity and action plan		Year of implementation (Budget in INR)					Total Expenditure (Rs. In Lakh)
	Name of the Activity	Physical Targets	1 st	2 nd	3 rd	4 th	5 th	
		Jaru, Varsamedi						
4	Health	<ul style="list-style-type: none"> Establishment of Veterinary Hospital Providing vehicle for ambulance facilities to primary health centers Periodical medical camps to enhance the levels of healthcare in nearby communities Villages Identified : Padana, Satapar, Mithi Rohar, Vidi, Galpadar, Varsamedi	30	30	30	30	30	150
5	Enviro-friendly Measures	<ul style="list-style-type: none"> Rain water harvesting pits & provision of ground water recharging in nearby villages Solar Street lights on both side of roads in nearby villages Avenue plantation in nearby villages Villages Identified : Padana, Lakhapar Mithi Rohar, Bhimasar, Varsamedi	15	15	15	15	15	75
6	Agriculture and Animal Husbandry	<ul style="list-style-type: none"> Assistance to farmers by providing seeds, manure and biofertilizers Supply of Agriculture water pump sets for local farmers Providing fodder and medical assistance to cattle and milch animals Providing fund and assistance to NGOs working for the welfare of Gaushalas Villages Identified : Padana, Lakhapar Mithi Rohar, Bhimasar, Vidi, Galpadar	15	15	15	15	15	75
Total Cost (Overall)			150	150	150	150	150	750

10.3.15 The capital cost of the proposed project is Rs 470.0 Crores and the capital cost for environmental protection measures is proposed as Rs 14.88 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 2.43 Crores. The employment generation from the proposed project is 470 Nos. The details of cost for environmental protection measures is as follows:

Sr. No.	Particulars	Amount in INR, Lakhs	
		Capital Cost	Recurring Cost
1	Air Pollution Control System	800.00	80.00
2	Noise Control System	45.00	7.00
3	Green Belt Development	30.00	5.00
4	Environmental Monitoring	28.00	15.00
5	Water Pollution Control System	100.00	20.00
6	Occupational Health & Safety	25.00	10.00
7	Solid/Hazardous Waste Management	200.00	45.00
8	Rain Water Harvesting System	10.00	1.50
9	Fire Safety & Equipment	250.00	60.00

Total	1488.00	243.50
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10.3.16 Greenbelt will be developed in 2.363 ha which is about 33% of the total project area. A 10-20 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 5910 trees will be planted and nurtured in 2.363 ha in next 5 years.

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

Representation received on the project:

10.3.18 A representation has been received by the EAC (Industry-1) members through email dated 31.07.2022 for rejection of the instant Environment Clearance application on the grounds that in the instant application several important facts are concealed. Further, the company has started construction work prior to EC.

Deliberations by the Committee

10.3.19 The Committee noted the following:

1. A representation has been received through email dated 31.07.2022 for rejection of the instant Environment Clearance application on the grounds that in the instant application several important facts are concealed. Further, the company has started construction work prior to EC. The EAC is of the opinion that the project proponent shall submit the pointwise clarification on the issues raised in the representation dated 31.07.2022. The EAC advised the Ministry to forward the representation dated 31.07.2022 to project proponent for their clarification.
2. On examination, the EAC observed that some ground work or preparation activity has been started though the project is greenfield, as reported in the Report. Also, EDS was raised by the Ministry regarding the same and Project Proponent submitted that the unit has obtained CTE from SPCB for manufacturing of TMT Bars via letter dated 07.08.2021. Accordingly, construction work has been done to manufacture TMT bars. Project proponent is required to submit the details of the construction work undertaken so far and clarify why EC is not applicable under EIA Notification, 2006 for carrying out such work?. Further, EAC is of the view that factual report may be sought from IRO, MoEF&CC in this regard.
3. The EAC noted that the Sang River is at a distance of 0.6 km from the project site. As per specific ToR condition (viii), PP is required to submit the authenticated HFL data of the Sang River from the concerned Competent Authority. However, the same has not been submitted.
4. On perusal of PH proceedings, EAC observed that 212 people attended the PH, objections were raised against the project, however, only few people signed the attendance. EAC is of the view when People have concern then they should also need to sign in the attendance sheet.

5. A list of nearby industries is to be submitted along-with cumulative impact assessment of the project site.
6. There are Schedule - I species reported in study area, namely Peacock or Indian peafowl and Eurasian Spoonbill. Specific wildlife Conservation plan has been prepared and submitted to Principal Chief Conservator of Forest (PCCF), Forest department of Kutchh for approval. The status of approval of conservation plan has to be submitted.
7. In ToR, Total water requirement is mentioned as 3646 m³/day. However, in the EC application total water requirement is estimated as 3861 m³/day. PP shall provide justification for the same with revised water balance diagram. Further, the water will be sourced from sister concern unit M/s. Welspun India Limited from its 30 MLD Sewage treatment plant after recycling & reuse of municipal sewage generated from the nearby Municipalities. Agreement made in the regard shall also be submitted.
8. GLC modelling details for CO shall be submitted.
9. Baseline data related to surface water and ground water shall be revisited and specific value range shall be submitted.
10. Noise levels in the baseline data shows higher values. Project proponent shall submit the justification along with the mitigation measures that will be undertaken to minimise the impact.

Recommendations of the Committee

- 10.3.20** In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** and sought requisite information on the points referred at para no. 10.3.19 above. The proposal shall be considered after submission of requisite information from the PP and factual Report from the IRO, MoEFCC.

Agenda No. 10.4

- 10.4 **Expansion of Steel Melting Shop (1,08,000 to 3,50,000 TPA) along with installation of Captive Power Plant of 10 MW (5 MW WHRB & 5 MW AFBC) within existing Steel Plant (66,000 TPA Sponge Iron Plant & 4,56,000 TPA Rolling Mill), located at Dr. Zakir Hussain Avenue, G.T. Road (Indo American More), Durgapur, Tehsil Faridpur Durgapur, District Paschim Bardhaman, West Bengal by M/s. SPS Steels Rolling Mills Limited (A Unit of Shakambhari group) – Consideration of Environmental Clearance .**

[Proposal No. IA/WB/IND/254615/2003; File No. J-11011/156/2020-IA.II(I)]

[Consultant: J.M. EnviroNet Pvt. Ltd.; Valid upto 07.02.2023]

- 10.4.1 M/s. SPS Steels Rolling Mills Limited (A Unit of Shakambhari group) has made an online application *vide* proposal no. IA/WB/IND/254615/2003 dated 6th July, 2022 along with copy of EIA/EMP Report, Form - 2 and Certified EC Compliance Report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous), and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

- 10.4.2 Name of the EIA consultant: M/s J.M. EnviroNet Pvt. Ltd. [Sl. No. 41, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0186; valid upto 07.02.2023, Rev. 24, July 05, 2022].

Details submitted by Project proponent

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

Date of Application	Consideration	Details	Date of Accord	ToR Validity
24 th June, 2020	21 st Meeting of EAC on 30 th July – 1 st August 2020	Term of Reference	24 th August, 2020	23 rd August, 2024

- 10.4.4 The project of M/s. SPS Steels Rolling Mills Limited located at Dr. Zakir Hussain Avenue, G.T. Road (Indo American More), Durgapur, Tehsil Faridpur Durgapur, District Paschim Bardhaman, West Bengal is for expansion of Steel Melting Shop (1,08,000 to 3,50,000 TPA) along with installation of Captive Power Plant of 10 MW (5 MW WHRB & 5 MW AFBC) within existing Steel Plant (66,000 TPA Sponge Iron Plant & 4,56,000 TPA Rolling Mill).

- 10.4.5 Environmental Site Settings:

S. No.	Particulars	Details	Remarks
i.	Total land	9.38 hectares. Plant in industrial area.	Land use: Already industrial.

S. No.	Particulars	Details	Remarks																								
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Total land is under the possession of the company. Expansion will be done within existing plant premises.	-																								
iii.	Existence of habitation & involvement of R&R, if any.	Plant Site: No habitation exists within the plant site and R&R is not applicable. Study Area: Project located in industrial area of Durgapur city. There are approx. 100 wards & villages in 10 km radius study area.	-																								
iv.	Latitude and Longitude of all corners of the project site	<table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>A.</td> <td>23° 30'55.03"N</td> <td>87° 19'54.98"E</td> </tr> <tr> <td>B.</td> <td>23° 30'51.16"N</td> <td>87° 19'57.96"E</td> </tr> <tr> <td>C.</td> <td>23° 30'45.50"N</td> <td>87° 19'54.08"E</td> </tr> <tr> <td>D.</td> <td>23° 30'45.00"N</td> <td>87° 19'51.20"E</td> </tr> <tr> <td>E.</td> <td>23° 30'47.44"N</td> <td>87° 19'44.38"E</td> </tr> <tr> <td>F.</td> <td>23° 30'56.08"N</td> <td>87° 19'42.29"E</td> </tr> <tr> <td>G.</td> <td>23° 31'0.91"N</td> <td>87° 19'44.14"E</td> </tr> </tbody> </table>	Point	Latitude	Longitude	A.	23° 30'55.03"N	87° 19'54.98"E	B.	23° 30'51.16"N	87° 19'57.96"E	C.	23° 30'45.50"N	87° 19'54.08"E	D.	23° 30'45.00"N	87° 19'51.20"E	E.	23° 30'47.44"N	87° 19'44.38"E	F.	23° 30'56.08"N	87° 19'42.29"E	G.	23° 31'0.91"N	87° 19'44.14"E	-
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v.	Elevation of the project site	86 m to 91 m above mean sea level.	-																								
vi.	Involvement of Forest land if any.	No Forest Land is involved in the plant site.	-																								
vii.	Water body exists within the project site as well as study area	Project site: No water body exists within the plant site. Study area: Following water bodies falls within 10 km radius:	-																								
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viii.	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the	Nil. No Reserve Forest exists within 10 km radius of the plant site. Durgapur Protected Forest is at 5.5 km in East Direction from plant site.	-																								

S. No.	Particulars	Details	Remarks
	study area.		
ix.	Critically/ Severally Polluted Areas (CPA/ SPA)	The plant is in Industrial area, Durgapur. As per honorable NGT order on polluted areas the plant has Comprehensive Environmental Pollution Index (CEPI) score of 65.56 and hence comes under Severely Polluted Area.	

10.4.6 The existing project was accorded Consent to Establish from West Bengal Pollution Control Board vide Memo No. 3014(1-5)-2N-30/2003 dated 27.06.2003 and Memo No. 1614-202/WPB/SEE(KO)-GEN/2004 dated 11.08.2004. EC was not obtained for the project under 1996 notification as the cost of project was Rs. 12 Crores only and also not under 2006 notification as it was started before EIA Notification, 2006 came into existence. SPS Steels Rolling Mills Limited - the makers of Elegant Steel and TMT bars was taken over by Shakambhari group after receiving approval from the Kolkata bench of National Company Law Tribunal (NCLT) and process of acquisition was completed on 11th April 2019. Corporate Insolvency Resolution Process (CIRP) in terms of IBC Code, 2016 commenced against SPS Steels Rolling Mills Limited pursuant to an order of Hon'ble NCLT dated 22nd Dec., 2017. Resolution Plan was approved with various reliefs / concessions / grants including following which provides immunity to the Company under various Laws. Consent to Operate for the existing unit was accorded by West Bengal Pollution Control Board for Sponge Iron (5500 MT per Month production with 1 x 100 TPD & 2 x 40 TPD DRI Kiln), Steel Ingot/Billet (9000 MT per Month production with 2X15 Ton IF with caster) & DG Sets (380 & 415 KVA) in its premises vide Consent Letter no. CO 123308 dated 28.05.2019 valid up to 30.09.2023 issued vide Memo NO: 938-dr-CO-S/11/1879 dated 28.05.19. Consent to Operate for the TMT Rod (38000 MT per Month production & 3 nos. Reheating Furnace) was also obtained vide Consent Letter no. CO 114837 dated 17.05.2018 valid up to 28.02.2023 issued vide Memo No: 1749-dr-CO-O/10/0734 dated 17.05.2018.

10.4.7 Implementation status of the existing CTO - SPS Steels Rolling Mills Limited is presently operating Steel Plant which includes 66,000 TPA Sponge iron plant (DRI) (2X40 + 1X 100 TPD), 1,08,000 TPA Steel Melting Shop (2X15 Ton IF with caster), 4,56,000 TPA Rolling Mill (2 units).

Name of the Product	Existing Facility & Production Capacity	Consent to Operate for Existing Capacity
Sponge Iron	5500 MT per Month production with 1 x 100 TPD & 2 x 40 TPD DRI Kiln	Consent Letter no. CO 123308 dated 28.05.2019 valid up to 30.09.2023 issued vide Memo NO: 938-dr-COS/11/1879 dated 28.05.19
Steel Ingot/Billet	9000 MT per Month production with 2X15 Ton IF with caster	
DG Sets	380 & 415 KVA	
TMT Rod	38000 MT per Month	Consent Letter no. CO 114837 dated

Name of the Product	Existing Facility & Production Capacity	Consent to Operate for Existing Capacity
	production & 3 nos. Reheating Furnace	17.05.2018 valid up to 28.02.2023 issued vide Memo No: 1749-dr-COO/10/0734 dated 17.05.2018

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

Name of the Units with Products	Existing Production Capacity as per CTO			Proposed Additional Production		Total (Existing + Proposed) Production	Remarks
	Installed Capacity	Production (in ton)		Capacity	Production (TPA)		
		Annually	Monthly				
Sponge Iron Plant (DRI)	2x40 TPD + 1x100 TPD	66,000 TPA	5500	2x100 TPD*	0	66,000 TPA	No change in production capacity.
* As per the recommendation of EAC the company will phase out existing 2x40 TPD DRI kilns and will install 1x100 TPD DRI kiln. The total capacity of Sponge Iron Plant will remain unchanged.							
SMS (M.S. Billets)	2x15 Ton IF with caster*	1,08,000	9000	5x20 Ton with 2 casters and one LRF	2,42,000 TPA	3,50,000 TPA	Expansion to meet Rolling mill requirement through hot charging bypassing existing reheating furnace
* Existing 2x15 Ton IF with Caster will be dismantled after proposed expansion							
Rolling Mill (Long Products)	I	300 TPD	4,56,000	38000	No change	4,56,000 TPA	No change
	II	1000 TPD					
Reheating Furnace#	I	18 TPH	-	-	To be dismantled after expansion	-	To be dismantled
	II	18 TPH	-	-	To be dismantled after expansion	-	To be dismantled
	III	18 TPH	-	-	No Change	1 x 18 TPH	No change
Note: #Both Rolling Mills will be hot charged after expansion. Two reheating shall be dismantled after expansion and only one Reheating will be kept as back up to feed Cold billets.							
Captive Power Plant (Power)	NIL			10 MW (5 MW WHRB + 5 MW AFBC)		10 MW (5 MW WHRB + 5 MW AFBC)	New Installation for backward integration

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

S.	Required	Estimated Quantity (in TPA)	Source of	Mode of	Distance
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No.	Raw Material	Existing	Additional	Total after expansion	Raw Material	Transportation	from Project Site (km)
I	Sponge Iron Division						
	Iron Ore (Net)	98492	-	98492	Barbil	Road/Rail	300
	Coal	62277	-	62277	Import	Road/Rail	60
	Dolomite	2251	-	2251	Katani/Bhutan	Road	270/990
II	SMS Division						
	Pig Iron	20681	46340	67021	SAIL/Local	Road/Rail	15
	Sponge Iron	94500	211750	306250	Local	Internal /Road	--
	Ferro Alloys	1296	2904	4200	Local	Road	--
	Scrap	13642	30569	44211	Local	Internal / Road	--
III	Rolling Mill Division						
	Billets	474240	-	474240	Internal & Local	Internal / Road	--
IV	Captive Power Plant						
	Coal	-	26154	26154	Import & Domestic	Road	60
	Dolochar	-	20985	20985	Internal	Internal	--
<i>Note: ** NH-2 passes adjacent to the plant which is a four-lane highway. Transportation of goods is being done via railways. However, in case of unavailability of rakes and uncertain problem, in the worst-case scenario transportation of goods is being done via existing road which is NH-2.</i>							

10.4.10 The existing water requirement for the industry is 890 m³/day which is being obtained from Durgapur Projects Ltd. (A Govt. of West Bengal Undertaking) for which the company has already done agreement for supply of water for industrial and domestic uses. After expansion, total water requirement will be 1385 KLD. The company has already applied to Durgapur Projects Ltd. (DPL) for water enhancement from existing to 1700 KL per day vide letter dated 30/07/2020. Additional Water shall be provided by DPL as and when required by the project upon implementation. The company will be utilizing stored rainwater & treated water from STP in Greenbelt & plantation.

10.4.11 The power requirement for the existing Plant is 17.50 MW. For this expansion, additional 27.5 MW power will be required. The total power requirement after the expansion will be 45 MW. 35 MW will be procured from DVC/WBSEDCL (Damodar Valley Corporation/West Bengal State Electricity Distribution Company Limited) and 10 MW from captive generation.

10.4.12 Baseline Environmental Studies:

Period	Post - Monsoon Season (Oct., to Dec., 2020)
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Period	Post - Monsoon Season (Oct., to Dec., 2020)																								
AAQ parameters at 08 locations	<ul style="list-style-type: none"> • PM₁₀ - 65.2 to 134 µg/m³ • PM_{2.5} - 31.4 to 69.9 µg/m³ • SO₂ - 6.9 to 28.5 µg/m³ • NO₂ - 14.0 to 40.3 µg/m³ • CO – 0.53 to 1.29 mg/m³ 																								
Incremental GLC level	S. No.	Scenario	Results (µg/m³)																						
			PM10	SO2	NOX																				
	1.	Presently, due to Existing Plant Operations	1.24	1.23	1.33																				
2	After Expansion & Modifications/ improvement in existing plant	1.02	0.5	0.53																					
Ground Water Quality at 08 locations	<ul style="list-style-type: none"> • pH - 6.56 to 7.13 • Total Hardness - 51.05 to 398.54 mg/l • Fluoride - 0.39 to 0.87 mg/l • Chloride- 24.46 to 109.23 mg/l • Heavy Metals – ND 																								
Surface Water Quality at 06 locations	<ul style="list-style-type: none"> • pH - 7.16 to 7.5 • DO - 6.8 to 7.4 mg/l • BOD - 2.2 to 8.24 mg/l • COD - 8 to 32.02 mg/l 																								
Noise Levels Leq at 08 locations (Day and Night)	During Day Time - 53.2 to 70.2 Leq dB (A) During Night Time - 45.2 to 61.3 Leq dB(A)																								
Traffic assessment study findings	<ul style="list-style-type: none"> ▪ Traffic study has been conducted at NH-2 which passes adjacent to the plant and is a four-lane divided highway. ▪ Transportation of raw material, fuel & finished product will be done 100% by road. ▪ Existing PCU is 729 PCU/hr on NH-2 and existing Level of Service (LOS) is: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH-2</td> <td>729</td> <td>3600 (4 lane divided – Two Way)</td> <td>0.203</td> <td>B</td> </tr> </tbody> </table> <ul style="list-style-type: none"> ▪ PCU load after proposed expansion project will be 729 (Existing) + 8 (Additional) PCU/hr. Therefore, total volume in PCU/hr is 737 on NH - 2. Hence, modified traffic scenario & LOS will be: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr. as per IRC:</th> <th>V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	NH-2	729	3600 (4 lane divided – Two Way)	0.203	B	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr. as per IRC:	V/C Ratio	LOS					
Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS																					
NH-2	729	3600 (4 lane divided – Two Way)	0.203	B																					
Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr. as per IRC:	V/C Ratio	LOS																					

Period	Post - Monsoon Season (Oct., to Dec., 2020)			
			106-1990)	
	NH-2	729+8 =737	3600	0.205
	<i>*Note: Capacity as per IRC -106- 1990 Guideline for capacity for roads</i> Conclusion: The level of service will remain “B” i.e. Very Good after including additional traffic due to expansion project.			
Flora & Fauna	No schedule - I species were recorded in the study area.			

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

S. No.	Type of Waste	Waste	Source	Quantity Generated after expansion (TPA)	Mode of Treatment / Disposal
1.	SW	Fly ash	CPP	28283	Sold as raw material for cement plants and brick manufacturing
2.	SW	Bottom Ash	CPP		Used for land-filling purposes
3.	SW	IF Slag	Induction Furnace	47250	To slag processors for metal recovery and further use in road construction & land filling purposes after metal recovery
4.	SW	Dolochar	DRI Plant	20985	Used in boiler in CPP for power generation
5.	SW	Dust	Dust from APCE devices of DRI & SMS	14215	To be fully consumed in plant in Induction Furnace
6.	SW	Mill Scale	Rolling Mill	6840	Sold to ferro alloys manufactures
7.	SW	ETP Sludge	ETP	8.30	Disposed off at Secured landfill site
8.	HW	Used oil and grease	Plant Maintenance	500 litres/annum	Sold to Authorized vendor.

10.4.14 Public Consultation:

Details of Advertisement Given	Public Hearing Notice published in 3 Newspapers namely “Millennium Post”, “Aajkaal” “Sanmarg” dated 02.09.2021.
Date of Public Consultation	5 th October, 2021
Venue	Deshbandhu Bhawan D.S.P. Steel City, B-Zone Health Centre, Durgapur-713205, Paschim Bardhaman.
Presiding Officer	Additional District Magistrate (L & LR), Paschim Bardhaman,
Major Issues Raised	Local Employment, Education & Health facilities, Pollution mitigation

measures, Skill development, Road & Infrastructure Development, etc.

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

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement			Cost (in Lakh)
			01 st Year	02 nd Year	03 rd Year	
1.	Education	Provide Interactive smart class equipment /gadgets like laptops, projectors, Interactive White Boards and study materials etc. to students	01 (Village Bidhannagar)	01 (Village Kalipur)	01 (Village Kadamtala)	23
2.	Health	Distribution of wheelchairs to Divyangs, oxygen cylinders & provide medical equipment in hospitals and health centre	01 Nos. each (Village Bidhannagar)	01 Nos. each (Village Kadamtala)	01 Nos. each (Village Faridpur)	25
3.	Skill Development	Establishment of Skill Development centre for Youth	1 No. (Village Bidhannagar or nearby other suitable place)			15
4.	Road development and its maintenance	Development/maintenance of pucca roads	1 No. (Village Sagarbhanga)	1 No. (Village Pabali)	1 No. (Village Piari More)	30
5.	Infrastructure Development	Development of Community Hall	1 No. (Village Sagarbhanga)	-	-	07
		Construction of Rain Water Harvesting system & Pond for natural recharge	1 No. (Village Pabali)	1 No. (Village Kadamtala)	1 No. (Village Karangapara)	15
		Installation of Solar Lights along roads	20 (Village Piari More)	20 (Village Khayrasol) 20 (Village Sagarbhanga)	20 (Village Pabali) 20 (Village Faridpur)	25
6.	Plantation	Distribution/Plantation of saplings in the village Govt. offices and schools	1000 (Village Bidhannagar)	500 Nos. (Village Piari More) 500 (Village Faridpur)	500 Nos. (Village Kadamtala) 500 Nos. (Village Sagarbhanga)	10

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement			Cost (in Lakh)
			01 st Year	02 nd Year	03 rd Year	
Total					1.50	Crores

10.4.15 The capital cost for the expansion project is Rs. 150 Crores and the capital cost for environment protection measures is Rs. 22 crores, the annual Recurring cost towards environment protection measures is Rs. 1.50 crores/annum. Existing manpower is 700 persons. Additional requirement for expansion will be 250 persons including regular and contractual persons. Thus, the total manpower requirement after expansion will be 950 persons which will include all categories of unskilled, semi-skilled from local area & skilled personnel from local & outside areas. The details of cost for environment protection measures are as follows:

S. No.	Description		Capital Cost (Crores)	Recurring Cost/annum (Crores)
1.	Air Pollution management	ESP, WHRB & bag filters + stack	14.60	0.70
2.	Water pollution management	Installation of Effluent Treatment Plant and sewage treatment plant	0.90	0.10
3.	Environment Monitoring	Lab Instrument	1.65	0.20
		Online monitoring of air, water others		
		Third party investment for monitoring		
		Others		
4.	Solid waste management	Ash handling & management	1.50	0.40
		Sludge/slag handling		
5.	Greenbelt & plantation development	Additional Greenbelt development & other miscellaneous requirements	0.30	0.05
6.	Rain water harvesting	Required infrastructure	3.05	0.05
Total			22.00	1.5
Rs. 1.50 Crores has been earmarked for implementation of the commitments made during Public Hearing.				

10.4.16 The plant is in Industrial area, Durgapur. As per Hon'ble NGT order on polluted areas the plant has Comprehensive Environmental Pollution Index (CEPI) score of 65.56 and hence comes under Severely Polluted Area. PP has submitted the Action Plan to comply with the CEPI Recommendations as follows:

Sl. No.	Stipulated Conditions/ Recommendations	Measures to comply CEPI Recommendation
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Sl. No.	Stipulated Conditions/ Recommendations	Measures to comply CEPI Recommendation
Air Environment		
i	Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants.	Stack emission from all the stacks will be maintained within 30 mg/Nm ³ . DRI Plant - ESPs (Existing 2 fields will be replaced with 4 fields). DRI Cooler discharge, I. Bin, Product House and Raw Material Handling System through Bag Filter. Captive Power Plant - Installation of 4 fields ESP. CHP- Installation of Bag filter.
ii	CEMS may be installed in all large / medium red category industries (air polluting) and connected to SPCB and CPCB server.	OCEMS has already been installed with following stacks in the existing Plant. 1. DRI Kilns 2 X 40 TPD Stack connected with ESP – 1 No. Opacity meter installed 2. DRI Kilns 1 X 100 TPD Stack connected with ESP – 1 No. Opacity meter installed <u>Proposed Expansion:</u> One more Opacity meter will be installed with the stack connected with AFBC Boiler ESP. Therefore, after expansion there will be total 3 Nos. Opacity meters as OCEMS (2 Nos. existing + 1 No. proposed).
iii	Effective fugitive emission control measures should be imposed in the process, transportation, packing, etc.	<ul style="list-style-type: none"> • All material transfer points are connected with Dust Extraction system attached with Bag filter. <ul style="list-style-type: none"> ➤ Cooler Discharge – Bag filter ➤ I Bin – Bag Filter ➤ Product House – Bag Filter ➤ Raw Material Handling System – Bag Filter • Water sprinkling systems for dust suppression are provided to control the fugitive air pollution. • Fugitive emissions are suppressed by water sprinkling in dust prone areas. No. of sprinkler at present – 26 Proposed addition – 10 Nos. Sprinklers Total no. of sprinklers after expansion-36 Nos. • Water spraying being done through water tanker on roads. • Good housekeeping practices are maintained. • All vibrating screens and conveyor galleries are being / shall be covered to prevent the dust emission. • Every possible effort being done to conserve the raw materials, energy and water resource.
iv	Transportation of materials by rail/ conveyor belt, wherever feasible.	<ul style="list-style-type: none"> • Sponge Iron from DRI unit will be used in the own plant for feeding the SMS unit; • Billets from the SMS unit will be used in Rolling Mill • Long products like TMT bars manufactured in the Rolling Mills will be marketed to nearby areas by rail/road. • Transportation of other raw materials and finished products will be done by road / rail. • Internal material conveying being/shall be done through covered conveyor galleries. • During transportation of Raw materials transportation by road being/will done through covered vehicles being / shall be covered to prevent the dust emission.
v	Encourage use of cleaner fuels (pet coke/ furnace oil/ LSHS may be avoided).	<ul style="list-style-type: none"> • The company ensures to dismantle 2 Re-Heating furnaces and go for 100 % hot charging from SMS. • For emergency one RH Furnace would be retained to run on CBM like

Sl. No.	Stipulated Conditions/ Recommendations	Measures to comply CEPI Recommendation
		<p>clean fuel.</p> <ul style="list-style-type: none"> • Thus, sizeable reduction of fuel consumption will take place.
vi	Best Available Technology may be used. For example: usage of EAF / SAF / IF in place of Cupola furnace. Usage of Supercritical technology in place of sub-critical technology.	<ul style="list-style-type: none"> • At SMS, Induction Furnace (IF) based best available technology being/will be used. • For captive power generation AFBC boiler shall be installed.
vii	Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible.	<p>Company proposes to increase the green belt area from 33% to 40%. Total Plant area – 9.38 Ha. Existing - 33 % of plant area – 3.09 Ha. Presently, 4700 trees i.e. ~1521 trees/ha have been planted so far. Additional Green Belt area – 3.75 Ha. – 3.09 Ha. = 0.66 Ha by planting trees to the tune of 2500 trees/ha After expansion - 40 % of plant area – 3.75 Ha. Total 9375 trees will be planted.</p>
viii	Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.	Company proposes plantation outside the project premises such as avenue plantation in vacant areas and social forestry etc. Approx. 3,000 Nos. trees would be planted outside the plant premises on the government, panchayat & vacant land as per availability.
ix	Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to be widened, shall be prescribed as a condition.	<ul style="list-style-type: none"> • Internal roads of plant premises will be concreted (RCC) and maintained in good condition. • Assessment of carrying capacity of roads inside the industrial premises will be carried out to calculate the transportation load of the roads. • Corrective measures will be taken accordingly.
Water Environment		
i	Reuse / recycle of treated wastewater, wherever feasible.	<ul style="list-style-type: none"> • Domestic waste water will be treated in STP (Capacity 25 KLPD) and treated water will be re-used for greenbelt development & plantation • Proposed CPP will employ air cooled condenser which will drastically reduce the water consumption • At rolling mill division total waste water being/will be treated through its treatment system and recycled/reused. • Maximum water required for DRI cooling system will be taken from CPP waste water generation after necessary treatment.
ii	Continuous monitoring of effluent quality / quantity in large and medium Red Category Industries (water polluting).	<ul style="list-style-type: none"> • The project will be based on Zero Liquid Discharge. • Continuous monitoring of effluent will be carried out to ensure no discharge outside the factory premises.
iii	A detailed water harvesting plan may be submitted by the project proponent.	<p>Rain water harvesting pond has been developed within the plant to harvest the rain water and reduce the amount of water consumption. In addition, company proposes Construction of 2 Nos. tank for roof top Rain Water Harvesting system. 03 nos. Pond for natural recharge in nearby villages. Cost earmarked for these would be Rs. 15 lakhs.</p>
iv	Zero liquid discharge wherever techno-economically feasible.	The plant will be a Zero Liquid Discharge unit.
v	In case, domestic waste water generation is more than 10 KLD, the industry may install STP.	Domestic waste water will be treated in STP (Capacity 25 KLPD) and treated water will be re-used for greenbelt development and plantation.
Land Environment		
i	Increase of greenbelt cover by 40% of	Company proposes to increase the green belt area from 33% to 40%.

Sl. No.	Stipulated Conditions/ Recommendations	Measures to comply CEPI Recommendation
	the total land area beyond the permissible requirement of 33%, wherever, feasible for new projects.	Total Plant area – 9.38 Ha. Existing - 33 % of plant area – 3.09 Ha. Presently, 4700 trees i.e. ~1521 trees/ha have been planted so far. Additional Green Belt area – 3.75 Ha. – 3.09 Ha. = 0.66 Ha by planting trees to the tune of 2500 trees/ha After expansion - 40 % of plant area – 3.75 Ha. Total 9375 trees will be planted.
ii	Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.	Company proposes plantation outside the project premises such as avenue plantation in vacant areas and social forestry etc. Approx. 3,000 Nos. trees would be planted outside the plant premises on the government, panchayat & vacant land as per availability.
iii	Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/ PCCs	<ul style="list-style-type: none"> • Dolochar (20,985 TPA) from the existing Sponge Iron Plants will be used in proposed AFBC boiler. • IF slag (47,250 TPA) will be sold to slag processors and after metal recovery it shall be used for road construction and land filling purposes. • The scales (6,840 TPA) generated from casters will be transferred to Induction Furnace (IF) for reuse. • Used oils (500 litres/annum) are industrial lubricating oils which will be stored in designated places and sold to authorized vendors. • Scrap generated in continuous casting and rolling mills will be used as return scrap in the IF. • Fly ash & bottom ash (28,283 TPA) generated from CPP will be sold as a raw material for cement plants and brick manufacturing whereas, the bottom ash will be used in land filling.
iv	More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in co-processing	Storage and handling of hazardous waste will be done as per provisions of Hazardous Waste Rules, 2016
Other Conditions (Additional)		
i	Monitoring of compliance of EC conditions may be submitted with third party audit every year.	Monitoring of compliance of EC conditions is/will be submitted with third party audit every year.
ii	The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance.	As per MoEFCC Office Memorandum dated 30th Sept., 2020 and 20th Oct., 2020 and the issues raised during Public hearing, company has prepared Socio-economic development plan for development of the area. Rs. 1.5 Crores have been estimated towards implementation of the plan.

10.4.17 Existing greenbelt area has been earmarked and is being developed under greenbelt & plantation which is 33% i.e. 3.09 ha of the existing plant area. Presently, 4700 trees i.e. ~1521 trees/ha have been planted so far. After expansion approx. 40% i.e., 3.75 ha of the total plant area will be developed under greenbelt & plantation. 5 to 10 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.

10.4.18 It is submitted that there is no violation under EIA notification 2006/no court cases/no show cause/no direction.

10.4.19 Certified compliance of Consent to Operate for the ongoing existing operation of the project has been obtained from WBPCB vide Memo No. 171(01)-4A/18/2008(Pt.-V) dated 01.02.2022. As per the report of RO, SPCB, the conditions have been complied with by the project proponent.

Written submission by the PP:

10.4.20 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 02.08.2022 through email dated 02.08.2022 submitted the revised information w.r.t. to the following:

1. Revised Water Balance: Freshwater for the plant has been decreased from 1625 KLD to 1385 KLD. The company will be utilizing stored rainwater & treated water from STP in Greenbelt & plantation. The revised water balance diagram is submitted. The same is updated at para 10.4.8 above.
2. Quantification and resubmission of compliance of CEPI recommendations for the plant: The unit will comply with CEPI recommendation issued vide OM vide no. 22-23/2018-IA. II (Pt) dated 30th October, 2019 as the plant site falls in Severely Polluted Area i.e. Durgapur identified by the directions of CPCB dated 26th April, 2016 and in compliance of Hon'ble NGT Order dated 19th August, 2019 (Published on 23rd August, 2019). The quantification of the measures adopted for the plant w.r.t. the conditions stipulated in OM has been submitted vide letter dated 02.08.2022 as incorporated at para 10.4.16 above.
3. Action Plan to decrease PM emissions in the area:
 - Stack emissions from all the stacks will be maintained within 30 mg/Nm³ and accordingly ESP and bag filters will be installed to meet the desired norms.
 - Increase in Greenbelt within plant premises from 33% to 40% @2500 trees/ha.
 - All material transfer points are connected with Dust Extraction system attached with Bag filter.
 - Increase in the number of Water sprinkling system for dust suppression. Total no. of sprinklers after expansion will be 36 Nos.
 - Industrial vacuum cleaners (2 nos.) will be used to keep fugitive emission under control.
 - Internal roads of plant premises will be concreted (RCC) and maintained in good condition.
 - The company ensures to dismantle 2 Re-Heating furnaces and go for 100 % hot charging from SMS. For emergency one RH Furnace would be retained to run on CBM like clean fuel.
 - Internal material convey shall be done through covered conveyor belt.
 - Approx. 3,000 Nos. trees would be planted outside the plant premises on the basis of vacant land available.
4. Clarification for not obtaining EC for the existing project as incorporated in para 10.4.6 above.

5. The Committee deliberated the issues and found in order.

Deliberations by the Committee

10.4.21 The Committee noted the following:

1. The instant proposal is for expansion of Steel Melting Shop (1,08,000 to 3,50,000 TPA) along with installation of Captive Power Plant of 10 MW (5 MW WHRB & 5 MW AFBC) within existing Steel Plant (66,000 TPA Sponge Iron Plant & 4,56,000 TPA Rolling Mill).
2. The existing units are operating on the basis of Consent to Operate obtained from West Bengal Pollution Control Board as detailed in para 10.4.6 above. The EAC deliberated the compliance report of CTO received from the SPCB and found in order.
3. The plant is in Industrial area, Durgapur. As per Hon'ble NGT order on polluted areas the plant has Comprehensive Environmental Pollution Index (CEPI) score of 65.56 and hence comes under Severely Polluted Area. The EAC deliberated the action plan on mitigation measures on CEPI and found in order.
4. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
5. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
6. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
7. The total project area is 9.38 ha which is under the possession of the company. Expansion will be done within existing plant premises.
8. Existing greenbelt is being developed in 33% area i.e. 3.09 ha. Presently, 4700 trees i.e. ~1521 trees/ha have been planted so far. After expansion approx. 40% i.e., 3.75 ha of the total plant area will be developed under greenbelt & plantation @2500 plants/ha.
9. After expansion, total water requirement will be 1385 KLPD. The company has applied to Durgapur Projects Ltd. (DPL) for water enhancement from existing to 1700 KL per day vide letter dated 30/07/2020.

10. Durgapur Protected Forest is at 5.5 km in East Direction from plant site.
11. Left Bank Main Canal, Damodar River, Barjora Nadi, Kunur Nadi, Panagarh Branch Canal, Damodar Branch Canal exists within the study area of 10 km from the project site.. The water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
12. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
13. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP that the green belt development shall be completed within a year.
14. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
15. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
16. The Committee deliberated upon the certified compliance report of RO, WBPCB and found it satisfactory.
17. The EAC also deliberated on the written submissions submitted by the proponent and found it satisfactory.
18. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
19. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

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

A. Specific Condition:

- i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- iii. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
- iv. Following additional arrangements to control fugitive dust shall be provided:
 - a. Fog / Mist Sprinklers at all conveyors point and on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
 - b. Proper covered vehicle shall be used while transport of materials.
 - c. Wheel Washing mechanism shall be provided in entry and exit gates.
- v. Project proponent shall ensure to close 2 RH furnaces and go for 100 % hot charging. For emergency one RH would be retained to run on LDO or CBM as available in Durgapur. Coal shall not be used as fuel in the reheating furnace.
- vi. As committed, all conditions of CEPI including 40% green belt development and 1.5 times CER shall be complied with as per the mitigation measures submitted.
- vii. Particulate matter emission from stacks shall be less than 30 mg/Nm³.
- viii. The total water requirement of 1385 KLD shall be met from Durgapur Projects Ltd. (DPL). No ground water abstraction is permitted.
- ix. The company shall also undertake rain water harvesting measures as per the plan submitted and reduce water dependence from the outside source.
- x. Left Bank Main Canal, Damodar River, Barjora Nadi, Kunur Nadi, Panagarh Branch Canal, Damodar Branch Canal exists within the study area of 10 km from the project site. The water bodies shall not be disturbed. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.
- xi. Air cooled condensers shall be used in the Power plant.
- xii. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- xiii. Three tier Green Belt shall be developed in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Plantation in gaps in the green belt shall be done by the PP during the present monsoon period and maintenance of @2500 plants/ha shall be done in the following years. Additional plantation shall be made in the East Direction from plant site to minimise the effect on Durgapur Protected Forest. Greenbelt/Plantation

outside the project premises such as avenue plantation in vacant areas and social forestry shall also be done through socio economic developmental activities. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

- xiv. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
- xv. The project proponent shall monitor the coal dust exposure concentrations at coal handling areas, ball mills, furnace charging areas through personal/area monitoring; and to be compared and it should be within 2 mg/m³, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.
- xvi. The proposed project shall be designed as "Zero Liquid Discharge" Plant. There shall be no discharge of effluent from the plant. Domestic waste water will be treated in STP and treated water shall be re-used for greenbelt development and plantation and dust suppression.
- xvii. CEMS shall be provided on all process stacks and the signal shall be received in plant control room for central control of APCDs installed in the plant.
- xviii. All internal road and connecting road from project site to main highway shall be developed and maintained with suitable Million Axle Standard (MSA) as per the traffic load due to existing and proposed project.
- xix. Internal roads of plant premises shall be concreted and maintained in good condition. Industrial vacuum cleaners shall be used regularly to clean roads to reduce fugitive emissions.
- xx. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
- xxi. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- xxii. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
- xxiii. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological

degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

B. General conditions:

I. Statutory compliance:

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

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; 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 recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- v. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.
- vii. 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.

III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; 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 recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories..
- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs 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.
- vi. Tyre washing facilities shall be provided at the entrance/exit of the plant gates.

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

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms 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. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

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

- projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
 - vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
 - vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
 - viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
 - ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
 - x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
 - xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
 - xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
 - xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
 - xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
 - xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Consideration in TOR Proposal

Agenda No. 10.5

10.5 "Regularization of the existing project of Rolling Mill having capacity of MS Ingots of 68,400 MTPA (228TPD), MS CTD Bars of 90,000 MTPA (300TPD) and Induction Furnace- 2 Nos of 8 Ton/Heat each, Heating Furnace -25 Ton/Hr" by M/s Rathi Bars Limited, located at Plot no.# SP-7, RIICO Industrial Area, Khushkhera, District. Alwar, Rajasthan – Consideration of TOR for Regularization project.

[Proposal No. IA/RJ/IND/272504/2022; File No. IA-J-11011/172/2022-IA-II(IND-I)]

10.5.1 M/s. Rathi Bars Limited has made an application online vide proposal no. IA/RJ/IND/272130/2022 dated 16.05.2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No.3(a) Metallurgical Industries (Ferrous and Non/ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and attracts general condition due to Inter-state boundary of Rajasthan & Haryana lies at a distance 2.15 Km, NNW and appraised at central level.

10.5.2 Name of the EIA consultant: M/s. Enkay Enviro Services Pvt. Ltd. [S.No. 112, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/RA 0183 valid till 12.12.2023; Rev. 24, July 05, 2022].

Details submitted by Project proponent

10.5.3 The project of M/s Rathi Bars Limited is located in RIICO Industrial Area Khushkhera, Tehsil - Tijara, District- Alwar, Rajasthan State is for "Regularization of the existing project of Rolling Mill having capacity of MS Ingots/Billets of 68,400 TPA (228TPD), MS CTD/TMT Bars & MS Round of 90,000 TPA (300TPD), Induction Furnace- 2 Nos of 8 Ton/Heat each, Heating Furnace -25 Ton/Hr".

10.5.4 Environmental site settings:

S. No.	Particulars	Details	Remarks																				
i.	Total land	Total plot Area is 35,100Sq.m.(3.51Ha) -RIICO Industrial land. There is no change is land use w.r.t. land allotted by RIICO.																					
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">S. No.</th> <th rowspan="2">Land Use</th> <th colspan="2">Area (Sq.m)</th> <th rowspan="2">Total area</th> <th rowspan="2">Percentage (%)</th> </tr> <tr> <th>Existing Area</th> <th>Proposed Area</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td>Plant Area</td> <td style="text-align: center;">11753.88</td> <td style="text-align: center;">None</td> <td style="text-align: center;">11753.88</td> <td style="text-align: center;">33.49</td> </tr> <tr> <td style="text-align: center;">2.</td> <td>Paved Area (Road,</td> <td style="text-align: center;">19,144.67</td> <td style="text-align: center;">None</td> <td style="text-align: center;">19,144.67</td> <td style="text-align: center;">54.55</td> </tr> </tbody> </table>	S. No.	Land Use	Area (Sq.m)		Total area	Percentage (%)	Existing Area	Proposed Area	1.	Plant Area	11753.88	None	11753.88	33.49	2.	Paved Area (Road,	19,144.67	None	19,144.67	54.55	
S. No.	Land Use	Area (Sq.m)			Total area	Percentage (%)																	
		Existing Area	Proposed Area																				
1.	Plant Area	11753.88	None	11753.88	33.49																		
2.	Paved Area (Road,	19,144.67	None	19,144.67	54.55																		

S. No.	Particulars	Details				Remarks	
			Corridor,)				
		3.	Green Belt Area	4201.45	None	4201.45	11.96
		4.	Open area	None	None	None	--
		Total		35,100	--	35,100	100
		Note*: The available Green area within the plant premises is 11.96%. About 28.04% green area will be developed by the proponent in consent with RIICO Office.					
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Existing project is already situated in Khushkhera RIICO Industrial Area.				-	
iii.	Existence of habitation & involvement of R&R, if any.	Land is already converted for industrial use. (RIICO Industrial Area) there is no habitation in the existing area, therefore rehabilitation & resettlement plan is not required/ applicable. Project site: RIICO Industrial Area, Khushkhera				-	
		Habitation	Distance (km)	Direction			
		Khushkhera	1.22	SW			
iv.	Latitude and Longitude of all corners of the project site.	Point	Latitude	Longitude		--	
		(1)	28° 7'37.66"N	76°47'19.71"E			
		(2)	28° 7'32.25"N	76°47'17.64"E			
		(3)	28° 7'34.44"N	76°47'9.71"E			
		(4)	28° 7'39.10"N	76°47'11.28"E			
		(5)	28° 7'38.28"N	76°47'13.29"E			
		(6)	28° 7'37.43"N	76°47'15.84"E			
		(7)	28° 7'38.16"N	76°47'16.30"E			
		(8)	28° 7'38.92"N	76°47'16.70"E			
		(9)	28° 7'38.07"N	76°47'16.76"E			
		(10)	28° 7'37.56"N	76°47'18.24"E			
		(11)	28° 7'38.01"N	76°47'18.46"E			
v.	Elevation of the project site	The highest and lowest elevation of the project site is 258 MSL and 256 MSL				--	
vi.	Involvement of Forest land if any.	The proposed project does not involve/fall in any forest land.				-	
vii.	Water body (Rivers,Lakes, Pond,Nala,Natural Drainage,Canal etc.) exists within the project site as	Project site: No natural water bodies exist within the project site. Study Area:				--	
		Water Bodies		Distance	Direction		
		Sahibi River		4.30	SW		
		Raliawas Distributary		8.14	WNW		
		Rattanpur Distributary		8.29	W		

S. No.	Particulars	Details				Remarks																																										
	well as study area		Chaondi Nadi	8.93	S																																											
			Garhi Bolni Distributary	9.20	WSW																																											
			Nikhari Distributary	9.84	NW																																											
			Sare Khurd Canal	10.69	ENE																																											
			Kheri Motla Distributary	11.93	WSW																																											
			Water Pond N/V Sare Khurd	14.06	E																																											
			Jitpur Distributary	12.67	NW																																											
			Jawahar Lal Nehru Canal	14.10	NW																																											
viii.	Existence of ESZ/ ESA/ national park/wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	<p>Study area: Nil</p> <p>List of Reserved and protected forests: are given in the following table.</p> <table border="1"> <thead> <tr> <th>Forests</th> <th>Distance(km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Banvan P.F.</td> <td>5.69</td> <td>E</td> </tr> <tr> <td>Khori Kalan P.F.</td> <td>7.00</td> <td>ESE</td> </tr> <tr> <td>P.F. Near Village Banvan</td> <td>6.14</td> <td>NE</td> </tr> <tr> <td>Guwalda P.F.</td> <td>8.64</td> <td>ESE</td> </tr> <tr> <td>Banvan P.F. Near Village Joriah</td> <td>8.37</td> <td>ENE</td> </tr> <tr> <td>Gondhan P.F.</td> <td>8.25</td> <td>NE</td> </tr> <tr> <td>Chaupanki P.F.</td> <td>10.63</td> <td>E</td> </tr> <tr> <td>Indaur R.F.</td> <td>11.44</td> <td>E</td> </tr> <tr> <td>Khidarpur P.F.</td> <td>12.71</td> <td>SE</td> </tr> <tr> <td>Sare Kalan P.F.</td> <td>12.28</td> <td>E</td> </tr> <tr> <td>Bhalki P.F.</td> <td>13.96</td> <td>SSE</td> </tr> <tr> <td>Milakpur Turk P.F.</td> <td>14.18</td> <td>ESE</td> </tr> <tr> <td>Rangala R.F.</td> <td>13.31</td> <td>NE</td> </tr> </tbody> </table>				Forests	Distance(km)	Direction	Banvan P.F.	5.69	E	Khori Kalan P.F.	7.00	ESE	P.F. Near Village Banvan	6.14	NE	Guwalda P.F.	8.64	ESE	Banvan P.F. Near Village Joriah	8.37	ENE	Gondhan P.F.	8.25	NE	Chaupanki P.F.	10.63	E	Indaur R.F.	11.44	E	Khidarpur P.F.	12.71	SE	Sare Kalan P.F.	12.28	E	Bhalki P.F.	13.96	SSE	Milakpur Turk P.F.	14.18	ESE	Rangala R.F.	13.31	NE	
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Sare Kalan P.F.	12.28	E																																														
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Milakpur Turk P.F.	14.18	ESE																																														
Rangala R.F.	13.31	NE																																														

10.5.5 The existing project was accorded Consent to Establish vide letter no. RPCB/RO/BWD/0-173/2206-2208 dated 18.12.1997. The proposal has been applied first time for obtaining Environmental Clearance as previously the project of Rolling Mill was not covered under the purview of Environmental Clearance under EIA Notification 2006. (Secondary metallurgical processing industries with Production \leq 60,000 TPA). Latest Consent to Operate (Latest) for the existing unit was accorded by Rajasthan State Pollution Control Board vide letter no. F(CPM)/Alwar(Tijara)/3962(1)/2018-2019/577-579 dated 30.04.2018. The validity of CTO was up to 30.06.2021. Renewal of CTO is applied and pending for want of Environmental Clearance.

10.5.6 Implementation status of the existing CTE/CTO:

CTO & CTE	CAPACITY	Letter No.	Validity Period
CTE for Manufacturing of MS Twisted Bars	48,000MTPA, DG set 62.5 KVA	RPCB/R.O./BWD/0 -173/2206-2208	valid for one year from 18.12.1997
CTO for Manufacturing of MS Twisted Bars	48,000 MTPA	RPCB/R.O./BWD/0 -173/749	30.09.1997
Extension of CTO for Manufacturing of MS Twisted Bars	48,000 to 96,000 MTPA	RPCB/R.O./BWD/0 -173/1289	30.09.1999
CTE for production of MS Ingots	68,500MTPA	F-12(2- 159)RPCB/GR I/1652	3 year from date of issue 24.09.2004
CTO for Manufacturing of MS Twisted Bars and MS Ingots, Induction Furnace (8 MT/Heat-2 Nos) & Heating furnace(1 NOS)	96,000 MTPA and 68,500MTPA	F-12(2- 159)RPCB/966	1.09.2005 To 31.08.2007
CTO for Manufacturing of MS Twisted Bars and MS Ingots, Induction Furnace (8 MT/Heat-2 Nos) & Heating furnace (1 NOS)	96,000 MTPA and 68,500MTPA	F-12(2- 159)RPCB/Grd/15 74	1.09.2008 To 31.08.2009
CTO for Manufacturing of MS Twisted Bars and MS Ingots	96,000 MTPA and 68,500MTPA	F(Tech)/Alwar(Tij ara)109(1)/2009- 2010)/4547-4549	1.09.2009 To 31.08.2010
CTO for Manufacturing of MS Twisted Bars and MS Ingots, Induction Furnace (8 MT/Heat-2 Nos) & Heating furnace (1 NOS)	96,000 MTPA and 68,500MTPA	F(Tech)/Alwar(Tij ara)109(1)/2009- 2010)/6783-6786	1.09.2010 To 31.08.2011
CTO for Manufacturing of MS Twisted Bars and MS Ingots	96,000 MTPA and 68,500MTPA	F(Tech)/Alwar(Tij ara)109(1)/2009- 2010)/6653-6655	1.09.2011 To 31.08.2013
CTE for Establishing of Dgsets and Coal pulverizer(1 no.)	200KVA&600K VA	F(CPM)/Alwar(Tija ra)3962(1)/2018- 2019)/574-576	25.07.2016 To 30.06.2021
CTO for Manufacturing of HSD Bars and Ingots	96,000 MTPA (300 TPD) and 68,500MTPA (228 TPD)	F(CPM)/Alwar(Tija ra)/3962(1)/2018- 2019)/577-579	25.07.2016 To 30.06.2021
Renewal of CTO application	96,000	--	Applied on

CTO & CTE	CAPACITY	Letter No.	Validity Period
for Manufacturing of HSD Bars and Ingots	MTPA (300 TPD) and 68,500MTPA (228 TPD)		27.02.2021

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

S. No.	Product	Existing Capacity (MTPA)	Total Capacity (MTPA)
1.	MS Ingots/Billets	68,400 MTPA (228TPD)	68,400 MTPA (228TPD)
2.	MS CTD/TMT Bars & MS Round	90,000 MTPA (300TPD)	90,000 MTPA (300TPD)
3.	Induction Furnace (2 Nos)	8TPH	8TPH
4.	Heating Furnace	25Ton/Hr	25Ton/Hr

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

S. No.	Raw Material	Existing	Total	Source	Mode of transport
		Consumption			
1	MS Billets	314.370MT/Day	314.370MT/Day	Local	Transported by Trucks
2	MS scrap	240.510MT/Day	240.510MT/Day	Local	
3	Coal	20kg/Ton/day	20kg/Ton/day	Local	
4	Gas (PNG)	1000m ³ /day	1000m ³ /day	Local	

10.5.9 Existing one-time water requirement is 178 m³/day, out of which 65 m³/day of fresh water requirement is being obtained from the ground water and permission for the same has been obtained from CGWA vides letter no. CGWA/NOC/IND/ORIG/2021/10741 dated 26.01.2021 and the remaining 113 m³ /day is being met from the Recycling.

10.5.10 Existing power requirement of 7800kVA (18081KW Sanctioned capacity) is obtained from JVVNL, Alwar from nearest GSS of 220KV.

10.5.11 The capital cost of the project is Rs 95.26 Crores and the capital cost for environmental protection measures is proposed as Rs 0.61 Crores. The employment generation from the existing project is 242.

10.5.12 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. Project Proponent has submitted an undertaking in the form of affidavit in India non-judicial stamp dated 11th May,

2022 stating that there is no litigation pending against the project and/or land in which the project is set up.

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

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
A. Air Environment				
Meteorological Wind Speed Wind Direction Max. Temperature Min. Temperature Relative Humidity Rain fall Solar radiation Cloud cover	1-site area in the project impact area- site area	One hourly continuous	Mechanical/ Automatic Weather stations Max/ Min Thermometer Hygrometer Rain gauge As per IMD specifications	IS 5182 Part1-20 Site specific primary data is essential Secondary data from IMD
Pollutants Pollutants PM ₍₁₀₎ PM _(2.5)	8 locations Including Site	24 hourly twice a week	As per CPCB Guidelines Gravimetric (High-Volume with Cyclone)	IS 11255(Part 1):1985
SO ₂			Improved West & Gaeke	IS 5182(Part 2):2001
NO _x			Modified Jacob Hochheiser	IS 5182(Part 6):1975
CO		8 hourly twice a week	NDIR Method	IS 5182(Part 10):1999
B. Noise				
Hourly equivalent noise levels	8 locations including Project site.	Frequency Once in season	Integrated Sound Level Measurement Instrument, DT - 805 issued by Mextech	IS: 4954-1968 as adopted by CPCB. CPCB/ OSHA CPCB/ IS:5954-1968
Hourly equivalent noise levels	--	Once		
Hourly equivalent noise levels	Site	Once in season		
C. Water				
Parameters for water quality	8 locations Including Site	Once in season		
Colour (in hazen units)			Visual Method	IS : 3025 (P-4) 1983
Odour			Manual	IS : 3025 (P-5) 1983

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
Temperature °C			Thermometer	IS 3025(Part 9):1984
pH			pH meter	IS : 3025 (P-11)1983
Turbidity (NTU)			Nephelometer	IS 3025(Part 10):1984
Total Dissolved Solids (mg/l)			Gravimetric	IS : 3025 (P-16) 1984
Biochemical Oxygen Demand (mg/l)			DO consumption in 3 days at 27°C	IS : 3025 (P-44) 1993
Carbonate as CaCO ₃ (mg CaCO ₃ /l)			Titrimetric	IS 3025(Part 51):2001
Coliform (No./100 ml)			MPN	IS : 5401
Fecal Coliform			MPN	IS : 5401
Sodium as Na (mg/l)			Flame photometry	IS 3025(Part 45):1993
Potassium as K (mg/l)			Flame photometry	IS 3025(Part 45):1993
Chloride as Cl (mg/l)			Argentometric titration	IS 15210(Part 0/Sec 0):2002/ ISO 8762
Nitrite (mg N/L)			Colorometry	
Chemical Oxygen Demand (mg/l)			Potassium dichromate method	
Magnesium (mg CaCO ₃ /l)			EDTA Titrimetric	IS 3025(Part 46):1994
Sulphate (mg/l)			Turbidimetry	IS 3025(Part 24):1986

D. Land Environment

Soil Texture pH Electrical Conductivity Bulk density Porosity Total organic carbon	8 sample from project sit as well as nearby agriculture land.(soil samples has been collected as per BIS specifications)	Season wise	Collected and analyzed as per soil analysis reference book, M.I. Jackson and soil analysis reference book by C.A. Black	Once in a year.
---	--	-------------	---	-----------------

Attributes & Parameters	Sampling		Measurement Method	Protocol											
	No. of stations	Frequency													
N, P, K, Zinc, Cd Chloride, Alkali metal, permeability, Water holding capacity, Cu, Iron as Fe, Moisture content, Boron as B															
Land use/ Landscape Location code Total project area Topography Drainage (Natural) Cultivated, forest, plantations, water bodies, roads and settlements		--	Global Positioning System Toposheet (1:50,000) Satellite Imagery* (1:50,000)												
E. Biological Environment															
<table border="1"> <tr><td>Plants</td></tr> <tr><td>Butterflies</td></tr> <tr><td>Amphibians</td></tr> <tr><td>Reptiles</td></tr> <tr><td>Birds</td></tr> <tr><td>Mammals</td></tr> </table>	Plants	Butterflies	Amphibians	Reptiles	Birds	Mammals	--	Three- five days in each months	<table border="1"> <tr><td>Quadrata sampling/ enumeration/ survey methods</td></tr> <tr><td>Transect method/ Visual encounter survey</td></tr> <tr><td>Visual encounter survey/ Opportunistic survey</td></tr> <tr><td>Visual encounter survey/ Opportunistic survey</td></tr> <tr><td>Point count/ Opportunistic survey</td></tr> </table>	Quadrata sampling/ enumeration/ survey methods	Transect method/ Visual encounter survey	Visual encounter survey/ Opportunistic survey	Visual encounter survey/ Opportunistic survey	Point count/ Opportunistic survey	Preliminary assessment point quarter plot-less method for terrestrial vegetation survey
Plants															
Butterflies															
Amphibians															
Reptiles															
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Mammals															
Quadrata sampling/ enumeration/ survey methods															
Transect method/ Visual encounter survey															
Visual encounter survey/ Opportunistic survey															
Visual encounter survey/ Opportunistic survey															
Point count/ Opportunistic survey															

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
			Tracks / signs and visual encounter survey	
Fauna, Avian fauna, Rare and endangered species Sanctuaries/ National park/ Biosphere reserve/ Migratory routes.	--	--	--	Secondary data to be collected from Government offices, NGO's published literature.
F. Socio-Economic Environment				
Demographic structure infrastructure resource base Economic resource base health status: Occupation pattern cultural and aesthetic attributes education	Socio- Economic observation will be based on random sampling method with access to the nearest habitation to the extent possible.	One site visit and prior to the final submission of the project.	Primary data collection through questionnaire and interviews	Secondary data from census records, statistical hand-books, toposheets, health records and relevant official records available in public domain.

Deliberation by the Committee

10.5.14 The Committee noted the following:

- i. The instant proposal is for regularization of the existing project of Rolling Mill having capacity of MS Ingots/Billets of 68,400 TPA (228TPD), MS CTD/TMT Bars & MS Round of 90,000 TPA (300TPD), Induction Furnace- 2 Nos of 8 Ton/Heat each, Heating Furnace -25 Ton/Hr.
- ii. The proposal is for regularization of existing unit in compliance of MoEF&CC letter no. F. No.-IA-J-11013/24/2022-IA-II(I) dated 13.04.2022 to Rajasthan State Pollution Control Board and order of Hon'ble National Green Tribunal in O.A. no. 55/2019(WZ) in matter of Gajubha Jesar Jadeja vs Union of India & Ors. dated 12.02.2020 & Letter no. F. No. - IA-J-11013/24/2022-IA-II(I) dated 13.04.2022.
- iii. The Commission for Air Quality Management in National Capital Region and Adjoining Areas is opinion that air pollution is generated in the reheating furnaces of the Steel rolling mills and therefore made compulsory the use of clean fuel to control air pollution and improve air quality. Commission has issued various direction in GNCTD & NCR to switch over on PNG/LSHS (Low Sulphur Heavy Stock) by 30.09.2022.

- iv. The Ministry has issued a notification on 20th July 2022 and directed that all the standalone re-rolling units or cold rolling units, which are in existence and in operation as on the date of this notification, with valid CTE and CTO from the concerned SPCB/PCC, shall apply online for grant of Terms of Reference (ToR) followed by Environment Clearance and the said units shall be granted Standard Terms of Reference and shall be exempted from the requirement of public consultation, Provided that the application for the grant of ToR shall be made within a period of one year i.e. up to 19th July 2023.
- v. The EAC deliberated on the proposal. Based on the KML file presented by the PP, the proposed Unit is brown field project and the project was operational based on the CTE/CTO obtained from the State Pollution Control Board.
- vi. The EAC noted that the instant project comes under Critically Polluted Area (CPA). PP has committed the proposed mitigation measures and detailed action plan to be submitted in the EIA/EMP Report and documents submitted in Form 1.
- vii. The EAC also noted that the instant project is located at a distance of 2.15 Km, NNW Inter-state boundary of Rajasthan & Haryana, hence PP has applied at the Central level as a Category 'A' project for obtaining EC under the provisions of the EIA Notification, 2006.
- viii. Project Proponent has submitted an undertaking in the form of affidavit in India non-judicial stamp dated 11th May, 2022 stating that there is no litigation pending against the project and/or land in which the project is set up.
- ix. The existing greenbelt is 11.96%. About 28.04% green area will be developed by the proponent in consent with RIICO Office. The PP shall implement the condition of 40% of green belt.

Recommendations of the Committee

10.5.15 After deliberations, the Committee **recommended** the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToRs enclosed at **Annexure-3 read with additional ToRs at Annexure-2:**

- (i) The implementation on the Direction issued by the Commission for Air Quality Management in National Region and Adjoining Areas.
- (ii) The implementation of the Action Plan/Mitigation measures as prescribed for the CPA/SPA, as the Unit is located in CPA/SPA.
- (iii) In compliance to Ministry's Notification vide S.O. 3250(E) dated 20th July, 2022, all the standalone re-rolling units or cold rolling units, which are in existence and in operation as on the date of this notification, with valid Consent to Establish (CTE) and Consent to Operate (CTO), applying for ToR within a period of one year i.e. up to 19th July 2023 shall be exempted from the requirement of public consultation. Therefore, in this case Public Consultation is exempted.

- (iv) The industry shall use CETP treated waste water for industrial processes to reduce the stress on Ground water resource as and when made available, accordingly the PP will incorporate the water balance in the EIA/EMP Report.
- (v) Ground water shall be abstracted only for the domestic water demand (drinking purpose only). PP shall explore the possibility of shifting to alternative source of water to meet the water requirement needs.
- (vi) The industry shall use PNG gas as per direction no. 64 of the Commission for Air Quality Management in National Region and Adjoining Areas by 30.09.2022.
- (vii) The Sahibi River and other water bodies exists nearby of the project site. The PP shall submit the suitable steps /conservation plan along with contouring, Run -off calculations, disposal etc. As a river exist nearby of the project area, so a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided.
- (viii) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.
- (ix) Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. PP shall submit an action plan for gradual phasing out of ground water consumption and switching to alternative source of water.
- (x) The PP shall submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- (xi) PP shall submit action plan for rainwater harvesting.
- (xii) Action plan for 100 % solid waste utilization shall be submitted.
- (xiii) Project proponent shall prepare layout plan showing all internal roads minimum 6m width and 9m turning radius with proper looping for smooth traffic flow, including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing.
- (xiv) Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.
- (xv) Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

- (xvi) As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.
- (xvii) Action plan to limit the dust emission from all the stacks below 30 mg/Nm³ shall be furnished.
- (xviii) Action plan for fugitive emission control in the plant premises shall be provided.
- (xix) Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
- (xx) An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in 40% of total area with a tree density of not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years.
- (xxi) An action plan for the disposal of electronic waste must be drawn up and implemented.

Agenda No. 10.6

10.6 Proposed 1X5 MVA Submerged Arc Furnace for Production of Ferro Alloys by M/s Destino Minerals and Metals Private Ltd., located at PLOT NO. B-41/3, MIDC Chandrapur, Tehsil & District Chandrapur, Maharashtra – Consideration of TOR (Violation case as per SOP 07.07.2021).

[Proposal No. IA/MH/IND/260698/2022; File No. IA-J-11011/10/2022-IA-II(IND-I)]

10.6.1 M/s. Destino Minerals and Metals Private Ltd. has made an application online vide proposal no. IA/MH/IND/260698/2022 dated 07.07.2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No.3(a) Metallurgical Industries (Ferrous and Non/ferrous) under Category “A” of the schedule of the EIA Notification, 2006 and attracts general condition due to project area being within Critically Polluted Area of Chandrapur and appraised at central level.

10.6.2 Name of the EIA consultant: M/s Min Mec Consultancy Pvt. Ltd. [S.No. 10, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2225/IA 0095 valid till 29.03.2025; Rev. 24, July 05, 2022].

Details submitted by Project proponent

10.6.3 The project of M/s Destino Minerals and Metals Private Ltd located in Plot No. B-41/3, MIDC Chandrapur, tehsil and district Chandrapur, Maharashtra is for setting up of a new 1X5 MVA submerged arc furnace for production of Ferro Manganese (12000 TPA) or Silico Manganese (10000 TPA) or Ferro Silicon (5000 TPA).

10.6.4 Environmental site settings:

Sl. No.	Particulars	Details	Remarks																								
i.	Total Land	12 ha (industrial)	-																								
ii.	Land acquisition details as per MoEF&CC O.M.dated 7/10/2014	Land is already under the possession of company and land use is Industrial.	-																								
iii.	Existence of habitation & involvement of R&R, if any.	<p>Project site: No R&R</p> <p>Study Area (nearest habitation):</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Khutala</td> <td>145 m</td> <td>NE</td> </tr> </tbody> </table>	Habitation	Distance	Direction	Khutala	145 m	NE	-																		
Habitation	Distance	Direction																									
Khutala	145 m	NE																									
iv.	Latitude and Longitude of all corners of the project site.	<table border="1"> <thead> <tr> <th>Coordinate No.</th> <th>Latitude (N)</th> <th>Longitude (E)</th> </tr> </thead> <tbody> <tr> <td>North most</td> <td>19°58'54.38" N</td> <td>79°14'19.93" E</td> </tr> <tr> <td>South most</td> <td>19°58'50.09" N</td> <td>79°14'16.13" E</td> </tr> <tr> <td>East most</td> <td>19°58'52.29" N</td> <td>79°14'21.07" E</td> </tr> <tr> <td>West most</td> <td>19°58'52.49" N</td> <td>79°14'14.90" E</td> </tr> </tbody> </table>	Coordinate No.	Latitude (N)	Longitude (E)	North most	19°58'54.38" N	79°14'19.93" E	South most	19°58'50.09" N	79°14'16.13" E	East most	19°58'52.29" N	79°14'21.07" E	West most	19°58'52.49" N	79°14'14.90" E	-									
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East most	19°58'52.29" N	79°14'21.07" E																									
West most	19°58'52.49" N	79°14'14.90" E																									
v.	Elevation of the project site	Average 190 m AMSL	-																								
vi.	Involvement of Forest land if any.	No involvement of Forest Land.	The land has been allotted by MIDC free of encumbrances																								
vii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<p>Project site: Nil</p> <p>Study area:</p> <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Water Body</th> <th>Distance & Direction</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Erai River</td> <td>2.6 E</td> </tr> <tr> <td>2</td> <td>Zarpada Nala</td> <td>7.7 SE</td> </tr> <tr> <td>3</td> <td>Motaghat Nala</td> <td>4.4 NE</td> </tr> <tr> <td>4</td> <td>Upasa Nala</td> <td>9.2 NE</td> </tr> <tr> <td>5</td> <td>Sarai Nala</td> <td>4.4 SW</td> </tr> <tr> <td>6</td> <td>Wardha River</td> <td>9.0 S</td> </tr> <tr> <td>7</td> <td>Gaontiadeo Nala</td> <td>8.0 SE</td> </tr> </tbody> </table>	Sl. No.	Water Body	Distance & Direction	1	Erai River	2.6 E	2	Zarpada Nala	7.7 SE	3	Motaghat Nala	4.4 NE	4	Upasa Nala	9.2 NE	5	Sarai Nala	4.4 SW	6	Wardha River	9.0 S	7	Gaontiadeo Nala	8.0 SE	Elevation of Erai river is around 180 m amsl, Moteghat nala is 178 m amsl and Sarai nala is 183 m amsl.
Sl. No.	Water Body	Distance & Direction																									
1	Erai River	2.6 E																									
2	Zarpada Nala	7.7 SE																									
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6	Wardha River	9.0 S																									
7	Gaontiadeo Nala	8.0 SE																									

Sl. No.	Particulars	Details			Remarks
		8	Ramala Talav	6.9 SE	
		9	Sakharwai	9.3 WNW	
		10	Vendli	1.7 S	
		11	Urjanagar	6.8 NE	
		Around 18 nalas/ rivers/ water body/ pond, etc. are also present in study area.			
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Name of the ESZ: Tadoba – Andhari Tiger Reserve Status of Notification: Notified Distance of project from ESZ: 9.8 km, NE Authenticated map of ESZ projecting distance of ESZ from project site: Not available Status of NBWL approval: Not applicable as per OM 22-43/2018-IA.II dt. 08.08.2019 since project is outside ESZ. List of Reserved and protected forests: Morwa RF (Within), Junana RF (7.1 E), Balharshah PF (9.2 SE),			Tadoba Andhari Tiger Reserve core zone is at 19 km NE from the project boundary

10.6.5 The existing project was accorded Consent to Establish vide letter no. RO-CHANDRAPUR/CONSENT/1912000503 dated 09.12.2019 for setting up of a new 1X5 MVA submerged arc furnace for production of Ferro Manganese (12000 TPA) or Silico Manganese (10000 TPA) or Ferro Silicon (5000 TPA). Consent to Operate is yet to be applied.

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

Sl. No.	Name	Proposed Units	
		Configuration	Production
1	Ferro Alloy Plant	1X5 MVA Submerged arc Furnace	Ferro Manganese- 12000 TPA or Silico Manganese- 10000 TPA or Ferro Silicon- 5000 TPA

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

Sl. No.	Raw Material	Quantity (TPA)	Source	Distance from site (kms)	Transportation Road
1.	Manganese Ore & Slag	22800	MOIL Ltd.	300 km	By Road
2.	Fe-Mn Slag	10560	Process by product	In house	Internal within plant
3.	Coke	2880	Chandrapur(Local)	20-40 km	By Road
4.	Coal	4700	Chandrapur(Local)	20-40 km	By Road

Sl. No.	Raw Material	Quantity (TPA)	Source	Distance from site (kms)	Transportation Road
5.	Dolomite	3600	Local (Wani area of Yeotmal District)	Within 40 km	By Road
6.	Coke Breeze	6000	Chandrapur(Local)	20-40 km	By Road
7.	Quartz	5200	Chandrapur(Local)	20-40 km	By Road
8.	Iron Scrap	2670	Chandrapur(Local)	20-40 km	By Road
9.	Electrode Paste	250	Chandrapur(Local)	20-40 km	By Road
	Total	58660	TPA		

10.6.8 The water requirement for the project is estimated as 30 m³/day, which will be obtained from MIDC water supply scheme.

10.6.9 The power requirement for the project is estimated as 5 MVA, which will be obtained from the MSEB electricity supply connection available at MIDC at 33 KV level.

10.6.10 The capital cost of the project is INR 1575 lakhs. The employment generation from the proposed project will be 40 persons.

10.6.11 It has been reported by PP that, there is a violation under EIA Notification, 2006 related to the project under consideration given as below:

The violation has occurred specifically in the project area wherein excavation work for foundation and construction of the foundation took place under the impression that an EC is required before starting commercial production. The Maharashtra Pollution Control Board in its Consent to Establish no. RO_CHANDRAPUR/ CONSENT/19122000503 dated 09.12.2019 at sl. no. 13 had stated “Industry shall obtain Environmental Clearance from competent authority i.e. MoEF&CC, New Delhi before starting commercial production.” Therefore, PP proceeded with the construction beyond the approved sheds as the language of the aforementioned condition led PP to believe that EC is not necessary for construction. When PP initiated the EC process, PP learnt that the construction cannot occur without EC and immediately stopped any further construction activities.

10.6.12 Proposed Terms of Reference (Baseline data collection period: December, 2021 to February, 2022):

Attributes	Parameters	Sampling	
		No. Of stations	Frequency
A. Air			
a. Meteorological Parameters	Wind speed, direction, relative humidity, temperature and rainfall	1 (Core Zone of plant)	Measured at hourly duration for 3 months
b. AAQ parameters	PM10, PM2.5, SO ₂ , NO ₂ , CO	08 (one in core zone, 7 in buffer zone of plant)	24 hourly samples, twice a week for 3 months

Attributes	Parameters	Sampling	
		No. Of stations	Frequency
	Benzene, NH ₃ , BaP, Arsenic, Selenium and Lead	08 (one in core zone, 7 in buffer zone of plant)	Twice a week at core zone for 3 months and for 1 week in buffer zone
B. Noise	Leq (Day), Leq (Night)	08 (one in core zone, 7 in buffer zone of plant)	Hourly readings taken for 24 hours, once in 3 months
C. Water			
Surface water/ Ground water quality parameters	Ground Water: Odour, turbidity, pH, EC, TDS, TSS, Hardness, Alkalinity, Sulphate, Chloride, Calcium, Sodium, Potassium, Magnesium, Iron, Fluorides, Aluminium, Silver, Barium, Boron, Bismuth, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Nickel, Selenium, Arsenic, Zinc, Mercury, Molybdenum, Nitrate Surface Water: in addition to above parameters- DO, BOD, COD, Oil & Grease, Total Coliform, E. Coli	Ground water - 08 (one in core zone, 7 in buffer zone of plant) and surface water - 08 (one in core zone, 7 in buffer zone of plant)	Once in monitoring period
D. Land			
a. Soil quality	pH, EC, CaCO ₃ , Specific Gravity, Moisture, Sodium, Potassium, Textural Classification, Grain Size analysis, Colour, Organic Carbon, Organic Matter, Phosphorous, Nitrate-Nitrogen	03 (one in core zone, 2 in buffer zone of plant)	Once in monitoring period
b. Land use	Satellite Imagery interpretation, Land use details	Of 10 km study area	Once
E. Biological			
a. Aquatic	Flora and Fauna species	Of 10 km study area	Once

Attributes	Parameters	Sampling	
		No. Of stations	Frequency
b. Terrestrial	Flora and Fauna species	Of 10 km study area	Once
F. Socio-Economic Parameter	1) Various amenities, demography, employment pattern, 2) Need assessment for CSR	1) Of 10 km study area 2) nearby villages	1) Census data 2) sample survey-once
G. Traffic	Traffic volume (PCU)	2 (buffer zone of plant)	Once in monitoring period

Written representations:

10.6.13 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter No. DMMPL/MOEF/2022-23/03 dated 02.08.2022 through email dated 02.08.2022 submitted the information w.r.t. to the following:

1. Details of additional Environmental Safeguards to be adopted and compliance to the Ministry's SOP dated 7th July 2021

The additional environmental safeguards shall be in line with the Revised Action Plan for Industrial Cluster in Critically Polluted Area, Chandrapur by MPCB, July 2020. CEPI areas in Chandrapur include four areas, one of which is MIDC Chandrapur, in which the project is located. The aforementioned Action Plans is available on the CPCB website and MPCB with all stakeholders prepared time bound action plan to improve CEPI score and gave it on page 38 of the aforementioned report. The action plan comprises of 7 major points (with several sub-points) of which points 2(a), 2(b), 2(c), 3(a) & 3(N) are to be complied by the industry. These points are addressed below with respect to proposed project:

Sl. No. in Action Plan	Description	Response of the Company
2	Mechanism to be developed for reduction of CEPI score Measures for reduction in pollution -	
a)	Enhancement in green belt from 33% to 40%.	Will be complied. The layout plan has been modified so as to have 40% area under greenbelt.
b)	Permissible limit for TPM to be reduced from 150 ppm to 50 ppm.	The unit will be complying to 50 mg/Nm ³ emission norms for its stacks and bag filters shall be accordingly designed and installed.
c)	Zero liquid discharged to be	The unit will be zero liquid discharge as

Sl. No. in Action Plan	Description	Response of the Company
	achieved by major polluting units.	any effluent generated shall be from the cooling system, which shall be 100% reutilised for green belt watering and sprinkling within the project area. The sewage will be treated in septic tank- soak pit systems, which is suitable for a proposed manpower of 40 persons.
3	Pollution control measures in MIDC area	
A)	Inspection & monitoring of air polluting industries to assess the compliance status for adequacy of APC system.	Air quality monitoring shall be carried out on commencement of operation as stipulated by MoEF&CC and MPCB.
N)	Monthly Report Submission :- WCL, CSTPS, all the private power plants, sponge iron units, cement industries, Multi-Organics ltd., Bilt & Other major industries shall submit monthly report about operation and maintenance of pollution control system and report about compliance done.	Monthly report about operation and maintenance of pollution control system and report about compliance done shall be submitted to MPCB.

In addition to above, the PP shall have the following environmental safeguards during different stages of the project:

Parameter	Construction Phase	Operation Phase
Air Quality	<ul style="list-style-type: none"> • Sprinkling of water on disturbed areas to prevent airborne dust • Washing of tyre using pressure pipe, for all incoming & outgoing trucks • PUC for all vehicles visiting the site • Covering of excavated soil, construction sand, etc to reduce wind erosion 	<ul style="list-style-type: none"> • Bag filters with fuel extraction system attached to submerged arc furnace • Covered shed for coal storage • Covered shed for ground hoper unloading point • Regular road sweeping and water sprinkling • Green belt will also act as air pollutant absorber
Water	<ul style="list-style-type: none"> • Sewage will be treated in septic tanks • No excavation in monsoon season 	<ul style="list-style-type: none"> • Zero discharge plant • 100% of the waste water from industrial processes shall be reused in sprinkling and greenbelt

Parameter	Construction Phase	Operation Phase
		watering <ul style="list-style-type: none"> • Sewage will be treated in septic tanks
Soil	<ul style="list-style-type: none"> • Excavated top soil shall be kept in designated place and used in landscaping and green belt plantation • Soil excavated for foundation work shall be kept in designated area and filled back after completion of works. Excess shall be used for land leveling. • Excavation works shall be carried out with simultaneous sprinkling • Soil dumps shall be covered to reduce erosion in rains and due to wind 	<ul style="list-style-type: none"> • Stabilization of soil through plantation • Impervious liner below open storage areas
Noise	Use of well-maintained machinery to minimize noise at source	<ul style="list-style-type: none"> • Machinery will be installed in sheds, which will reduce noise propagation to surroundings • Green belt will also act as noise absorber
Ecology	Initiate plantation in green belt	40% of total project area shall be under green belt
Socio economics	Employment to construction labour	Employment for 40 persons during operation, majority to locals

Furthermore, in compliance to MoEF&CC circular dated 07.07.2021, the following shall be prepared after receipt of ToR:

- (a) Damage Assessment Plan
- (b) Remedial Plan
- (c) Community Augmentation Plan

2. The details of the violation committed may please be elaborated in detail along with the supporting documents

As per the MoEF&CC circular dated 07.07.2021, the proposed project falls under “New project” and “where operation has not commenced” .

The land was originally allotted to M/s Swarnleela Energies Pvt. Ltd. and purchased by M/s Destino Minerals Pvt. Ltd. (applicant). The chronology of the activities leading upto the construction are as follows:

Date	Activity
------	----------

Date	Activity
26.03.2014	<u>Allotment of the plot to first allottee</u> M/s Swarnleela Energies Pvt. Ltd.
22.01.2019	<u>Building plan approval for first allottee</u> vide letter no. DE/PLAN/IFMSA/A29925/2019 for 2683.58 sq.m. built up area, which comprised of Coal Shed (270 sq.m.), Office (180 sq.m.), Shed-3 (1468.58 sq.m.) and Shed-4 (765 sq.m.).
06.02.2019	<u>Consent for transfer of the lease</u> of the above plot of land bearing No. B-41/3 admeasuring 12000 sq.m. was granted by MIDC in favour of M/s Destino Minerals and Metals Pvt. Ltd. for manufacture of Ferroalloys vide letter No. MIDC/RO (NGP)/CDR/LMS-323/481/2019. The consent is subject to four conditions, first two of which are as follows – a) Differential premium payment to MIDC (already made), and b) Completion of the factory building and works on the said plot of land on the production of a completion certificate from the Executive Engineer of the Corporation.
09.12.2019	<u>Consent to Establish</u> granted by Maharashtra Pollution Control Board vide letter no. RO_CHANDRAPUR/CONSENT/19122000503 dated 09.12.2019.
20.01.2020	<u>Supplementary Agreement</u> was made and registered between MIDC (Grantor, First Part), M/s Swarnleela Energies Pvt. Ltd. Chandrapur (Licensee, Second Part) and M/s Destino Minerals and Metals Pvt. Ltd. Chandrapur (Transferee, Third part)
18.11.2021	<u>Building plan approval to second allottee</u> by MIDC vide their letter No. DE/PLAN/IFMS/E-45065/2021 for an area of 2615.01 sqm built up area, which comprised of Activity shed (A) (924.30 sq.m.), T&P Shed (1325.82 sq.m.), Coal Shed (181.44 sq.m.) and Godwan & WC (183.45 sq.m.), with a condition at point no. 18 that “...This permission stands canceled, if no construction work is started within 12 months from the date of issue of this letter or the date given in the agreement to lease to start construction work, whichever is earlier.”
20.11.2021	<u>Construction of sheds</u> commenced
01.02.2022	<u>Construction of sheds</u> completed

As in the submitted photographs there are only sheds and no construction has been undertaken below/ inside these sheds for any activity related to the project. These sheds were sanctioned by MIDC vide building permission no. DE/PLAN/IFMS/E-45065/2021 (copy already uploaded with Form 1) for an area of 2615.01 sq.m. built up area on 18.11.2021 and construction of sheds is exempt from environment clearance under 8(a) as per Notification SO 3252(E) dated 22.12.2014. PP had to complete these sheds else the permissions granted to them would have been canceled. Also the transfer of the lease will also be completed only on completion of these sheds. The same are shown in the submitted google earth image.

The violation has occurred specifically to the area marked as “5. Additional disturbed area” in submitted image, wherein excavation work for foundation and construction of the foundation took place under the impression that an EC is required before starting commercial production. The Maharashtra Pollution Control Board in its Consent to Establish no. RO_CHANDRAPUR/

CONSENT/19122000503 dated 09.12.2019 at sl. no. 13 had stated “Industry shall obtain Environmental Clearance from competent authority i.e. MoEF&CC, New Delhi before starting commercial production. “Therefore, PP proceeded with the construction beyond the approved sheds as the language of the aforementioned condition led PP to believe that EC is not necessary for construction. When PP initiated the EC process, that is when PP learnt that the construction cannot occur without EC and PP immediately stopped any further construction activities.

3. The cost of the activities carried out under violation certified by CA

The certificate from the Chartered Accountant for the activities carried out till date is submitted by PP. The total project cost incurred till date is Rs. 80.5 lakhs of which the violation related activities has been estimated as Rs. 40.74 lakhs i.e. foundation for plant and machinery. As per the MoEF&CC circular dated 07.07.2021, the proposed project falls under “New project” and “where operation has not commenced” . The penalty is 1% of the total project cost incurred up to the date of filing of application along with EIA/EMP report. The percentage rate shall be halved if the project proponent suo moto reports such violations without such violations coming to the knowledge of the Government either on inquiry or complaint.

4. Use of DG set

It was discussed in the EAC meeting regarding use of DG set in critically & severely polluted areas. PP submit that the “Revised Action Plan for Industrial Cluster in Critically Polluted Area, Chandrapur by MPCB, July 2020 does not put any restriction on the same. Moreover, DG set shall function only for the purpose ensuring that cooling water circulation is maintained in the furnace cooling systems after power failure. PP do not intend to operate the furnace on DG sets. This will prevent any untoward incident from occurring because uncooled water could lead to rise in steam pressures and pipe bursts. Hence, for the safety of the environment, property and manpower, it will be necessary to run the cooling pumps even in power failure. Hence, PP will approach the MPCB and take specific permission for the same.

Deliberations of the Committee

10.6.14 The EAC noted the following:

- i. The instant proposal is for seeking ToR for undertaking EIA study for setting up of a new 1X5 MVA submerged arc furnace for production of Ferro Manganese (12000 TPA) or Silico Manganese (10000 TPA) or Ferro Silicon (5000 TPA).
- ii. Proposed project is listed under category ‘B’ of the schedule of the EIA Notification, 2006 and attracts general condition due to falling in Critically Polluted Area of Chandrapur and being appraised at Central Level.
- iii. The EAC noted that violation has occurred specifically in the project area wherein excavation work for foundation and construction of the foundation took place under the impression that an EC is required before starting commercial production. PP obtained CTE vide letter dated 09.12.2019 and proceeded with the construction beyond the approved sheds as the language of the aforementioned condition led PP to believe that

EC is not necessary for construction. Accordingly, PP has made application under provision of EIA notification of 14/03/2017 for violation cases and requested to consider the proposal as per the Standard Operating Procedure (SoP) issued by the Ministry on 7/07/2021.

- iv. The EAC also deliberated on the written submissions submitted by the proponent and found it satisfactory.

Recommendations of the Committee

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

- i. The State Government/SPCB to take action against the project proponent under the provisions of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC.
- ii. Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).
- iii. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
- iv. The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter (13) in the EIA report by the accredited consultants.
- v. Budget of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be completed within three years and to be prepared accordingly.
- vi. The project proponent shall require to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.
- vii. The implementation of the Action Plan/Mitigation measures as prescribed for the CPA/SPA, as the Unit is located in CPA/SPA.
- viii. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
- ix. Action plan for fugitive emission control in the plant premises shall be provided.
- x. Project proponent shall submit a study report on De-carbonization program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and

supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

- xi. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.
- xii. An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in 33% of the project area with a tree density shall not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years.
- xiii. Project proponent shall prepare layout plan showing all internal roads minimum 6m width and 9m turning radius for smooth traffic flow inside including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing.
- xiv. Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.
- xv. Action plan for rain water harvesting shall be submitted.

Consideration in Modification in TOR Proposal

Agenda No. 10.7

10.7 Expansion of existing Sponge Iron Plant (2 x 100 TPD) by installation of Sponge Iron Plant of capacity 350 TPD capacity for manufacturing DRI-105000 TPA, Steel Melting Shop-135000 TPA, Rolling Mill (1,20,000 TPA), Captive Power Plant of 22 MW (WHRB#13 MW + Coal Based#9 MW) with additional facility of 90,000 TPA Sinter plant and Ferro Alloy Plant (2 x 9 MVA + 2 x 12 MVA SAF) By M/s MB Sponge & Power Limited”, located at Khasra No. 1758,1759,1762-1770, 1773-1783, 1789-1793, 1798/5561, 1798/5562 Village+PO- Hijalgora, District- West Bardhman, West Bengal - Consideration of Amendment in TOR.

[Proposal No. IA/WB/IND/278372/2022; File No. J-11011/310/2019-IA-II(I)]

10.7.1 M/s M.B Sponge & Power Ltd., have made an application online vide proposal no. IA/WB/IND/278372/2022 dated 05.05.2022 along with Form 3, revised Form-1 and revised PFR seeking amendment in Terms of Reference accorded by the Ministry vide letter no. J-11011/310/2019-IA-II(I) dated 02.01.2020. 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 and appraised at central level.

10.7.2 Name of the EIA consultant: M/s. GRC INDIA PVT LTD. [S No 157, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/SA 0155 valid till 22.02.2023; Rev. 24, July 05, 2022].

Details submitted by Project proponent

10.7.3 M/s M.B Sponge & Power Ltd. had earlier applied for grant of ToR vide proposal no. IA/WB/IND/278372/2022 dated 05.05.2022 for Proposed expansion of existing sponge iron plant (2x100 TPD) by installation of sponge iron plant of 350 TPD capacity for manufacturing DRI -1,05,000 TPA, Steel Melting Shop - 1,35,000 TPA, Rolling mill – 1,20,000 TPA and Captive Power Plant of 22 MW located at village Hijalgora, P.S. Jamuria, District Paschim Bardhaman, West Bengal. The proposal was initially considered in 13th meeting of the Re-constituted EAC (Industry-I) held during 27-29th November, 2019. Accordingly, TOR was issued vide letter no. J-11011/310/2019-IA-II(I) dated 02.01.2020.

10.7.4 The instant proposal is for seeking amendment in ToR dated 02.01.2020 with respect to revised plant configuration and capacity through addition of Sinter plant of capacity 300 TPD and Ferro-Alloy Plant of capacity 2 x 9 MVA and 2 x 12 MVA in proposed expansion.

10.7.5 Changes in configuration & capacity of units in granted ToR vis-à-vis with proposed ToR are as follows:

Sr. No.	Unit	Existing Configuration	As per TOR dated 02.01.2020	Proposed Amendment / change in configuration	Final Configuration after proposed amendment
1	DRI (Sponge Iron production)	2 X 100 TPD (60000 TPA)	1 X 350 TPD (105000 TPA)	-	2 X 100 TPD + 1 X 350 TPD (165000 TPA)
2	SMS (Billets production)	-	3 x 15 TPH IF (135000 TPA)	-	3 x 15 TPH IF (135000 TPA)
3	Rolling Mill	-	400 TPD (120000 TPA)	-	400 TPD (120000 TPA)
4	Ferro Alloy Plant	-	-	(2 X 9 MVA SAF & 2 x 12 MVA SAF) Ferro Manganese – 89481 TPA Silico Manganese – 38989 TPA Ferro Silicon – 71820 TPA	(2 X 9 MVA SAF & 2 x 12 MAV SAF) Ferro Manganese – 89481 TPA Silico Manganese – 38989 TPA Ferro Silicon – 71820 TPA
5	Sinter Plant	-	-	300 TPD (90000 TPA)	300 TPD (90000 TPA)
6	Captive Power Plant	-	22 MW	-	22 MW [WHRB 2x70 TPH=4 MW 1 x 40 TPH=9 MW & AFBC 1x40 TPH=9 MW]

10.7.6 Changes in the Raw Material Requirement: Addition of following raw materials w.r.t. Sinter Plant and Ferro Alloy Plant –

(A) Sinter Plant

Raw material	TPD	TPA	Source
Iron Ore Fines	255	76500	Out Source
Limestone (HS)	15	4500	Out Source
Limestone (LS)	18	5400	Out Source
Lime	4	1200	Out Source
LD Slag	3	900	SMS Shop
Sinter Return Fines	5	1500	Sinter Plant

(B) Ferro Alloy Plant

S.No	Name	Quantity (TPA)	Source	Transportation
Silico Manganese				
1	Manganese Ore	132867	MOIL; OMC; and other private mines	Road through covered trucks
2	Coke	32319	Open Market	Road through covered trucks
3	Coal	25137	Nearby Coal Mines	Road through covered trucks
4	Dolomite	10772	Open Market	Road through covered trucks
5	Quartz	15800	Open Market	Road through covered trucks
6	Carbon Paste	1436	Open Market	Road through covered trucks
7	Ferro Manganese Slag	32318	In-house	Road through covered trucks
Ferro Manganese				
1	Manganese Ore	196859	MOIL; OMC; and other private mines	Road through covered trucks
2	Coke	40267	Open Market	Road through covered trucks
3	Coal	23265	Nearby Coal Mines	Road through covered trucks
4	Dolomite	22370	Open Market	Road through covered trucks
5	Carbon Paste	1789	Open Market	Road through covered trucks
Ferro Silicon				
1	Quartzite	72130	Open Market	Road through covered trucks
2	Mill Scale	14816	Open Market	Road through covered trucks
3	Charcoal	87692	Open Market	Road through covered trucks
4	Coke Breeze	9747	Open Market	Road through covered trucks
5	Carbon Paste	1949	Open Market	Road through covered trucks

10.7.7 Other changes proposed in ToR:

Plant Equipment /Facility	Configuration As per ToR dated 02.01.2020	Additional Requirement as per Proposed Amendment	Final Configuration after Amendment	Remarks
Water Requirement	1257 KLD	+380 KLD	1637 KLD	Additional water Required
Manpower	336	+225	561	Additional

Required				Manpower
Power Requirement	18.5 MW	+39 MW	57.5 MW	State Electricity Board
Land Area	3.36 Ha	+12.29 Ha	15.65 Ha	Under possession of company
Project Cost	274 Cr	+82 Cr	356 Cr	Project Cost Increased
Green Area	1.1 Ha	4.82 Ha	5.92 Ha	33% of plot area

10.7.8 Reason for seeking amendment in ToR: As per Market Scenario, Proponent has planned to add Sinter Plant (300 TPD) and Ferro-Alloy Plant (2 x 9 MVA & 2 x 12 MVA).

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

Written submission by PP:

10.7.10 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 02.08.2022 through email dated 03.08.2022 submitted the information w.r.t. to the following:

1. Adoption of Villages: PP has submitted an undertaking dated 02.08.2022 committing to adopt 2 nearby villages namely Hijalgora (located at 2 km in NE direction) and Nandi (located at 4 km in west direction) for development under CER program.

Deliberation by the Committee

10.7.11 The Committee noted the following:

- i. M/s M.B Sponge & Power Ltd. was granted ToR vide letter no. J-11011/310/2019-IA-II(I) dated 02.01.2020 for Proposed expansion of existing sponge iron plant (2x100 TPD) by installation of sponge iron plant of 350 TPD capacity for manufacturing DRI - 1,05,000 TPA, Steel Melting Shop - 1,35,000 TPA, Rolling mill – 1,20,000 TPA and Captive Power Plant of 22 MW.
- ii. The instant proposal is for seeking amendment in ToR dated 02.01.2020 with respect to revised plant configuration and capacity through addition of Sinter plant of capacity 300 TPD and Ferro-Alloy Plant of capacity 2 x 9 MVA and 2 x 12 MVA in proposed expansion.
- iii. The EAC noted that apart from the change in the configuration and capacity of the proposed project, there would be changes in raw materials and other requirements of the project as detailed in para 10.7.5, 10.7.6 and 10.7.7 above.
- iv. The EAC also deliberated on the written submissions submitted by the proponent and found it satisfactory.

Recommendations of the Committee

10.7.12 After deliberations, the Committee **recommended** the project proposal for amendment in Terms of Reference no. J-11011/310/2019-IA-II(I) dated 02.01.2020 with respect to the revised Plant configuration/capacity, raw material requirement and other changes as detailed in para 10.7.5, 10.7.6 and 10.7.7 above. EAC has also recommended the **additional TOR**

- (i) Action Plan/Details of the activities for development of Villages - Hijalgora and Nandi, as committed for its adoption, shall be submitted.
- (ii) The PP is going to use quartz, quartzite, Coke, Coal. The PP has to determine the coal dust and quartz/silica dust exposures in respirable dust (RPM) using personal/area samplers and to compare with Permissible limits as per Indian Factories Act. Report has to be furnished.
- (iii) Project proponent conduct a study on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames

DAY-2: AUGUST 2, 2022 [TUESDAY]

Consideration of Environmental Clearance Proposals

Agenda No. 10.8

10.8 Establishment of DRI Kilns (Sponge Iron -2,31,000 TPA), Induction Furnaces with LRF & CCM (MS Billets / Ingots – 99,000 TPA), Ferro Alloy Unit (FeSi-14,000 TPA / FeMn-50,400 TPA / SiMn-28,800 TPA / FeCr-30,000 TPA), WHRB based Power Plant – 16 MW (2 x 8 MW), AFBC based Power Plant - 12 MW, Briquetting plant - 200 Kg/Hr. & Brick Manufacturing unit (30,000 Bricks / Day)] by M/s Phil Steel and Power Pvt. Ltd., located at Ghutku & Nirtu Villages, Takhatpur Tehsil, Bilaspur District, Chhattisgarh- Consideration of Environmental Clearance.

[Proposal No. IA/CG/IND/230623/2021; File No. J-11011/395/2021-IA.II(I)]

[Consultant: Pioneer Enviro Laboratories & Consultants Pvt. Ltd.; Valid upto 21.09.2022]

10.8.1 M/s. Phil Steel and Power Pvt. Ltd. has made an online application vide proposal no. IA/CG/IND/230623/2021 dated 12/07/2022 along with copy of EIA/EMP report and Form – 2 seeking Environmental Clearance under EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical & 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

10.8.2 Name of the EIA consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [Sl. No. 137, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/1922/SA0148; valid upto 21.09.2022, Rev. 24, July 05, 2022].

Details submitted by Project proponent

10.8.3 The project of M/s. Phil Steel & Power Private Limited at Ghutku & Nirtu Villages, Takhatpur Tehsil, Bilaspur District, Chhattisgarh is for Establishment of New DRI Kilns (2,31,000 TPA), Induction Furnace with matching LRF & CCM (Billets / Ingots) (99,000 TPA), Ferro Alloy Unit 2x9 MVA (FeSi- 14000 TPA / FeMn-50400 TPA / SiMn-28,800 TPA / FeCr-30000 TPA), Briquetting Plant - 200 kg/hr, WHRB based Power Plant – 20 MW (2x8 MW), AFBC based Power Plant - 12 MW, Briquetting plant - 200 Kg/Hr and Brick Manufacturing Unit of 30,000 Bricks/day.

10.8.4 Environmental Site Settings:

S.No.	Particulars	Details				Remarks
i.	Total land	15.91 Ha. (39.32 Acres) [Private Land]				Land use – Agriculture
		S.No	Type of land	Area (in Ha.)	Area (in Acres)	

S.No.	Particulars	Details				Remarks																																																									
		1.	Private Land	15.91	39.32																																																										
		2.	Govt. Land	Nil	Nil																																																										
		3.	Industrial Land	Nil	Nil																																																										
		4.	Forest Land	Nil	Nil																																																										
			Total land	15.91	39.32																																																										
ii.	Land acquisition details as per MoEF&CC, O.M. dated 7/10/2014	Total land is under the possession of management.				-																																																									
iii.	Existence of habitation & involvement of R&R, if any.	Project site: No habitation exists in the plant site Study Area <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Kahipara</td> <td>0.6 kms.</td> <td>South</td> </tr> </tbody> </table>				Habitation	Distance	Direction	Kahipara	0.6 kms.	South	--																																																			
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v.	Elevation of the project site	284 m - 285 m AMSL				--																																																									
vi.	Involvement of Forest Land, if any	No Forest Land is involved.				--																																																									
vii.	Water body	Project Site: Unnamed canal passes across the site in																																																													

S.No.	Particulars	Details	Remarks
	(Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.,) exists within the project site as well as study area	small portion of site on western side where culvert will be constructed. Study Area: Two ponds are at a distance of 100 m (South) Arpa river – 1.9 Kms. (East) Gokena Nallah – 2.9 Kms. (West) Kurung Right Bank Canal – 5.7 Kms. (East) Ghongha Nadi – 7.7 Kms. (West)	--
viii.	Existence of ESZ / ESA / National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. if any within the study area	Nil.	--
ix.	Industries in the area	Group company coal washery unit is adjacent to the site and facility of railway siding is available which will be utilized for the proposed project also.	

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

S. No.	Units (Products)	Plant Configuration	Production Capacity
1.	DRI Kilns (Sponge Iron)	2 x 350 TPD	2,31,000 TPA
2.	Induction Furnaces (Billets / Ingots)	2 x 15 T IF with 6/11 Caster	99,000 TPA
3.	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
4.	Power Plant (28 MW)	WHRB	2 x 8 MW
		AFBC	1 x 12 MW
5.	Brick Manufacturing Unit	30,000 Bricks/day	30,000 Bricks/day
6.	Briquetting Plant	200 kg/hr	200 kg/hr.

10.8.6 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)	Sources	Distance from site (in Kms.)	Mode of Transport	
1.	For DRI Kilns (Sponge Iron) – 2,31,000 TPA					
a)	Pellets (100 %)	3,46,500	Chhattisgarh / Orissa	~ 300 Kms.	By rail	
	or					
b)	Iron ore (100%)	3,69,600	Barbil, Orissa NMDC, Chhattisgarh	~ 500 Kms.	By rail	
c)	Coal	Indian	3,00,300	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By Rail & By Road (in covered trucks)
		Imported	1,92,192	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route & by Rail
d)	Dolomite	11,550	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)	
2.	For Steel Melting Shop (Billets/ Ingots) – 99,000 TPA					
a)	Sponge Iron	1,00,000	Own generation	---	Through covered conveyers	
b)	MS Scrap / Pig Iron	15,000	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)	
c)	Ferro alloys	5,000	Own generation	---	By road (through covered trucks)	
3.	For FBC Boiler [Power Generation 1 x 12 MW]					
a)	Indian Coal (100 %)	80,190	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road	
	OR					
b)	Imported Coal (100 %)	51,400	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route & By Rail	
	OR					
c)	Dolochar + Indian Coal	Dolochar	46,200	In house generation	---	through covered conveyers
		Indian Coal	57,100	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By Rail /By Road (through covered trucks)
	OR					
d)	Dolochar + Imported Coal	Dolochar	46,200	In house generation	---	through covered conveyers
		Imported Coal	26,200	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route &By Rail
4.	For Ferro Alloys (2 x 9 MVA)					
6 (i)	<i>For Ferro Silicon – 14,000 TPA</i>					
a)	Quartz	24,300	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered	

S No	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
					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)	Bagfilter dust	200	Own generation	---	---
6 (ii)	<i>For Ferro Manganese – 50,400 TPA</i>				
a)	Manganese Ore	68,400	MOIL / OMC	~ 500 Kms.	By Rail
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	7200	Inhouse Generation	---	By road (through covered trucks)
e)	Electrode Paste	630	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
f)	Bagfilter dust	1000	Own generation	---	---
6 (iii)	<i>For Silico Manganese –28,800TPA</i>				
a)	Manganese Ore	48,600	MOIL / OMC	~ 500 Kms.	By Rail
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	7740	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
g)	Bagfilter dust	200	Own generation	---	---
6 (iv)	<i>For Ferro Chrome – 30,000 TPA</i>				
a)	Chrome Ore	56,700	Sukinda, Odisha Import, South Africa	~ 500 Kms. ~ 600 Kms. (from Vizag)	By Rail Through sea route &By Rail

S No	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms. Port)	Mode of Transport
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	In-house 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	---	---

Note: Railway siding of group company which is very close to the project site will be utilized for transportation of major raw materials.

10.8.7 Water required for the proposed project will be 1304 KLD which will be sourced from Arpa River (which is at a distance of 1.9 Kms. from the project site). Water drawl permission from Water Resource Department, Chhattisgarh is under process. State Investment Promotion Board (SIPB) has issued a assurance letter as per MoU enter with Govt. of Chhattisgarh, for supply of water from Arpa River.

10.8.8 Power required for proposed project will be 33 MW. Power required will be met partly from 28 MW Captive Power Plant and remaining 5 MW from State grid.

10.8.9 Baseline Environmental Studies:

Period	15 th October 2021 to 15 th January 2022
Ambient Air Quality at 8 locations	<ul style="list-style-type: none"> PM_{2.5} = 18.5 to 38.7 µg/m³ PM₁₀ = 34.4 to 66.5µg/m³ SO₂ = 7.0 to 19.6 µg/m³ NO_x =7.2 to 28.4 µg/m³ CO = 314 to 1085 µg/m³
AAQ modeling (incremental GLC's) ISC-3 model is used	<ul style="list-style-type: none"> PM₁₀ = 1.42 µg/m³ @ 8.2 Kms. distance SO₂ = 3.3 µg/m³ @ 9.9 Kms. distance NO_x = 10.56 µg/m³ @ 9.6 Kms. distance CO = 4.96 µg/m³
Ground water quality at 8 locations	<ul style="list-style-type: none"> pH : 7.0 to 8.1 TSS : 0.32 to 0.6 mg/l TDS : 327 to 604 mg/l Total Hardness : 206 to 270 mg/l Chlorides : 164 to 311 mg/l

	<ul style="list-style-type: none"> Fluoride : 0.39 to 0.62 mg/l Iron : 0.032 to 0.055 mg/l 																																									
Surface water quality at 3 locations	<ul style="list-style-type: none"> pH : 7.2 to 8.0, DO (in mg/l) : 4.0 to 6.8, TDS (in mg/l) : 275 to 501, BOD (in mg/l) : 2.0 to 3.0 COD (in mg/l) : 8.1 to 13.6, Sulphates (in mg/l) : 88 to 168, Chlorides (in mg/l) : 144 to 258 																																									
Noise level at 8 locations	<ul style="list-style-type: none"> The equivalent day time noise levels in the study zone are ranging from 44.20 dBA to 51.40 dBA. The equivalent Night time noise levels in the study zone are ranging from 35.50 dBA to 42.20 dBA. The equivalent day-night noise levels in the study zone are ranging from 44.73 dBA to 51.72 dBA. 																																									
Traffic assessment study findings	<p>Traffic study has been conducted at NH # 130 which is approximately 7.5 Kms. from the plant site.</p> <p>Transportation of raw material, fuel, & finished product will be done 100 % by road.</p> <p>Existing PCU is 802.5 PCU/Hr on NH #130 and existing level of service(LOS) is :</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/Hr.)</th> <th>C (Capacity in PCU/Hr.)</th> <th>Proposed V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH # 130</td> <td>802.5</td> <td>1500</td> <td>0.54</td> <td>C</td> </tr> </tbody> </table> <p>PCU load after proposed project will be 802.5 PCU/Hr. + 34.0 PCU/Hr. and level of service (LOS) will be</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/ Hr.)</th> <th>C (Capacity in PCU/Hr.)</th> <th>Proposed V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH#1</td> <td>836.5</td> <td>1500</td> <td>0.56</td> <td>C</td> </tr> </tbody> </table> <p>Level of Service (LOS) of the Road as per IRC 73: 1980</p> <table border="1"> <thead> <tr> <th>V/C</th> <th>LOS</th> <th>Performance</th> </tr> </thead> <tbody> <tr> <td>0.0 – 0.2</td> <td>A</td> <td>Excellent</td> </tr> <tr> <td>0.2 – 0.4</td> <td>B</td> <td>Very Good</td> </tr> <tr> <td>0.4 – 0.6</td> <td>C</td> <td>Good</td> </tr> <tr> <td>0.6 – 0.8</td> <td>D</td> <td>Fair/ Average</td> </tr> <tr> <td>0.8 – 1.0</td> <td>E</td> <td>Poor</td> </tr> <tr> <td>1.0 &Above</td> <td>F</td> <td>Very Poor</td> </tr> </tbody> </table> <p>Capacity as per IRC 73: 1980 guide line for capacity of the roads</p> <p>Conclusion: As per the above the LOS of the ROAD is categorized under</p>	Road	V (Volume in PCU/Hr.)	C (Capacity in PCU/Hr.)	Proposed V/C Ratio	LOS	NH # 130	802.5	1500	0.54	C	Road	V (Volume in PCU/ Hr.)	C (Capacity in PCU/Hr.)	Proposed V/C Ratio	LOS	NH#1	836.5	1500	0.56	C	V/C	LOS	Performance	0.0 – 0.2	A	Excellent	0.2 – 0.4	B	Very Good	0.4 – 0.6	C	Good	0.6 – 0.8	D	Fair/ Average	0.8 – 1.0	E	Poor	1.0 &Above	F	Very Poor
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	‘C’, which implies “GOOD”. Hence the existing road is capable of taking the additional vehicular traffic due to the proposed project.
Flora and fauna	No Endangered species of Flora and Schedule I species of Fauna observed in the study area.

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

S.No.	Waste / By product	Quantity (TPA)	Proposed method of disposal
1.	Ash from DRI	41,580	Will be utilised in the proposed Brick Manufacturing Unit
2.	Dolochar	46,200	Will be used in proposed FBC power plant as fuel.
3.	Kiln Accretion Slag	2,079	Will be used in road construction & utilised in the proposed brick manufacturers.
4.	Wet scrapper sludge	10,626	Will be used in road construction & utilized in the proposed brick manufacturers.
5.	SMS Slag	9,900	Slag from SMS will be crushed and iron will be recovered & then remaining non -magnetic material being inert by nature will be used as sub base material in road construction & utilized in the proposed brick manufacturing unit.
6.	Ash from Power Plant (with Imported Coal + dolochar)	30,865	Will be utilized in the proposed brick manufacturing unit
7.	Slag from FeMn	30,294	Will be reused in manufacture of SiMn as it contains high SiO ₂ and Silicon.
8.	Slag from FeSi	1,010	Will be given to Cast iron foundries
9.	Slag from SiMn	30,888	will be used for Road construction / will be given to slag cement manufacturing
10.	Slag from FeCr	27,918	Will be processed in jigging plant for Chrome recovery. After Chrome recovery, the left-over slag will be analysed for Chrome content through TCLP test, if the Chrome content in the slag is within the permissible limits, then it will be utilised for Road laying /brick manufacturing. If Chrome content exceeds the permissible limits, it will be sent to nearest TSDF.

Hazardous waste generation, storage & disposal:

1.Waste oil: 1.5 KL / Annum

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

2.Used Batteries

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

10.8.11 Public Consultation:

Date of advertisement	17 th March 2022
------------------------------	-----------------------------

Name of newspapers	1) "Dainik Bhaskar", Bilaspur (Hindi) 2) "The Pioneer" New Delhi (English)
Date on which Public Hearing conducted	19 th April 2022
Venue	Premises on Higher Secondary School, Ghutku Village, Takhatpur Tehsil, Bilaspur District, Chhattisgarh
Attended by	Additional District Magistrate
Issues are	<ul style="list-style-type: none"> • Ground water depletion, • No study has been done for water pollution, air pollution, noise pollution, • No CSR activity has been done, • Livelihood of people is affected, • Employment, • Fugitive emission, • Pollution, • Crop damage, • Contamination of soil

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

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
A). Based on Need Based & SIA Study						
1	Community & Infrastructure Development Programmes					
	i) Construction of public toilets	Physical Nos. & village	3 nos. in Ghutku (v) & 3 nos. in Nirtoo (v)	2nos. in Joki (v) & 2 Nos. in Turkadih (v)	2 no. in Lokhandi (v) & 2 Nos. in Pondi (v)	35
		Budget in Lakhs	15	10	10	
	ii) Providing LED Street lighting with solar panels	Physical Nos. & village	10 nos. in Turkadih(v) & 20 nos. in Lokhandi(v)	10 Nos. in Pondi (v) & 20 nos. in Ghutku (v)	20 nos. Nirto (v) & 10 Nos. in Joki (v)	13.5
		Budget in Lakhs	4.5	4.5	4.5	
	iii) Mineral water plants	Physical Nos. & village	2 nos. in Joki (v) & 2 nos. in Pondi (v)	3 nos. in Ghutku (v) & 2 Nos. in Lokhandi (v)	2 no. in Nirto (v) & 2 Nos. in Turkadih(v)	39
		Budget in Lakhs	12	15	12	
					Total	87.5
2	Education					
	i) Providing Sport	Physical	10 nos. in	10 no. in Ghutku (v)	10 Nos. in Joki (v)	4

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
	kits for schools	Nos. & village	Nirtoo (v) & 10 Nos. in Lokhandi (v)			
		Budget in Lakhs	2	1	1	
	ii) Construction of class rooms in schools of size 8m x 5m x3 m	Physical Nos. & village	3 rooms in Ghutku (v)	2 nos. in Nirtoo (V)	2 nos. in Lokhandi (V)	35
		Budget Rs in Lakhs	15	10	10	
	iii) Providing Model Anganwadi Centre in consultation with State Women and Child Development Department	Physical Nos. & village	Joki (v) -1 No.	Lokhandi(v) – 1 No. &	Pondi (v) – 1 No.	30
		Budget Rs in Lakhs	10	10	10	
	iv) Providing furniture, computers, library, sports equipment etc. for nearby local schools of 5 villages @Rs. 10.0 Lakhs per school	Physical Nos. & village	Pondi (v) – 1 No	Nirtoo (v)- 1No	Ghutku (v) – 1 No	30
		Budget Rs in Lakhs	10	10	10	
					Total	99
3	Primary Health Centre with Ambulance	Physical Nos.& village	---	Ghutku (v)	---	50
		Budget in Lakhs		50	---	50
4	RWH pits in the surrounding villages & De-siltation of ponds	Physical Nos. & villages	2 no.s in Govt Primary School Lokhandi (v), 1 no. in Panchayat Office, Joki (v) & 2 nos. in Govt school Ghutku(v)	Increase of 1.0 m depth in storage due to De-siltation of pond in Ghutku Village (22°10'31.68"N,82°05'21.99"E)	Increase of 1.0 m depth in storage due to De-siltation of pond in Nirtoo Village (22°09'42.73"N,82°06'11.43"E)	19.5

S.NO.	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)	
		1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)		
	Budget in Lakhs	3.5	8	8	19.5	
				TOTAL (A)	256	
B). Based on Public Consultation/Hearing						
1	Impart training to the local villagers for skill development. a)DISHA Centre” along with necessary infrastructure for various vocational training program for employment generation in association with National Skill Development Mission (Automobile Repair, Welding, Electrical, Computer Hardware, Soft skills like computer programs etc.)	Physical Nos. & village	One DISHA centre			100
		Budget in Lakhs	40	30	30	
					Total (B)	100
		TOTAL	112	148.5	95.5	
	Grand Total(A+B)				356	
Recurring expenditures under CSR as per companies Act 2014						
<ul style="list-style-type: none"> Health checkup will be carried out periodically in surrounding villages i.e. Nitroo, Lokhandi, Joki,Pondi, Turkid @ Rs 5.0 Lakhs every year 						

10.8.12 The capital cost of the proposed project is Rs. 217 Crores and the capital cost for environmental protection measures is proposed as Rs. 26.5 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 2.90 Crores. The employment generation from the proposed project is 250 direct & 500 Indirect. The details of cost for environmental protection measures is as follows:

S.No	Particulars	Capital Cost (Rs.in Crores)	Recurring Cost / Annum (Rs.in Lakhs)
1	Air Emission Management		
	· Electro Static Precipitators (ESP) - DRI	9.00	100
	· Fume Extraction system with bag filters	6.00	20

S.No	Particulars	Capital Cost (Rs.in Crores)	Recurring Cost / Annum (Rs.in Lakhs)
	· Stacks	3.30	7.5
	· Mechanical Dust sweepers	0.25	3.0
	· Water Sprinklers	0.20	0.5
2	Wastewater Management		
	· ETP	0.70	10
	· STP	0.40	4.0
	· Garland drains	0.40	3.0
	· Settling ponds	0.10	0.2
3	Solid waste Management		
	· Fly Ash Handling & disposal	1.20	30
	· Slag Handling & Disposal	0.20	4.0
	· Hazardous waste storage & disposal	0.10	2.5
	· Municipal solid waste storage & disposal	0.05	1.5
4	Greenbelt development	0.30	8.0
6	RWH & Storm water drain	0.60	0.2
7	Fire Safety Systems	2.00	20
8	Environmental Monitoring		
	· CEMS	0.35	2.5
	· CAAQMS	1.60	40
	· Environment Monitoring	0.00	10.5
	· Performance monitoring of APCS	0.00	2.0
9	Occupational Health & Safety		
	· Occupational Health centre	0.50	6.0
	· Personal Protective Equipment's (PPEs)	0.15	15
		26.50	290.4
	Social Infrastructure Development	3.56	
	Total EMP budget including Social Infrastructural development	30.06	290.4

10.8.13 The 5.34 Ha. (13.2 Acres) of Greenbelt will be developed within the project site. Total 14,500 nos. of saplings will be planted within the plant premises. 10 to 50m wide greenbelt will be developed all around the project site. Local DFO will be consulted in developing the green belt. The tree species to be selected for the plantation are pollutant tolerant, fast growing, wind firm, deep rooted. A three-tier plantation is proposed comprising of an outer most belt of taller trees which will act as barrier, middle core acting as air cleaner and the innermost core which may be termed as absorptive layer consisting of trees which are known to be particularly tolerant to pollutants. Greenbelt will be developed as per CPCB guidelines. 2500 plants will be planted per Hectare as per CPCB norms.

10.8.14 It is submitted that there is no violation under EIA notification 2006/no court cases/no show cause/no direction.

Written representations:

10.8.15 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 02.08.2022 through email dated 03.08.2022 submitted the information w.r.t. to the following:

S. No.	Point/Issues	Reply
1.	Revised Water Balance	PP has submitted the Revised Water Balance diagram. The water requirement has been revised to 1304 m ³ /day and the same has been updated in para 10.8.7 above.
2.	ETP shall be incorporated in Water balance	ETP is incorporated in Revised Water balance.
3.	Revised action plan for PH issues	Revised action plan for PH issues has been submitted and the same has been incorporated in para 10.8.11 above.
4.	Mitigation measures for canal passing through the project site, also confirmation of beautification of pond.	<p><u>a) Proposed Mitigation measures for Canal</u></p> <p>Small canal passes within the site in small portion on western side where culvert will be constructed. The following measures proposed will help in protection of canal:</p> <ul style="list-style-type: none"> • Effluent generated from the plant will be treated in Effluent treatment plant (ETP) and after ensuring compliance with the SPCB norms, the treated effluent will be utilised for dust suppression, ash conditioning and for greenbelt development. • Sanitary waste water will be treated in Sewage Treatment Plant (STP) and the treated sewage after ensuring compliance with the norms will be utilised for greenbelt development. • Zero Liquid discharge (ZLD) will be maintained in the plant and no effluent will be discharged outside the plant premises. • During the monsoon when there is no demand of water for greenbelt, the treated effluent will be utilised as makeup water for SMS. • All required Air pollution control measures such as ESPs, Bagfilters, covered conveyers, mechanical dust sweepers, dust suppression system, Dry fog systems, mist cannon sprayers, etc. will be provided and operated duly ensuring compliance with the norms. • All solid waste utilisation/disposal will be in accordance with the permitted procedures such as utilisation of dolochar as fuel in FBC Boiler, utilisation of ash, dust, slag in captive brick making unit etc. <p>The following measures help to prevent the soil erosion:</p> <ul style="list-style-type: none"> • Berms will be constructed to prevent the soil erosion. • 10m wide lawns with Vetiver Grass will be developed on either side of the canal. This will prevent the soil erosion.

S. No.	Point/Issues	Reply																		
		<ul style="list-style-type: none"> • Building check dams <p><i>b) Proposed beautification for Pond</i> Beautification of pond will be done and access will be provided to outside people for recreational purpose.</p>																		
5.	Commitment for adoption of villages	PP confirm that they will adopt two villages i.e. Karihipara & Nirtu for socio economic developmental activities																		
6.	Commitment for plantation of 500 no. of saplings along canal & near pond during upcoming monsoon	PP confirm that, they will plant 500 no. of saplings along the canal side and near the pond during upcoming monsoon.																		
7.	Storage & safety details pertaining to HCl	pH of boiler blowdown will be alkaline and will be using HCl for neutralization purpose. Requirement of HCl will be 0.84 Kg/day. All safety precautions will be taken up in accordance with Material Safety Data Sheet is submitted.																		
8.	Water permission is sought for more than the required quantity, company should restrict water requirement to 1472 KD	PP assure that water requirement will not exceed 1304 KLD, as per revised water balance and the same has been updated in para 10.8.7 above.																		
9.	Details pertaining to carbon foot prints and carbon sequestration	<p><u>Carbon Footprint</u></p> <ul style="list-style-type: none"> • Total Steel Production (Billets / Ingots = 99,000 TPA + Ferro Alloys – FeMn = 50,400 TPA) = 1,49,400 TPA • CO₂ generation per tonne of steel production: 1.9 tons • Total CO₂ generation per annum: 1,49,400 x 1.9 = 2,83,860 tons/annum • CO₂ absorption per tree: 25 Kg/annum = 0.025 tons/annum <p><u>Carbon Footprint</u></p> <ul style="list-style-type: none"> • No. of trees required: 2,83,860 / 0.025 = 11,354,400 • This will be implemented in the 10 years period as show below: <table border="1"> <tbody> <tr> <td>1st Year</td> <td>1,135,440</td> </tr> <tr> <td>2nd Year</td> <td>1,135,440</td> </tr> <tr> <td>3rd Year</td> <td>1,135,440</td> </tr> <tr> <td>4th Year</td> <td>1,135,440</td> </tr> <tr> <td>5th Year</td> <td>1,135,440</td> </tr> <tr> <td>6th Year</td> <td>1,135,440</td> </tr> <tr> <td>7th Year</td> <td>1,135,440</td> </tr> <tr> <td>8th Year</td> <td>1,135,440</td> </tr> <tr> <td>9th Year</td> <td>1,135,440</td> </tr> </tbody> </table>	1 st Year	1,135,440	2 nd Year	1,135,440	3 rd Year	1,135,440	4 th Year	1,135,440	5 th Year	1,135,440	6 th Year	1,135,440	7 th Year	1,135,440	8 th Year	1,135,440	9 th Year	1,135,440
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7 th Year	1,135,440																			
8 th Year	1,135,440																			
9 th Year	1,135,440																			

S. No.	Point/Issues	Reply	
		10 th Year	1,135,440

Deliberations by the Committee

10.8.16 The Committee noted the following:

1. The instant proposal is for Establishment of New DRI Kilns (2,31,000 TPA), Induction Furnace with matching LRF & CCM (Billets / Ingots) (99,000 TPA), Ferro Alloy Unit 2x9 MVA (FeSi- 14000 TPA / FeMn-50400 TPA / SiMn-28,800 TPA / FeCr-30000 TPA), Briquetting Plant - 200 kg/hr, WHRB based Power Plant – 20 MW (2x8 MW), AFBC based Power Plant - 12 MW, Briquetting plant - 200 Kg/Hr and Brick Manufacturing Unit of 30,000 Bricks/day.
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. The total project area is 15.91 ha which is under the possession of the company.
6. Kahipara Village is at a distance of 0.6 km in South of the project site.
7. The Unnamed canal passes across the site in small portion of site on western side where PP submitted that culvert will be constructed.
8. The Arpa river , Gokena Nallah, Kurung Right Bank Canal, Ghongha Nadi and two ponds exists within the study area of 10 km from the project site. The water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
9. Project proponent submitted that 5.34 Ha. (13.2 Acres) of Greenbelt will be developed within the project site with a plantation of total 14,500 nos. of saplings with in the plant

premises. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP that the green belt development shall be completed within a year.

10. Water required for the proposed project is 1304 KLD which will be sourced from Arpa River (which is at a distance of 1.9 Kms. from the project site).
11. Group company coal washery unit is adjacent to the site and facility of railway siding is available which will be utilized for the proposed project also.
12. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
13. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
14. The 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.
15. The committee also deliberated on the written submission submitted by the project proponent and found it satisfactory.
16. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
17. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

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

A. Specific Condition:

- i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- iii. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
- iv. Solid waste utilization
 - PP shall install a fly ash brick making plant.
 - PP shall recycle/reuse 100 % solid waste generated in the plant.
 - Used refractories shall be recycled as far as possible.
- v. Particulate matter emission from stacks shall be less than 30 mg/Nm³. Action plan submitted in the EIA/EMP Report shall be strictly implemented.
- vi. 85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil or LSHS as a fuel.
- vii. 1304 KLD water shall be sourced from Arpa River 1.9 km from site. GW abstraction is not permitted. PP shall explore the possibility to develop the nearby ponds for source of water requirement.
- viii. The company shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.
- ix. The canal 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 canal. Action Plan as committed shall be implemented within a timeframe. In addition to this contour map shall be prepared of required interval and water conservation plan shall be made to conserve the unnamed canal water.
- x. The Arpa river , Gokena Nallah, Kurung Right Bank Canal, Ghongha Nadi and two ponds exists within the study area of 10 km from the project site. The water bodies shall not be disturbed. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented. Project proponent shall develop green belt all along the boundary of the water bodies.

- xi. As committed to adopt 2 villages, namely Karhipara & Nirtu, Project Proponent shall prepare and implement a robust plan to develop them into model villages in next 10 years.
- xii. Air cooled condensers shall be used in the Power plant.
- xiii. Jigging and briquetting plants shall be provided in Fe Cr Circuit.
- xiv. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- xv. Three tier Green Belt shall be developed in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Additional 30-meter-wide green belt development within the project area towards the Kahipara village located at 600 m away from the project area shall be undertaken as per the submitted plan. As committed PP will plant 500 no. of saplings along the canal side and near the pond during upcoming monsoon. In compliance to minimise the carbon footprint, PP shall undertake plantation as per the submitted action. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- xvi. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
- xvii. The coal dust to be measured at coal handling areas, ball mills, furnace charging areas through personal and area monitoring and to be compared and it should be within 2 mg/m³, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.
- xviii. During operational phase, the project proponent shall monitor respirable dust (RPM) to quantify silica at Fe-Si and SiMn alloy plant and coal dust exposures at coal handling and ball mill areas and to compare with per permissible limits as per Indian Factories Act. The Report has to be submitted to IRO, MoEF&CC.
- xix. The proposed project shall be designed as "Zero Liquid Discharge" Plant. There shall be no discharge of effluent from the plant. Domestic waste water will be treated in STP and treated water shall be re-used for greenbelt development and plantation and dust suppression.
- xx. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have provision of garland drains and catch pits to trap run off material. Action plan submitted in the EIA/EMP Report shall be strictly implemented.
- xxi. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- xxii. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has

issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

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

B. General Conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; 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 recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

- v. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.
- vii. 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.

III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; 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 recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs 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.
- ii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

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

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms 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. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

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

- offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
 - iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
 - v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
 - vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
 - vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
 - viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
 - ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
 - x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
 - xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
 - xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
 - xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
 - xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
 - xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Agenda No. 10.9

- 10.9 **Proposed Standalone Grinding Unit with Cement Production Capacity of 3.0 Million TPA and D.G Set of 250 KVA along with Railway Siding at Salai Banwa, Villages: Panari and Kota, Tehsil: Obra, District: Sonbhadra, Uttar Pradesh by Ms ACC Limited- Consideration of Environmental Clearance.**

[Proposal No. IA/UP/IND/228969/2021; File No. J-11011/361/2021-IA.II(I)]

[Consultant: J.M. EnviroNet Pvt. Ltd.; Valid upto 07.02.2023]

- 10.9.1 M/s. ACC Limited has made an online application *vide* proposal no. IA/UP/IND/228969/2021 dated 11th July, 2022 along with copy of EIA/EMP Report, 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 S. No. 3(b) Cement plant under Category "B" of the schedule of the EIA Notification, 2006 and attracts general condition due to presence of Eco-Sensitive Zone of Kaimoor Wildlife at a distance of ~4.5 km from the proposed project site and therefore, the project will be treated as Category "A" project and appraised at central level.

- 10.9.2 Name of the EIA consultant: M/s J.M. EnviroNet Pvt. Ltd. [Sl. No. 41, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0186; valid upto 07.02.2023, Rev. 24, July 05, 2022].

Details submitted by Project proponent

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

Date of application	Consideration	Details	Date of accord	Validity of ToR
13/09/2021	45 th Meeting of REAC held on 28 th September, 2021	Terms of Reference	18/10/2021	17/10/2025

- 10.9.4 The project of M/s. ACC Limited located at Salai Banwa, Panari and Kota Villages, Obra Tehsil, Sonbhadra District, Uttar Pradesh State is for setting up of a new Standalone Grinding Unit with Cement Production Capacity of 3.0 Million TPA and D.G. Set of 250 KVA along with Railway Siding.

- 10.9.5 Environmental Site Settings:

S. No.	Particulars	Details	Remarks
1.	Total land	Total Project area is 32.6 ha; out of which, 3.43 ha is Government land and remaining 29.17 ha is Private non -irrigated & non-fertile land which will be changed to industrial after establishment of Grinding Unit.	Land use: Government and Private Land
2.	Land acquisition details	Total land has been acquired by the company.	-

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	as per MoEF&CC O.M. dated 7/10/2014																																																																																			
3.	Existence of habitation & involvement of R&R, if any.	<p>Project Site: No habitation exists within the project site and R & R is not applicable.</p> <p>Study Area:</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Panari</td> <td>~1.8</td> <td>West</td> </tr> <tr> <td>Kota</td> <td>~2.5</td> <td>SE</td> </tr> <tr> <td>Billi</td> <td>~2.5</td> <td>North</td> </tr> <tr> <td>Raksahwa</td> <td>~ 2.5</td> <td>NE</td> </tr> <tr> <td>Bagbaisa</td> <td>~3.0</td> <td>SW</td> </tr> <tr> <td>Telgurwa</td> <td>~3.0</td> <td>East</td> </tr> </tbody> </table> <p><i>There are approx. 25 villages in 10 km radius study area.</i></p>			Habitation	Distance (km)	Direction	Panari	~1.8	West	Kota	~2.5	SE	Billi	~2.5	North	Raksahwa	~ 2.5	NE	Bagbaisa	~3.0	SW	Telgurwa	~3.0	East																																																											
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5.	Elevation of the project site	213 m to 233 m above mean sea level.																																				
6.	Involvement of Forest land if any.	No Forest Land is involved in the project site.			-																																	
7.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area.	<p>Project site: There are 02 seasonal nalas crossing the project site.</p> <p>Study area: Following water bodies falls within 10 km radius:</p> <table border="1"> <thead> <tr> <th>Water body</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Rihand River</td> <td>~3.5</td> <td>SSW</td> </tr> <tr> <td>Son River</td> <td>~5.5</td> <td>NE</td> </tr> <tr> <td>Obra Dam</td> <td>~4.5</td> <td>West</td> </tr> <tr> <td>Naula Nala</td> <td>~1.0</td> <td>South</td> </tr> <tr> <td>Kajrahat Nala</td> <td>~4.5</td> <td>NE</td> </tr> <tr> <td>Chhotaghagh Nala</td> <td>~5.5</td> <td>South</td> </tr> <tr> <td>Datasi Nadi</td> <td>~8.0</td> <td>SSW</td> </tr> <tr> <td>Bandijhariya Nadi</td> <td>~8.5</td> <td>SSW</td> </tr> <tr> <td>Parewal Nala</td> <td>~8.5</td> <td>NNW</td> </tr> <tr> <td>Jatiya Nala</td> <td>~9.5</td> <td>ENE</td> </tr> </tbody> </table>			Water body	Distance (km)	Direction	Rihand River	~3.5	SSW	Son River	~5.5	NE	Obra Dam	~4.5	West	Naula Nala	~1.0	South	Kajrahat Nala	~4.5	NE	Chhotaghagh Nala	~5.5	South	Datasi Nadi	~8.0	SSW	Bandijhariya Nadi	~8.5	SSW	Parewal Nala	~8.5	NNW	Jatiya Nala	~9.5	ENE	-
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8.	Existence of ESZ / ESA/ national park / wildlife sanctuary / biosphere reserve / tiger reserve / elephant reserve etc. if any within the study area.	<p>Project Site: Nil</p> <p>Study Area</p> <ul style="list-style-type: none"> • Name of the ESA: <ul style="list-style-type: none"> ✓ Kaimoor Wildlife Sanctuary is located at a distance of ~5.5 km in NE direction from the project boundary. • Name of the ESZ: <ul style="list-style-type: none"> ✓ The extent of its ESZ is up to 1.0 km from the boundary of the Kaimoor Wildlife Sanctuary. Therefore, the proposed project 			Detailed mitigation measures to minimise the impact on Kaimoor Wildlife Sanctuary have been submitted on PARIVESH.																																	

S. No.	Particulars	Details	Remarks
		<p>site is located outside the Eco-sensitive Zone i.e., at a distance of approx. 4.5 km.</p> <ul style="list-style-type: none"> • Status of the Notification: Final Notification regarding declaration of Eco-sensitive Zone of Kaimoor Wildlife Sanctuary has been issued by MoEFCC <i>vide</i> notification S.O. 891(E) dated 20th March, 2017. • Authenticated map of ESZ projecting distance of ESZ from project site: Map showing 10 km radius of the project site along with distance of project site from Kaimoor Wildlife Sanctuary & its ESZ has been duly authenticated by DFO, Obra Forest Division, Obra-Sonebhadra dated 21st Dec., 2021. • Status of NBWL approval: Not Applicable • List of Reserved and protected forests: Tapu Reserve Forest (8.0 km in NNW direction) 	

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

S. No.	Plant Equipment / Facility	Proposed Unit	
		Configuration	Capacity
1.	Cement	Cement Mill - 350 TPH	3.0 Million TPA
2.	D.G. Set	-	250 KVA

10.9.7 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 (Million TPA)	Source	Distance from Site (Kms)	Mode of Transportation
1.	Clinker	1.7841	ACC Kymore or ACC Amehta or other sources from the Open market also, if required	358 km	By Rail / Road
2.	Gypsum	0.165	Rajasthan or Open market	850-1200 km	By Rail / Road
3.	Fly ash	1.05	Obra Thermal Power Plant / Others if necessitated	9.5 km	By Road
4.	Grinding	0.0009	Open Market	~1000 km	By Road

S. No.	Raw Material	Quantity Required (Million TPA)	Source	Distance from Site (Kms)	Mode of Transportation
	Aid*				
* Grinding aid consumption will be very negligible. Trial will be conducted and actual figure would be arrived at. However, it may vary from 0.01 - 0.05% (Avg 0.03%). Further, above ratios of raw materials may change as per quality of cement, required to be maintained as per BIS norms					

10.9.8 The water requirement for the proposed project is estimated as 319 KLD which will be sourced from Ground Water. NOC for sinking of well (330 KLD) has been obtained from Ground Water Department, Ministry of Jal Shakti Govt. of Uttar Pradesh dated 23rd March, 2022.

10.9.9 The Power Requirement for the proposed project is estimated as 18 MW which will be sourced from Poorvanchal Vidyut Vitaran Nigam Ltd. of UPPCL (GoUP) / Grid and D.G. Set for backup.

10.9.10 Baseline Environmental Studies:

Period	Post-Monsoon Season (October to December, 2020)
AAQ parameters at 09 locations	PM _{2.5} - 28.6 to 92.8 µg/m ³ PM ₁₀ - 61.7 to 153.6 µg/m ³ SO ₂ - 5.9 to 32.4 µg/m ³ NO _x - 14.3 to 47.8 µg/m ³ CO -BDL to 3.12 mg/m ³
Incremental GLC level	PM - 1.39 µg/m ³ (~ 500 m in East Direction)
Ground water quality at 08 locations	pH -7.56 to 7.87 Total Hardness - 216.97 to 389.87 mg/l Chlorides – 82.35 to 113.24 mg/l Fluoride - 0.97 to 1.36 mg/l Heavy Metals - Iron as Fe: 0.27 to 0.47 mg/l
Surface water quality at 03 locations	pH - 7.62 to 7.87 DO – 6.4 to 7.0 mg/l BOD – 5.6 to 9.2 mg/l COD – 17.8 to 24.8 mg/l
Noise levels at 08 locations	Noise Level During Day Time – 52.2 to 60.3 Leq dB (A) Noise Level During Night Time – 40.8 to 51.3 Leq dB (A)
Traffic assessment study findings	✓ Traffic study has been conducted at SH – 5A which is approximately 3.0 km in ENE direction from the proposed project site. ✓ Transportation of raw material & finished product will be done as per details given below: ▪ Clinker - 100% by rail; road transportation only in case of

	<p>emergency</p> <ul style="list-style-type: none"> ▪ Gypsum - 100 % by rail; road transportation only in case of emergency ▪ Fly ash - 100% by road, ▪ Grinding Aid - 100% by road ▪ Cement - 75% by road & 25% by rail. <p>✓ Existing PCU is 152 PCU/hr. on SH – 5A and existing level of service (LOS) is B</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>SH – 5A</td> <td>152</td> <td>625*</td> <td>0.24</td> <td>B</td> </tr> </tbody> </table> <p>* Capacity as per IRC- 64-1990 Guidelines.</p> <p>✓ PCU load after proposed project will be 152 (Existing) + 70.625 (Additional) PCU/hr. and level of service (LOS) will be B (Considering 100% Transportation by road).</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>SH – 5A</td> <td>152 + 70.625 = 222.625</td> <td>625</td> <td>0.35</td> <td>B</td> </tr> </tbody> </table> <p>✓ PCU load after proposed project (after installation of Railway Siding) will be 152 (Existing) + 38.625 (Additional) PCU/hr. and Level of Service (LOS) will be B.</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>SH – 5A</td> <td>152 + 38.625 = 190.625</td> <td>625</td> <td>0.30</td> <td>B</td> </tr> </tbody> </table> <p>* Capacity as per IRC- 64-1990 Guidelines.</p> <p>Conclusion: The level of service will be “B” i.e., Very Good after including additional traffic due to proposed project (after installation of railway siding).</p>	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	SH – 5A	152	625*	0.24	B	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	SH – 5A	152 + 70.625 = 222.625	625	0.35	B	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	SH – 5A	152 + 38.625 = 190.625	625	0.30	B
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Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS																											
SH – 5A	152 + 38.625 = 190.625	625	0.30	B																											
Flora and fauna	<p>Total 13 Schedule-I species viz. <i>Antilope cervicapra</i> (Black Buck), <i>Canis lupus</i> (Indian Wolf), <i>Crocodylus palustris</i> (Marsh Crocodile), <i>Falco chiquera</i> (Red Necked Merlin), <i>Gavialis gangeticus</i> (Ghariyal), <i>Gezella gazelle</i> (Chinkara), <i>Gyps bengalensis</i> (Vulture), <i>Melursus ursinus</i> (Sloth Bear), <i>Panthera pardus</i> (Common Leopard), <i>Panthera tigris</i> (Tiger), <i>Pavo cristatus</i> (Peafowl), <i>Python molurus</i> (Python) and <i>Varanus bengalensis</i> (Indian Monitor Lizard) were recorded in the study area as per (IWPA) Indian Wildlife Protection Act, 1972. Wildlife Conservation Plan for all the Schedule - I species has been prepared and submitted to Deputy Conservator of Forest, Obra Forest</p>																														

	Division, Obra, Sonbhadra on 12 th April, 2022. The same has been forwarded to Chief Wildlife Warden & PCCF, Lucknow for authentication.
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10.9.11 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S. No.	Type of Waste	Waste	Source	Quantity Generated	Mode of Treatment / Disposal
1.	SW	Dust	Grinding Unit	-	Dust collected from various APCEs will be totally recycled back into the process.
2.	SW	STP Sludge	STP	~ 200 kg/annum	Used as manure for greenbelt development / plantation
3.	HW	Used / Spent Oil (5.1) and Waste	Plant maintenance	~ 500 KL / Annum	Will be Sold to the CPCB / SPCB authorized recyclers
		Residue containing oil (5.2)		~ 200 Tonnes/ Annum	
		Empty Barrels		40 Nos./ annum	
4.	MSW	Bottles, paper, cans, textile, etc.	Plant Canteen	~1000 kg/annum	Will be sold to authorized recyclers
5.		Kitchen and canteen/ Green waste		~< 50 TPA	Will be disposed after segregating into bio-degradable and non-degradable waste.

10.9.12 Public Consultation:

Details of advertisement given	Public Hearing Notice published in Newspapers "Hindustan" and "The Pioneer" on 06 th Jan., 2022
Date of Public Consultation	11 th Feb, 2022 at 11:00 AM
Venue	Primary School at Village: Kota, Tehsil: Obra, District: Sonbhadra
Presiding Officer	Additional District Magistrate, District Sonbhadra (Uttar Pradesh)
Major issues raised	Employment, Environment, Socio Economic Development, Plantation, etc.

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

S. No.	Concerns raised during	Physical activity to be	Unit of Measurement			Tentative Budget (Rs.)
			1 st Year	2 nd Year	3 rd Year	

	the Public Hearing	done	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	in lacs)
1	Skill Development	Establishment of Skill Development Centre for providing short duration programs for unemployed youth in the field of domestic electrician, plumber, motor mechanic etc.	01 Centre (Village Kota)	50	01 Centre (Village Panari)	50	01 Centre (Obra)	50	150
2	Rural Infrastructure Development	Construction of Community Centers	01 No. (Village Kota)	10	02 No. (Village Panari & Salai Banawa)	20	02 No. (Obra & Village Dala)	20	50
		Repair / Restoring the Village Pathways	02 Nos (Village Kota & Panari)	10	02 Nos (Obra & Salai Banawa)	10	01 No. (Village Dala)	5	25
		Restoration of community play grounds	02 Nos (Village Kota & Panari)	6	01 No. (Village Dala)	3	02 Nos (Obra & Salai Banawa)	6	15
		Repair and maintenance of hand pumps with soak pits	01 No. (Village Kota)	3	02 Nos (Obra & Salai Banawa; 01 no. in each)	6	02 Nos (Village Panari & Dala; 01 no. in each village)	6	15
		Construction of overhead tanks along with pipe line supply	01 No. (Village Kota)	2.5	01 No. (Village Panari)	2.5	01 No. (Village Dala)	2.5	7.5
3	Ground Water Conservation	Restoration of Water ponds / percolation tanks by desilting, clearing the water paths, strengthening the banks etc.,	01 No. (Village Kota)	10	02 Nos (Obra & Salai Banawa)	20	01 No. (Village Dala)	10	40
		Renovation and maintenance of the existing check dams	02 Nos (Village Kota & Panari)	10	01 No. (Village Dala)	5	02 Nos (Obra & Salai Banawa)	10	25
		Rain water harvesting on Govt. School Building	01 No. (Village Panari)	2.5	02 Nos (Village Kota & Dala)	5	02 Nos (Obra & Salai Banawa)	5	12.5
4	Safe Drinking	Installation of	01 No.	15	01 No.	15	01 Nos	15	45

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1 st Year		2 nd Year		3 rd Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
	<i>Water</i>	RO/UV Plants to provide safe drinking water at community places	(Village Kota)		(Village Panari)		(Salai Banawa)		
5	<i>Education</i>	Installation of Smart classes in the Government schools to promote Digital education	02 Nos (Village Kota & Panari)	6	01 Nos (Salai Banawa)	6	-	-	12
		Development & modification of Playground and construction of Cultural Programme Stage	-	-	02 Nos (Village Kota & Panari)	5	01 Nos (Salai Banawa)	2.5	7.5
6	<i>Health</i>	Provide Medical Mobile Van (medicine & checkup) for Villages Kota, Panari, SalaiBanwa, Obra&Dala	1 no.	20	-	-	-	-	20
		Renovation of Primary Health Center / Sub Health Centre	01 Nos (Salai Banawa)	5	02 Nos (Village Kota & Panari)	10	01 No. (Village Dala)	5	20
		Provide medical investigating equipment and need based support Material set	-	-	02 Nos (Village Kota & Panari)	5	01 No. (Village Dala)	2.5	7.5
		Construction of community toilet blocks	01 No. (Village Kota)	2	01 No. (Village Dala)	2	02 Nos (Obra & Salai Banawa)	4	8
7	<i>Afforestation</i>	Community Block Plantation	1000 nos. saplings (500 saplings each at Kota and Panari)	2	1000 nos. saplings (500 saplings each at Obra & Salai banawa Villages)	2	500 saplings in Dala	1	5
Total									Rs. 465 Lacs

10.9.13 The capital cost of the project is Rs. 600.80 Crores and the capital cost for Environmental Protection Measures is proposed as Rs. 25 Crores. The annual recurring cost towards the

environmental protection measures is proposed as Rs 3.0 Crores/annum. The employment generation from the proposed project is about 2000 persons during construction phase and about 250 persons during operational phase. The details of cost for environmental protection measures are as follows:

S. No.	Description of Item	Cost (Rs. in Crores)	
		Capital Cost	Recurring Cost
i.	Air Pollution Control	14.0	2.0
ii.	Water Pollution Control and Water Management	4.0	0.2
iii.	Environment monitoring and Environment Cell	2.0	0.1
iv.	Occupational Health (Initial & Periodical Medical Check-ups)	2.0	0.1
v.	Greenbelt and Plantation	0.15	0.5
vi.	Others (Housekeeping and Vacuum Sweeping Machine, Environmental Awareness Program)	2.85	0.1
vii.	Sub Total	25.0	3.0
viii.	Addressal for public consultation concern	4.65	-
ix.	Details of adoption of villages, if any	(Village - Obra Panari, Ninga Panari, Bagbaisa Panari, Salai Banwa Kota, Tilgudwa Kota & Kota Khaus)	
	Grand Total	29.65	-

10.9.14 Greenbelt will be developed in 13.04 ha which is about 40 % of the total project area. A 5 - 10 m wide greenbelt around then 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 32,600 saplings will be planted and nurtured in 13.04 ha in 03 years. Additionally, two natural nallahs passing through the project site shall be landscaped on both embankments with greenbelt covering 10 m land on both sides of nallahs having an area of 0.676 ha. Thus, total of 13.716 ha area (40% of total project area) will be developed as greenbelt.

10.9.15 It is submitted that there is no violation under EIA notification 2006/no court cases/no show cause/no direction.

Deliberations by the Committee

10.9.16 The Committee noted the following:

1. The EAC noted that the water requirement for the proposed project is estimated as 319 KLD which will be sourced from Ground Water for which NOC for sinking of well (330 KLD) has been obtained. However, the Committee noted that condition was stipulated in

ToR which reads as *“There are two Rivers present near the project site, PP shall explore the feasibility of water withdrawal from any surface source. No ground water withdrawal shall be permitted for proposed the project except upto 50 KLD of water only for domestic purposes.”* Project proponent shall submit justification in compliance of the said ToR condition.

2. The EAC is of the view that water balance diagram is not appropriate, only 16% water is being recycled. There is no provision for water requirement for greenbelt. Therefore, PP shall submit revised water balance diagram. EAC advised the Consultant to advise the PP for more recycling of waste water and same to be included in the water balance and water auditing.
3. The EAC deliberated on the PP's proposal for D.G Set of 250 KVA and sought justification for need of the same, as the project is located in CPA area.
4. There are 02 seasonal nalas crossing the project site. PP shall submit a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures.
5. Rihand River, Son River, Obra Dam, Naula Nala, Kajrahat Nala, Chhotaghagh Nala, Datasi Nadi, Bandijhariya Nadi, Parewal Nala and Jatiya Nala exists within the study area of 10 km from the project site. The water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be prepared and submitted.
6. As the Unit is located in CPA, specific action Plan/mitigation measures as prescribed for the projects falling in CPA, shall be submitted as per OM 2019 and 5th July 2022.
7. The traffic study submitted is not justified by the project proponent. PP shall submit the revised traffic study analysis.
8. The EAC deliberated on the Wildlife conservation plan which has been forwarded to Chief Wildlife Warden & PCCF, Lucknow for authentication. The EAC opined that Wildlife Conservation Plan shall be improved for effective implementation of the conservation measures.
9. There are approx. 25 villages in 10 km radius study area. Project proponent has submitted that Village - Obra Panari, Ninga Panari, Bagbaisa Panari, Salai Banwa Kota, Tilgudwa Kota & Kota Khaus will be adopted. PP shall be developed a robust action plan to develop these villages into model villages in next 10 years.
10. Since the two nallahas are passing through the project area. The same need to be well protected in all sense. A contour map shall be prepared of required interval and water conservation plan shall be made to conserve the two nallaha. Further it shall be ensured that no waste shall be letting into the said nallaha from the industry.
11. Baseline values for Air Quality parameters specifically PM are recorded way high beyond the standards. Project proponent shall submit a mitigation plan to minimise the emission and impact on the ambient air quality.
12. Incremental GLC is reported for PM by the project proponent. PP shall submit the incremental GLC for SO₂, NO_x and CO shall also be submitted.

13. The EAC noted that total project area is 32.6 ha; out of which, 3.43 ha is Government land and remaining 29.17 ha is Private non -irrigated & non-fertile land which will be changed to industrial after establishment of Grinding Unit. Project Proponent shall submit the conversion status of the land.
14. The status of approvals obtained for Railway Siding shall be submitted by the project proponent.

Recommendations of the Committee

- 10.9.17** In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** and sought requisite information on the points referred at para no. 10.9.16 above. The proposal shall be considered after submission of requisite information in next EAC meeting.

Agenda No. 10.10

10.10 Expansion of Steel Plant installing new Iron Ore Beneficiation Plant [capacity = 12,50,000 Tons/ year], new Iron Ore Pellet Plant [capacity = 9,00,000 Tons/ year], Expansion in DRI Kilns [Sponge Iron Manufacturing from 60,000 Tons/ Year to 4,56,000 Tons/ Year], Induction Furnace with matching LRF and CCM [MS Billets / Ingots manufacturing from 48,000 Tons/ Year to 7,08,000 Tons/ Year], new Rolling Mill (for Rolled Products manufacturing 6,60,000 Tons/ Year], New Ferro Alloy manufacturing Unit 2 x 9 MVA [Fe-Mn 50,400 TPA/Si-Mn 28,800 TPA / Fe-Si 14,000 TPA / Fe-Cr 30,000 TPA/ Pig Iron 50,400 TPA], WHRB based Power Plant [from 4 MW to 34 MW], FBC based Power Plant [from 4 MW to 24 MW] and New Fly Ash brick manufacturing unit [66,000 nos. Bricks/day] by M/s N.R. Ispat And Power Pvt. Ltd., located at Gourmudi Village, Tamnar Tehsil, Raigarh District, Chhattisgarh - Consideration of Environmental Clearance.

[Proposal No. IA/CG/IND/3495/2009; File No. J-11011/225/2008.-IA.II(I)]

[Consultant: Pioneer Enviro Laboratories & Consultants Pvt. Ltd.; Valid upto 21.09.2022]

10.10.1 M/s. N.R. Ispat and Power Pvt. Ltd. (NRIPPL) has made an online application vide proposal no. IA/CG/IND/3495/2009, dated 13/07/2022 along with copy of EIA/EMP report and Form – 2 and certified compliance report seeking Environment Clearance (EC) under the provision of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous), 2(b) Mineral Beneficiation and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

10.10.2 Name of the EIA consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [Sl. No. 137, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/1922/SA0148; valid upto 21.09.2022, Rev. 24, July 05, 2022].

Details submitted by the project proponent

10.10.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
13 th August 2021	Standard TOR issued	Terms of Reference	15 th August 2021	14 th August 2025

10.10.4 The project of M/s. N.R. Ispat and Power Pvt. Ltd. located in Gourmudi Village, Tamnar Tehsil, Raigarh District, Chhattisgarh has proposed that in addition to the existing permitted Sponge iron of 60,000 TPA, Induction Furnaces 48,000 TPA, WHRB based Power Plant from 4 MW , CFBC based Power Plant 4 MW, it is proposed for expansion of Steel Plant – New Iron ore Beneficiation unit (12,50,000 TPA), New Pellet Plant (9,00,000 TPA), DRI Kiln (Sponge Iron from 60,000 TPA to 4,56,000 TPA), Induction Furnaces with matching LRF &

CCM (MS Billets / Ingots from 48,000 TPA to 7,08,000 TPA), New Rolling Mill with hot charging (Rolled Products 5,61,000 TPA), New Rolling Mill with Conventional with LDO (Rolled Products 99,000 TPA), New Ferro Alloy Unit with 2x 9 MVA Submerged Electric Furnaces (FeSi-14,000 TPA / FeMn- 50,400 TPA / SiMn – 28,800 TPA / FeCr-30,000 TPA / Pig Iron - 50,400 TPA), WHRB based Power Plant from 4 MW to 34 MW, CFBC based Power Plant 4 MW to 24 MW, New Fly Ash brick manufacturing unit (66,000 Bricks/day) & New Briquetting plant (200 Kg/hr).

10.10.5 Environmental site settings

S. No.	Particulars	Details	Remarks																			
i.	Total land	69.77 Ha. (172.41 acres) [Private Land & Industrial Land] Existing plant is located in 21.31 Ha. (52.66 Acres) of land. Adjoining Additional land of 48.46 Ha. (119.75 Acres)	--																			
ii.	Land acquisition details as per MoEF&CC, O.M. dated 7/10/2014.	<p>Land use of the Plant site</p> <table border="1"> <thead> <tr> <th>S.No</th> <th>Type of Land</th> <th>Area (in Ha.)</th> <th>Area (in Ac.)</th> <th>Status of Acquisition</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Land registered</td> <td>56.76</td> <td>140.26</td> <td rowspan="2">Total land diverted 18.082 Ha. (44.680 Ac.) and Un-diverted Land 38.650 Ha. (95.504 Ac.)</td> </tr> <tr> <td>2</td> <td>Agreement of sale executed</td> <td>13.01</td> <td>32.15</td> </tr> <tr> <td colspan="2">Total land</td> <td>69.77</td> <td>172.41</td> <td></td> </tr> </tbody> </table> <p>Proposed expansion will be taken up partially in the Existing plant and partially in the land adjacent to the existing plant.</p> <p><u>Acquisition Status:</u> Total land after the proposed expansion will be 69.77 Ha. (172.41 Acres). Existing plant is situated in 21.31 Ha. (52.65 Acres) & Additional 48.46 Ha. (119.75 Acres) of land is envisaged by management adjacent to the existing plant. The following are the status of Land Diversion</p> <p>Total land diverted : 18.11 Ha. (44.75 Ac.) Application submitted for Land Diversion : 38.65 Ha. (95.50</p>	S.No	Type of Land	Area (in Ha.)	Area (in Ac.)	Status of Acquisition	1	Land registered	56.76	140.26	Total land diverted 18.082 Ha. (44.680 Ac.) and Un-diverted Land 38.650 Ha. (95.504 Ac.)	2	Agreement of sale executed	13.01	32.15	Total land		69.77	172.41		
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S. No.	Particulars	Details	Remarks																																		
		Ac.) Yet to apply for Land Diversion (32.15 Ac.) (Agreement of sale executed & registration yet to be done)	: 13.01 Ha.																																		
iii.	Existence of habitation & involvement of R&R, if any.	Project site: No habitation exists in the plant site Study Area <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Gourmudi</td> <td>0.25 kms.</td> <td>N</td> </tr> </tbody> </table>	Habitation	Distance	Direction	Gourmudi	0.25 kms.	N	--																												
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v.	Elevation of the project site	287 M above mean sea level	--																																		
vi.	Involvement of Forest Land, if any	No involvement of Forest Land.	--																																		
vii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drianage, Canal etc.) exists within the project site as well as study area	Project Site: Nil Study area: <table border="1"> <thead> <tr> <th>Water body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Kelo River</td> <td>4.7 Kms.</td> <td>East</td> </tr> <tr> <td>Gerwani Nala (shivpuri nala)</td> <td>0.8 Kms.</td> <td>NE</td> </tr> <tr> <td>Korpali nala</td> <td>1.6 Kms.</td> <td>North</td> </tr> <tr> <td>Dewanmunda Nallah</td> <td>1.9 Kms</td> <td>North</td> </tr> <tr> <td>Barade Nala</td> <td>3.8 Kms.</td> <td>NWW</td> </tr> </tbody> </table>	Water body	Distance	Direction	Kelo River	4.7 Kms.	East	Gerwani Nala (shivpuri nala)	0.8 Kms.	NE	Korpali nala	1.6 Kms.	North	Dewanmunda Nallah	1.9 Kms	North	Barade Nala	3.8 Kms.	NWW	--																
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S. No.	Particulars	Details			Remarks
		Banjari Nala	1.2 Kms.	West	
viii.	Existence of ESZ / ESA / National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. if any within the study area	Movement of Elephants is observed within 15 Kms. radius of the plant, as per the secondary source. List of Reserved and protected forests: Urdana RF-1.1 Km. (South Direction), Taraimal RF-0.1 Km (North Direction), Barkachhar PF – 7.0 Kms. (East Direction), Khardungari PF – 6.3 Kms. (East Direction), Rabo RF - 2.2 Kms. (West Direction), Samaruma RF -7.5 Kms. (North Direction)			Conservation plan is prepared and the Budgetary Approval of Conservation Plan issued By PCCF, Raipur

10.10.6 The existing Project has obtained Environment Clearance from MoEF&CC, New Delhi vide F.No. J-11011/225/2008/ IA II (I) dated 8/6/2009 for Integrated Steel Plant (Sponge Iron, 60,000 TPA, Ingots / Billets, 60,000 TPA; Rolled products, 60,000 TPA, Power Plant (WHRB 4 MW & FBC 10 MW). Latest Consent to Operate is obtained from CECB vide letter No. 11379/TS/CECB/ 2021 dated 24.03.2021 which is valid up to 31/03/2024.

10.10.7 Implementation status of the existing EC:

S. No.	Unit (Product)	EC permitted capacities vide dated 8/6/2009	Implementation Status as on 22-07-2022	Production as per CTO
1.	DRI KILNS(Sponge iron)	60,000 TPA	60,000 TPA Implemented	60,000 TPA
2.	Induction Furnace (MS Billets)	60,000 TPA	48,000 TPA Implemented	48,000 TPA
3.	Rolled Products	60,000 TPA	Not implemented	---
4.	Power (WHRB)	4 MW	4 MW Implemented	4 MW
	Power (AFBC)	10 MW	4MW Implemented	4 MW

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

S. No.	Units (Product)	Existing facilities as per EC dated 08.06.2009 (In operation)	Proposed Expansion	After Proposed Expansion
1.	Iron ore Beneficiation (Beneficiated ore)	---	12,50,000 TPA (throughput)	12,50,000 TPA (throughput)

S. No.	Units (Product)		Existing facilities as per EC dated 08.06.2009 (In operation)	Proposed Expansion	After Proposed Expansion
				capacity)	capacity)
2.	Pellet Plant (Pellet)		---	9,00,000 TPA	9,00,000 TPA
3.	DRI Kilns (Sponge Iron)		60,000 TPA (2 x 100 TPD)	3,96,000 TPA (2 x 600 TPD)	4,56,000 TPA (2 x 100 TPD & 2 x 600 TPD)
4.	Induction Furnace with LRF & CCM (Hote Billets / MS Ingots / Billets)		48,000 TPA (2 x 8 T)	6,60,000 TPA (8 x 25 T) with 2 x 40 T LRF	7,08,000 TPA (2 x 8 T + 8 x 25 T with 2 x 40 T LRF)
5.	Rolling Mill (TMT bars / Structural Steel) (85 % Hot charging with Hot Billets and remaining 15% through RHF with LDO as fuel)		--	6,60,000 TPA (2 x 1000 TPD)	6,60,000 TPA (2 x 1000 TPD)
6.	Ferro Alloys Unit (FeSi / FeMn / SiMn / FeCr / Pig Iron)		---	2 x 9 MVA (FeSi-14,000 TPA / FeMn-50,400 TPA / SiMn – 28,800 TPA / FeCr-30,000 TPA / Pig Iron - 50,400 TPA)	2 x 9 MVA (FeSi-14,000 TPA / FeMn-50,400 TPA / SiMn – 28,800 TPA / FeCr-30,000 TPA / Pig Iron - 50,400 TPA)
7.	Brick Manufacturing unit		---	66,000 Brick/day	66,000 Brick/day
8.	Power Plant (58 MW)	WHRB based	4 MW	2 x 15 MW	34 MW
		AFBC based	4 MW	1 x 20 MW	24 MW
Note: Briquetting Plant of 200 Kg/hr will be provided for dust management in Ferro Alloy unit which is not proposed during ToR					

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

S.	Raw Material	Quantity (TPA)	Source	Distance	Mode of
----	--------------	----------------	--------	----------	---------

No.		Existing	Expansion	Total		from site (in Kms.)	Transport	
1.	Pellets (100 %)	----	5,74,200	5,74,200	Own generation	---	Through covered conveyers	
2.	Iron ore fines	96,000	12,50,000	13,46,000	Chhattisgarh/ Odisha	600	By rail & road (through covered trucks)	
3.	Indian Coal	78,000	7,15,275	7,93,275	SECL Chhattisgarh / MCL Odisha	500	By rail & road (through covered trucks)	
4.	Imported Coal	49,920	4,57,976	5,07,896	Indonesia / South Africa / Australia	600	Through sea route, rail route & by road	
5.	Dolomite	3,000	19,800	22,800	Chhattisgarh	100	By road (through covered trucks)	
6.	Sponge Iron	48,500	6,67,000	7,15,500	Own generation	---	Through covered conveyers	
7.	MS Scrap / Pig Iron	9,000	99,000	1,08,000	Chhattisgarh	100	By road (through covered trucks)	
8.	Ferro alloys	3,300	36,000	36,000	External Purchase / Own generation	~ 100 Kms. ---	By road (through covered trucks)	
9.	Hot Billets/Ingots	----	7,06,250	7,06,250	Own generation	---	---	
10.	LDO / LSHS	----	3,240 KL/annum	3,240 KL/annum	Near by IOCL Depot	100	By road (Through Tankers)	
11.	Iron Ore Concentrate	----	10,00,000	10,00,000	Own generation	---	By rail & road (through covered trucks)	
12.	Bentonite	----	7,200	7,200	Gujarat	~ 600 Kms.		
13.	Limestone	----	13,000	13,000	Chhattisgarh	~ 100 Kms.		
14.	Anthracite Coal	----	39,600	39,600	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.		
15.	LDO	----	12,000 KL/Annum	12,000 KL/Annum	IOCL Dept. Chhattisgarh	~ 100 Kms.	Through tankers	
16.	Dolochar + Indian Coal	Dolochar	18,000	71,280	71,280	In plant generation	---	through covered conveyers
		Indian Coal	12,600	1,64,835	1,64,835	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (in covered trucks)

S. No.	Raw Material		Quantity (TPA)			Source	Distance from site (in Kms.)	Mode of Transport
			Existing	Expansion	Total			
17.	Dolochar + Imported Coal	Dolochar	18,000	71,280	71,280	In plant generation	---	---
		Imported Coal	8064	92,864	92,864	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)
18.	Manganese Ore		----	48,600	48,600	MOIL / OMC	~ 500 Kms.	By Rail & Road (through covered trucks)
19.	LAM Coke		----	16,200	16,200	Andhra Pradesh	~ 500 Kms.	By road(covered trucks)
20.	FeMn. Slag		----	30,294	30,294	In house generation	---	----
21.	Dolomite		----	7,380	7,380	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (covered trucks)
22.	Electrode paste		----	630	630	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
23.	Quartz		----	7,740	7,740	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
24.	Bagfilter dust		----	200	200	Own generation	---	---

10.10.10 Water required in the existing plant is 260 KLD and same being sourced from Ground water river. Water permission for existing plant is obtained vide NOC no. CGWA/NOC/IND/ORIG/2018/4469. Water required for the proposed expansion project will be 2520 KLD and same will be sourced from Gerwani / Shivpuri Nallah. Air cooled condensers have been provided in existing power plant. In expansion also Air cooled condensers will be provided. Total water requirement after the proposed expansion will be 2780 KLD. Water drawl permission for expansion proposal from Water Resource Department, Chhattisgarh will be obtained after receipt of TOR letter for proposed expansion project.

10.10.11 Power requirement for the existing plant is 6.8 MW and same is being met from Captive Power plant. Power required for proposed expansion will be 99.2 MW. Total Power required for after the proposed expansion will be 106.0 MW. Power required will be met partly from 58 MW Captive Power Plant and remaining 48 MW from State grid.

10.10.12 Baseline Environmental Studies

Period	1st March 2021 to 31st May 2021
Ambient Air	<ul style="list-style-type: none"> PM2.5 = 21.9 to 48.8 µg/m³

Quality	<ul style="list-style-type: none"> • PM10 = 38.5 to 84.4 $\mu\text{g}/\text{m}^3$ • SO₂ = 6.6 to 21.4 $\mu\text{g}/\text{m}^3$ • NO₂ = 6.4 to 33.4 $\mu\text{g}/\text{m}^3$ • CO = 326 to 1388 $\mu\text{g}/\text{m}^3$ 																													
AAQ modeling (incremental GLC's) ISCST3 model is used	<ul style="list-style-type: none"> • PM₁₀ = 1.06 $\mu\text{g}/\text{m}^3$ (2300 m in SW) PM₁₀(vehicular) = 1.19 $\mu\text{g}/\text{m}^3$ • SO₂ = 5.72 $\mu\text{g}/\text{m}^3$ (3200 m in SW) • NO₂ = 6.22 $\mu\text{g}/\text{m}^3$ (2400 m in SW) NO₂(vehicular) = 3.53 $\mu\text{g}/\text{m}^3$ • CO (vehicular) = 2.47 $\mu\text{g}/\text{m}^3$ 																													
Ground water quality	<ul style="list-style-type: none"> • pH : 6.95 to 8.12 • TSS : 0.2 to 0.4 mg/l • TDS : 346 to 548 mg/l • Total hardness : 184 to 294 mg/l • Chlorides : 166 to 254 mg/l • Fluoride : 0.43 to 0.62 mg/l <p>Heavy metals (Iron -Fe): 0.012 to 0.022 mg/l</p>																													
Surface water quality	pH : 7.1 to 7.8, DO (in mg/l) : 4.6 to 6.0, BOD (in mg/l) : 2.2 to 3, COD (in mg/l) : 8.1 to 10.4, TDS (in mg/l) : 201 to 322, Chlorides (in mg/l) : 84 to 129; Sulphates (in mg/l) : 68 to 103																													
Noise level	The equivalent day-night noise levels in the study zone are ranging from 42.86 dBA to 64.72 dBA.																													
Traffic assessment study findings	<p>Traffic study has been conducted at State Highway # 1 which is approximately 4.6 Kms. from the plant site.</p> <p>Transportation of raw material, fuel, & finished product will be done 100 % by road.</p> <p>Existing PCU is 14225.5 PCU/day on SH#1 and existing level of service(LOS) is :</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V(Volume in PCU/day)</th> <th>C(Capacity in PCU/day)</th> <th>Proposed V/C Ration</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>SH#1</td> <td>14,225.5</td> <td>20,000</td> <td>0.71</td> <td>D</td> </tr> </tbody> </table> <p>PCU load after proposed project will be 15270 PCU/day +1097 PCU/day and level of service (LOS) will be</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V(Volume in PCU/day)</th> <th>C(Capacity in PCU/day)</th> <th>Proposed V/C Ration</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>SH#1</td> <td>16597.5</td> <td>20000</td> <td>0.83</td> <td>E</td> </tr> </tbody> </table> <p>Level of Service (LOS) of the Road as per IRC 37: 1980</p> <table border="1"> <thead> <tr> <th>V/C</th> <th>LOS</th> <th>Performance</th> </tr> </thead> <tbody> <tr> <td>0.0 – 0.2</td> <td>A</td> <td>Excellent</td> </tr> <tr> <td>0.2 – 0.4</td> <td>B</td> <td>Very Good</td> </tr> </tbody> </table>	Road	V(Volume in PCU/day)	C(Capacity in PCU/day)	Proposed V/C Ration	LOS	SH#1	14,225.5	20,000	0.71	D	Road	V(Volume in PCU/day)	C(Capacity in PCU/day)	Proposed V/C Ration	LOS	SH#1	16597.5	20000	0.83	E	V/C	LOS	Performance	0.0 – 0.2	A	Excellent	0.2 – 0.4	B	Very Good
Road	V(Volume in PCU/day)	C(Capacity in PCU/day)	Proposed V/C Ration	LOS																										
SH#1	14,225.5	20,000	0.71	D																										
Road	V(Volume in PCU/day)	C(Capacity in PCU/day)	Proposed V/C Ration	LOS																										
SH#1	16597.5	20000	0.83	E																										
V/C	LOS	Performance																												
0.0 – 0.2	A	Excellent																												
0.2 – 0.4	B	Very Good																												

	0.4 – 0.6	C	Good
	0.6 – 0.8	D	Fair/ Average
	0.8 – 1.0	E	Poor
	1.0 & Above	F	Very Poor
	<p>Capacity as per IRC 73: 1980 guide line for capacity of the roads Conclusion: The level of service will `E` after including additional traffic due to the proposed expansion project.</p> <p>Note: Ambikapur to Raigarh State Highway is being upgraded to Four lane road, hence the carrying capacity will further increased then there will not be any adverse impacts on the traffic due to the proposed expansion.</p>		
Flora and fauna	<p>In buffer zone following scheduled -I fauna are present Elephant (<i>Elephas maximus</i>) (as per the secondary source Elephant movement was observed in the study area) Conservation Plan has been prepared & it is approved by PCCF, Raipur vide letter No./Va.Pra./Prabandh-487/1942 dated 22.05.2020 for an allotted budget of Rs.40 Lakhs to be spent over a period of 5 years.</p>		

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

S. No	Waste	Quantity (TPA)			Method of disposal
		Existing	Proposed	After expansion	
1.	Tailing from Beneficiation plant	--	2,50,000	2,50,000	Tailings from thickener will be taken to filter press and the dewatered tailings will be given to Ceramic industries/cement plants.
2.	Pellet Plant (ESP & Bagfilter dust from dedusting system)	--	27,000	27,000	Will be utilised in proposed Brick manufacturing units.
3.	Ash from DRI	10,800	55,440	66,240	Is being given to near by brick manufacturing units and now it will be utilized in the proposed brick manufacturing unit.
4.	Dolochar	18,000	71,280	89,280	Is being utilized in the existing FBC boiler based power plant. The same practice will be continued after expansion also.
5.	Kiln Accretion Slag	540	3,564	4,104	Is being given to road contractors for road construction & given to brick manufacturer and after proposed expansion will be utilized in the proposed

S. No	Waste	Quantity (TPA)			Method of disposal
		Existing	Proposed	After expansion	
					brick manufacturing unit.
6.	Wet Scraper Sludge	2,760	18,216	20,976	Is being given to road contractors for road construction & given to brick manufacturer and after proposed expansion will be utilized in the proposed brick manufacturing unit.
7.	SMS Slag	4,800	66,000	70,800	Slag from SMS will be crushed and iron will be recovered & then remaining non - magnetic material being inert by nature will be given to road contractors for road laying and will also be utilized in proposed brick manufacturing unit.
8.	Mill Scales	---	1980	1980	Will be used in proposed Ferro Alloys plant captively
9.	End cuttings	---	19,800	19,800	Will be reused in SMS.
10.	Ash from Power Plant	12,028	86,872	98,300	Is being given to nearby brick manufacturing units and now it will be utilized in the proposed brick manufacturing unit.
11.	Slag from FeMn	---	30,294	30,294	Will be reused in manufacture of SiMn as it contains high SiO ₂ and Silicon.
12.	Slag from FeSi	---	1,010	1,010	Will be given to Cast iron foundries
13.	Slag from SiMn	---	30,888	30,888	will be used for Road construction / will be given to slag cement manufacturing
14.	Slag from FeCr	---	27,918	27,918	Will be processed in Zigging plant for Chrome recovery. After Chrome recovery, the left-over slag will be analyzed for Chrome content through TCLP test, if the Chrome content in the slag is within the permissible limits, then it will be utilized for Road laying /brick manufacturing. If Chrome content exceeds the permissible limits, it will be sent to nearest TSDF.
15.	Slag from Pig Iron	---	34,452	34,452	Will be given to slag based cement manufacturing units

Hazardous waste generation, storage & disposal:

1.Waste oil: 1.0 KL / Annum

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

2.Used Batteries

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

10.10.14 Public Consultation

Date of advertisement	03 rd December 2021
Name of newspapers	Local newspaper (Hindi) “Sampoorn Chhattisgarh” National newspaper (English) “Hindusthan”
Date on which Public Hearing conducted	5 th January 2022
Venue	Govt. Open ground Near Banjari Matah Temple, Village - Tariamal, Tehsil-Tamnar, District-Raigarh (Chhattisgarh).
Attended by	Additional District Magistrate
Issues are	<ul style="list-style-type: none"> • Periodical medical check ups • Effect of health of people in the area • Lot of Air pollution, noise pollution, Ground water pollution • Ground water table depletion • Movement of Elephants in the area • Road accidents increasing due to the industries • Effect on children, youth, elderly people, Birds, animals due to industries • Effect on Banjara Mata temple and Sighanpur caves • CER fund to be spent by every industry for improvement in health condition, education upliftment • Industrial training to be provided • Employment to local people

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

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
A). Based on Need Based & SIA Study						
1	Community & Infrastructure Development Programmes					
	i) Construction of public toilets	Physical Nos. & village	2 nos. in Gourmudi (v) & 2 nos. in Saraipali (v)	2nos. in Bhuikuri(v) & 2 Nos. in Barpali (v)	2 no. in Jamadbari (v) & 2 Nos. in Delari (v)	30
		Budget in Lakhs	10	10	10	
	ii) Providing LED Street lighting with solar panels	Physical Nos. & village	15 nos. in Gourmudi (v) & 15 Nos. in Saraipali (v)	15nos. in Bhuikuri (v) & 15 Nos. in Jamadbari (v)	20 nos. in Barpali (v) & 20 nos. Delari (v)	20
		Budget	6	6	8	

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
		in Lakhs				
	iii) Mineral water plants	Physical Nos. & village	4 nos. in Saraipali (v) & 2 nos. in Gourmudi (v)	2 nos. in Bhuikuri (v) & 2 Nos. in Jamadbari (v)	2 no. in Delari (v) & 4 Nos. in Barpali (v)	54
		Budget in Lakhs	18	12	24	
					Total	104
2	Education					
	i) Providing Sport kits for schools	Physical Nos. & village	8 nos. in Saraipali (v)	8 Nos. in Jamadbari (v)	10 nos. in Delari (v) & 10 nos. in Harradih (v)	5
		Budget in Lakhs	1.5	1.5	2	
	ii) Construction of class rooms in schools of size 8m x 6m	Physical Nos. & village	2 rooms in Saraipali (v)	2 nos. in Delari (V)	2 nos. in Jamadbari (v)	30
		Budget Rs in Lakhs	10	10	10	
	iii) renovation of Anganwadi Centre in consultation with Govt. of CG	Physical Nos. & village	Gourmudi (v) -1 No.	Saraipali (v) – 1 No.	Delari (v) -2 Nos.	40
		Budget Rs in Lakhs	10	10	20	
	iv) Providing furniture, computers, library, sports equipment etc. for nearby local schools of 3 villages @Rs. 5.0 Lakhs per school	Physical Nos. & village	Saraipali (v) – 1 no	Jamadbari (v)- 1No	Delari (v) – 1 No &	15
		Budget Rs. in Lakhs	5	5	5	
					Total	90
3	RWH pits in the surrounding villages & De-siltation of ponds	Physical Nos. & village	2 nos. in Govt School, Saraipali Village & 2 nos. in Saraipali Panchayat Office	Increase of 1.0 m depth in storage due to De-siltation of pond in Gourmudi (V) (22° 1'13.78"N, 83°19'55.97"E)	Increase of 1.0 m depth in storage due to De-siltation of pond in Chiraipani (v) (21°58'38.77"N, 83°22'7.74"E)	20
		Budget in Lakhs	2	10	8	
4	Mini Community Hall	Physical Nos. & village	---	---	Gourmudi (v)	40

S.NO.	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)	
		1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)		
	Budget in Lakhs	---	---	40		
				Sub Total (A)	254	
B)	Based on Public Consultation / Hearing					
1	Impart training to the local villagers for skill development. a)DISHA Centre” along with necessary infrastructure for various vocational training program for employment generation in association with National Skill Development Mission (Automobile Repair, Welding, Electrical, Computer Hardware, Soft skills like computer programs etc.)	Physical Nos. & village	One DISHA centre			90
		Budget in Lakhs	30	30	30	
2	Relaying of Gourmudi Village Cross Road to state High Way in association with adjacent industries	Physical Nos. & village	---	2000 m stretch (partly distributed with adjoining industries)	---	68
		Budget in Lakhs	---	68	---	
3	Providing speed Breakers, boards for speed reduction, sign boards about speed breakers	Physical Nos. & village	Gourmudi (v)	Saraipali (v)	Shivpuri (v)	6
		Budget in Lakhs	2	2	2	
4	Plantation to be developed in both sides of Barpali to Gerwani	Physical Nos. & village	---	2000 nos. of saplings in Barpali to Gerwani villages	---	2
		Budget in Lakhs	---	2	---	
5	Primary Health Centre with Ambulance	Physical Nos. & village	Saraipali (v)	---	---	40
		Budget in Lakhs	40	---	---	
				Sub Total (A)	206	
		TOTAL	134.5	166.5	159	

S.NO.	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
		1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
GRAND TOTAL (A+B)					460

10.10.15 The capital cost of the expansion project is Rs.800 Crores and the capital cost for environmental protection measures is proposed as Rs.71.40 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs.12.7 Crores. The employment generation from the proposed expansion project is 300 direct & 500 Indirect. The details of cost for environmental protection measures is as follows.

S.No	Particulars	Capital Cost (Rs.in Crores)				Recurring Cost / Annum (Rs.in Crores)
		2023-25	2025-2027	2027-28	TOTAL	
1	Air Emission Management					
	• Electro Static Precipitators (ESP)	12	12	0	24	6.0
	• Fume Extraction system with bag filters	0	25	2.5	27.5	4.125
	• Conveyers & other APCS	0.1	0.05	0.05	0.2	0.02
	• Stacks	3.0	2.0	0.5	5.50	0.33
	• Water Sprinklers	0.1	0.1	--	0.2	0.01
	• CEMS	0.2	0.3	0.05	0.55	0.011
	• CAAQMS	0.8	0.8	--	1.6	0.4
	• Environment Monitoring	---	---	---	---	0.2
2	Wastewater Management					
	• for upgradation of ETP	0.2	0.3	---	0.5	0.1
	• for New ETP	0.0	---	---	0.0	0.0
	• for STP	0.2	---	---	0.2	0.04
	• for Garland drains	0.1	0.1	---	0.2	0.02
3	Solid waste Management					
	• Fly Ash Handling & disposal	0.2	0.3	---	0.5	0.25
	• Slag Handling & Disposal	---	0.1	0.1	0.2	0.06
	• Hazardous waste storage & disposal	0.05	---	0.05	0.1	0.05
	• Municipal solid waste storage & disposal	0.02	0.03	---	0.05	0.025
4	Greenbelt development, Land scaping	0.5	---	---	0.5	0.28
5	Noise Management	0.2	---	---	0.2	0.1
6	RWH pits in Plant	0.2	---	---	0.2	0.02
7	Fire Safety Systems	2.0	1.0	0.5	3.5	0.35

S.No	Particulars	Capital Cost (Rs.in Crores)				Recurring Cost / Annum (Rs.in Crores)
		2023-25	2025-2027	2027-28	TOTAL	
8	Occupational Health & Safety					
	• Dispensary with Ambulance	0.3	---	---	0.3	0.075
	• Personal Protective Equipment's (PPEs)	0.2	---	---	0.2	0.2
9	Storm water management	0.6	---	---	0.6	0.03
	TOTAL (A)	20.97	42.08	3.75	66.80	12.70
10	Social & Infrastructural Development (SID)	3.01	1.59	---	4.6	---
	GRAND TOTAL	23.98	43.67	3.75	71.40	12.70

10.10.16 24.3 Ha. (60.05 Acres) of Greenbelt (inclusive of existing & compensatory tree plantation) will be developed within the plant premises which is 34.8% of the total area. 12,500 no. of plants exists till date (survival rate 85%). Another 45,050 nos. of saplings will be planted as part of expansion. There are around 500 nos. of trees exists in the additional land proposed now. It is proposed to remove these trees to establish proposed expansion units. It is proposed to Translocate / Cutting these trees to establish proposed expansion units. As a compensatory measure, it is proposed to plant additional 2500 nos. of trees in the entire premises. Hence a total 47,550 nos. of saplings will be planted as part of expansion project. Width of greenbelt ranges from 10 m to 120 m. Local DFO will be consulted in developing the green belt. The tree species to be selected for the plantation are pollutant tolerant, fast growing, wind firm, deep rooted. A three-tier plantation is proposed comprising of an outer most belt of taller trees which will act as barrier, middle core acting as air cleaner and the innermost core which may be termed as absorptive layer consisting of trees which are known to be particularly tolerant to pollutants. 2500 plants will be planted per Hectare as per CPCB norms.

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

Certified Compliance report from Regional office

10.10.18 The Status of compliance of earlier EC was obtained from IRO, MOEF&CC, Raipur Vide No. IRO-RPR/ENV/IND/02/2021/643 dated 22.03.2022. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Raipur on 13.05.2022. MoEF&CC (IRO), Raipur evaluated the same and has issued Report vide letter No. IRO-RPR/ENV/IND/02/2021/756 dated 07.06.2022. The details of the observations made by IRO in the report dated 07.06.2022 along with its re-assessment/present status as furnished by the PP is given as below:

S. No.	Non-compliance Reported by IRO, MoEFCC dated 22.03.2022	Corrective action taken by PP	Verification of IRO , MoEFCC dated 07.06.2022
1.	<p>Specific Condition No. (XII): Project Authorities are directed to install the AAQ as per stipulation condition and ATR in this regard may be submitted to this office</p>	<p>The company has installed CAAQMS at the plant site.</p> <p>Link: https://cloud.enggenv.com/index.php</p>	<p>PP has submitted link, id and password of the continuous ambient air quality monitoring system installed in the plant premises to this office.</p>
2.	<p>Specific Condition No. (V): Project authorities are directed to upload the data on ambient air quality stack emissions and fugitive emissions on the company website, install a suitable display board at the main entrance gate of the plant for displaying the data on SPM, SO₂ and NO_x for the information of general public and ATR in this regard may be submitted to this office.</p>	<p>The process of creating the website is in process, as soon as the website is created, PP will upload the data as mentioned.</p>	<p>It has been observed that process of creating the website is in process, PP assured to comply the stipulated condition</p>
3.	<p>Specific Condition No. (VIII): Project authorities are directed to ensure to construct all the asphalted rods inside the plant.</p>	<p>Company laid the asphalted road inside the plant.</p>	<p>PP has submitted the photographs of asphalted road inside the plant</p>
4.	<p>Specific Condition No. (XVIII): Project authorities are directed to submit a time bound action plan to reduce solid waste its proper utilization and disposal to this office.</p>	<p>Utilization and disposal of Solid Wastes a. Dolochar: Dolochar is being used as fuel [after blending with coal] in own FBC based power plant. converting the same to ash. Its volume IS being reduced by 50 % in the form of ash. b. Kiln accretion slag : this is inert in nature and the same is being given to nearby villagers for filling low lying</p>	<p>PP has submitted the time bound action plan to reduce solid waste and its proper utilization and disposal to this office.</p>

S. No.	Non-compliance Reported by IRO, MoEFCC dated 22.03.2022	Corrective action taken by PP	Verification of IRO , MoEFCC dated 07.06.2022
		<p>areas in consultation with local Gram panchayats and also given to agencies engaged in road construction.</p> <p>c. APCS dust: APCS dust is being given to nearby brick manufacturers.</p> <p>d. Ash from Power Plant: is being given to nearby brick manufacturing units. We have also installed a fly ash brick plant within our premises. We are also using it in our sister concern brick plant namely M/s. Mayank Agrawal and we are also giving fly ash to nearby brick plant namely Shree Durga Fly Ash.</p> <p>e. Slag from Induction furnaces : Slag from Induction furnace unit is being given to nearby slag Crushing units</p>	
5.	<p>Specific Condition No. (XX): Project authorities are directed to submit the existing plant layout plan in which it shows green belt was developed in 20 acre (42%) to this office</p>	Existing plant layout showing green belt developed in the existing plant has been submitted.	PP has submitted existing plant layout of August 2021 specifying the green belt
6.	<p>Specific Condition No. (XXI): Project authorities are directed to submit the factual status on the implementation of the conservation plan for the conservation of wild fauna in consultation with the State Forest Department to this Office.</p>	<p>While the process of grant of environmental clearance for operational units, the wild life conservation plan has not been prepared. However, we have prepared the Conservation plan as part of Expansion project with budget allocation of Rs. 40 Lakhs which will be</p>	PP has submitted letter of correspondence of PCCF to this office. PP has also submitted summarized budget provision for wildlife conservation and management plan to this office.

S. No.	Non-compliance Reported by IRO, MoEFCC dated 22.03.2022	Corrective action taken by PP	Verification of IRO , MoEFCC dated 07.06.2022
		implemented by 2026. Letter from PCCF, Forest Department, Govt. of C.G. Raipur has been submitted.	
7.	Specific Condition No. (IX): Project authorities are directed to submit the comprehensive details of all the environmental protection measures and safeguards recommended in the EIA / EMP report to this office.	The details of the environmental protection measures and safeguards recommended in the EIA/EMP report are submitted.	PP has submitted comprehensive details of the environmental protection measures and safeguard recommended in the EIA/EMP report. PP has also specified the capital cost of Rs. 828 lakh and recurring cost per annum of Rs. 159 lakh.
8.	Specific Condition No. (X): Project authorities are directed to submit the details of the socio-economic development activities undertaken in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc. to this office.	PP has submitted the details of the socio-economic development activities undertaken in the surrounding villages by the company.	PP has submitted comprehensive details of the socio-economic development activities undertaken in the surrounding villages to this office

Written submission by PP:

10.10.19 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 02.08.2022 through email dated 02.08.2022 submitted the revised information w.r.t. to the following:

Point # 1	Revised Water Balance
Reply # 1	Revised Water Balance has been submitted and also updated at para 10.10.10 above.
Point # 2	Submit the Analysis report of Kiln Accretion slag with in One Month
Reply # 2	PP assure that TCLP test will be carried out for Kiln Accretion slag and the analysis report will be submitted to the Honorable Ministry with in one (1) month.
Point # 3	Adequate Greenbelt to be provided as part of Expansion
Reply # 3	<ul style="list-style-type: none"> • 24.3 Ha. (60.05 Acres) of Greenbelt (inclusive of existing & compensatory tree plantation) will be developed within the plant premises which is 34.8%

	<p>of the total area.</p> <ul style="list-style-type: none"> • 12,500 no. of plants are exists till date (survival rate 85%). • Another 45,050 nos. of saplings will be planted as part of expansion. • There are around 500 nos. of trees exists in the additional land proposed now. It is proposed to Translocate / Cutting these trees to establish proposed expansion units. As a compensatory measure, it is proposed to plant additional 2000 nos. of trees in the entire premises. • Hence a total 47,550 nos. of saplings will be planted as part of expansion project. • Width of greenbelt ranges from 10 m to 120 m. • Local DFO will be consulted in developing the green belt. • The tree species to be selected for the plantation are pollutant tolerant, fast growing, wind firm, deep rooted. A three-tier plantation is proposed comprising of an outer most belt of taller trees which will act as barrier, middle core acting as air cleaner and the innermost core which may be termed as absorptive layer consisting of trees which are known to be particularly tolerant to pollutants. • Greenbelt will be developed as per CPCB guidelines. • 2500 plants will be planted per Hectare as per CPCB norms. <p>The information is also incorporated at 10.10.16 above.</p>						
Point # 4	Submit the Status of Land Diversion with supporting documents						
Reply # 4	<p>Total land after the proposed expansion will be 69.77 Ha. (172.41 Acres). Existing plant is situated in 21.31 Ha. (52.65 Acres) & Additional 48.46 Ha. (119.75 Acres) of land is envisaged by management adjacent to the existing plant. The following are the status of Land Diversion</p> <table> <tr> <td>Total land diverted</td> <td>: 18.11 Ha. (44.75 Ac.)</td> </tr> <tr> <td>Application submitted for Land Diversion</td> <td>: 38.65 Ha. (95.50 Ac.)</td> </tr> <tr> <td>Yet to apply for Land Diversion</td> <td>: 13.01 Ha. (32.15 Ac.)</td> </tr> </table> <p>(Agreement of sale executed & registration yet to be done)</p> <p>The following documents are submitted: Applied or Land Diversion or 38.650 Ha. (95.504 Ac) Agreement of sale executed – 13.01 Ha. (32.15 Ac.)</p> <p>The information is also incorporated at 10.10.4 above.</p>	Total land diverted	: 18.11 Ha. (44.75 Ac.)	Application submitted for Land Diversion	: 38.65 Ha. (95.50 Ac.)	Yet to apply for Land Diversion	: 13.01 Ha. (32.15 Ac.)
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Application submitted for Land Diversion	: 38.65 Ha. (95.50 Ac.)						
Yet to apply for Land Diversion	: 13.01 Ha. (32.15 Ac.)						
Point # 5	Permission from concern Authority for removal of Plantation.						
Reply # 5	<p>It is proposed to Translocate / Cutting of 500 nos. of Trees as part of Expansion Project. Presently PP has applied for Permission for cutting of 150 nos. of Trees. PP will make every effort to minimize the cutting of Trees and maximize Translocation of Plants. A copy of the Acknowledgment submitted to Sub-Divisional Magistrate (SDM), Raigarh is submitted.</p>						
Point # 6	Adequacy of Existing State Highway after the Proposed Expansion						

Reply # 6	<p>Traffic study has been conducted at Ambikapur to Raigarh (SH # 1) which is 4.6 Kms. from the plant site.</p> <p>Existing PCU is 14225.5 PCU/day on SH # 1 and existing level of service(LOS) is :</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/day)</th> <th>C (Capacity in PCU/day)</th> <th>Proposed V/C Ration</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>SH#1</td> <td>14,225.5</td> <td>20,000</td> <td>0.71</td> <td>D</td> </tr> </tbody> </table> <p>PCU load after proposed project will be 14,225.5 PCU/day + 2372 PCU/day and level of service (LOS) will be</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/day)</th> <th>C (Capacity in PCU/day)</th> <th>Proposed V/C Ration</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>SH#1</td> <td>16597.5</td> <td>20000</td> <td>0.83</td> <td>E</td> </tr> </tbody> </table> <p>Level of Service (LOS) of the Road as per IRC</p> <table border="1"> <thead> <tr> <th>V/C</th> <th>LOS</th> <th>Performance</th> </tr> </thead> <tbody> <tr> <td>0.0 – 0.2</td> <td>A</td> <td>Excellent</td> </tr> <tr> <td>0.2 – 0.4</td> <td>B</td> <td>Very Good</td> </tr> <tr> <td>0.4 – 0.6</td> <td>C</td> <td>Good</td> </tr> <tr> <td>0.6 – 0.8</td> <td>D</td> <td>Fair/ Average</td> </tr> <tr> <td>0.8 – 1.0</td> <td>E</td> <td>Poor</td> </tr> <tr> <td>1.0 &Above</td> <td>F</td> <td>Very Poor</td> </tr> </tbody> </table> <p>Capacity as per IRC guide line for capacity of the roads</p> <p>Conclusion: The level of service will “E” (Poor) after including additional traffic due to the proposed expansion project.</p> <p>Note: Ambikapur to Raigarh State Highway (SH #1) is being upgraded to Four lane road, hence carrying capacity of the Highway will further be increased to 30,000 PCU/day. Accordingly, the LOS will be $16597.5 / 30,000 = 0.55$. Hence the level of service will become “C” (Good). There will not be any adverse impact on the traffic due to the proposed expansion.</p>	Road	V (Volume in PCU/day)	C (Capacity in PCU/day)	Proposed V/C Ration	LOS	SH#1	14,225.5	20,000	0.71	D	Road	V (Volume in PCU/day)	C (Capacity in PCU/day)	Proposed V/C Ration	LOS	SH#1	16597.5	20000	0.83	E	V/C	LOS	Performance	0.0 – 0.2	A	Excellent	0.2 – 0.4	B	Very Good	0.4 – 0.6	C	Good	0.6 – 0.8	D	Fair/ Average	0.8 – 1.0	E	Poor	1.0 &Above	F	Very Poor
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Reply # 7	PP committed to adopt 8 nos. of villages i.e. Gourmudi (v), Saraipali (V), Bhuikuri (v), Barpali (v), kuri (v), Delari (V), Harradih (v), Shivpuri (V).																																									

Deliberation by the Committee

10.10.20 The Committee noted the following:

- i. Instant proposal is for expansion of Steel Plant installing new Iron Ore Beneficiation Plant [capacity = 12,50,000 Tons/ year], new Iron Ore Pellet Plant [capacity = 9,00,000 Tons/ year], Expansion in DRI Kilns [Sponge Iron Manufacturing from 60,000 Tons/ Year to 4,56,000 Tons/ Year], Induction Furnace with matching LRF and CCM [MS Billets /

Ingots manufacturing from 48,000 Tons/ Year to 7,08,000 Tons/ Year], new Rolling Mill (for Rolled Products manufacturing 6,60,000 Tons/ Year], New Ferro Alloy manufacturing Unit 2 x 9 MVA [Fe-Mn 50,400 TPA/Si-Mn 28,800 TPA / Fe-Si 14,000 TPA / Fe-Cr 30,000 TPA/ Pig Iron 50,400 TPA], WHRB based Power Plant [from 4 MW to 34 MW], FBC based Power Plant [from 4 MW to 24 MW] and New Fly Ash brick manufacturing unit [66,000 nos. Bricks/day] & New Briquetting plant (200 Kg/hr).

- ii. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
- iii. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
- iv. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
- v. Total land after the proposed expansion will be 69.77 Ha. (172.40 Acres). Out of total land earmarked for the project, 56.76 Ha. (140.25 acres) is under possession of management and agreement have been entered for remaining land 13.01 Ha. (32.15 Acres) of land.
- vi. Gourmudi Village is at a distance of 0.25 km in North of the project site.
- vii. PP has committed to adopt 8 nos. of villages namely Gourmudi (v), Saraipali (V), Bhuikuri (v), Barpali (v), kuri (v), Delari (V), Harradiah (v), Shivpuri (V).
- viii. Kelo River, Gerwani Nala (shivpuri nala), Korpali nala, Dewanmunda Nallah, Barade Nala and Banjari Nala exists within the study area of 10 km from the project site. The water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
- ix. Total water requirement after the proposed expansion will be 3,060 KLD. Existing water requirement of 260 KLD is being sourced from Ground water river. Water required for the proposed expansion project will be 2800 KLD and will be sourced from Gerwani / Shivpuri Nallah.
- x. 24.3 Ha. (60.05 Acres) of Greenbelt (inclusive of existing & compensatory tree plantation) will be developed within the plant premises which is 34.8% of the total area. Total of 47,550 nos. of saplings will be planted as part of expansion project. There are around 500 nos. of trees exists in the additional land proposed now. It is proposed to Translocate / Cutting of 500 nos. of Trees as part of Expansion Project. Presently PP has applied for Permission for cutting of 150 nos. of Trees. PP commit to make every effort to minimize the cutting of Trees and maximize Translocation of Plants.

- xi. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the green belt development shall be completed in a year.
- xii. There is 1 no. of Schedule - I species reported in study area, namely 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, Raipur vide letter No./Va.Pra./Prabandh-487/1942 dated 22.05.2020 for an allotted budget of Rs.40 Lakhs to be spent over a period of 5 years.
- xiii. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
- xiv. 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.
- xv. The Committee deliberated upon the certified compliance report of IRO MoEFCC as well as action taken report submitted by PP with respect to the observations reported by IRO, MoEFCC in June 2022 and found it satisfactory.
- xvi. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
- xvii. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

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

A. Specific Conditions:

- i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations

- made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
 - iii. The activities and the action plan proposed by the project proponent to address the issues raised during public hearing and socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.
 - iv. As committed, PP shall adopt 8 nos. of villages namely Gourmudi (v), Saraipali (V), Bhuikuri (v), Barpali (v), kuri (v), Delari (V), Harradih (v), Shivpuri (V) and develop a robust action plan to develop these villages into model villages in next 10 years.
 - v. Kelo River, Gerwani Nala (shivpuri nala), Korpali nala, Dewanmunda Nallah, Barade Nala and Banjari Nala exists within the study area of 10 km from the project site. The water bodies shall not be disturbed. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.
 - vi. There are around 500 nos. of trees exists in the additional land proposed now. PP has proposed to Translocate / Cutting of 500 nos. of Trees as part of Expansion Project. PP shall explore the possibility to limit the tree felling to bare minimum and with the permission from Competent Authority. The compensatory afforestation shall be done as per the guidelines of the Forest Department.
 - vii. Tailings from Iron Ore beneficiation plant shall be dewatered in filter press and no slime /tailing pond shall be permitted.
 - viii. TCLP analysis of the slag samples shall be carried out periodically. In case of presence of hazardous material, the same shall be sent to TSDF. In case of non-hazardous material, slag shall be utilized at project site for brick manufacturing and construction work after the recovery of metal.
 - ix. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.
 - x. Three tier Green Belt shall be developed in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Additional 30-meter-wide green belt development within the project area towards the Gourmudi village located at 250 m away from the project area shall be undertaken. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
 - xi. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
 - xii. Solid waste utilization
 - a. PP shall install a fly ash brick making plant.
 - b. PP shall recycle/reuse 100 % solid waste generated in the plant.

- c. Used refractories shall be recycled as far as possible.
- xiii. 85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil or LSHS as a fuel.
- xiv. As committed, TCLP test shall be carried out for Kiln Accretion slag and the analysis report shall be submitted to the IRO, MoEF&CC within a month.
- xv. Following additional arrangements to control fugitive dust shall be provided:
 - a. Fog / Mist Sprinklers at all on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
 - b. Proper covered vehicle shall be used while transport of materials.
 - c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.
- xvi. Dust emission from all the stacks shall be less than 30 mg/Nm³.
- xvii. Total water requirement after the proposed expansion will be 3,060 KLD. Existing water requirement of 260 KLD is being sourced from Ground water river. Water required for the proposed expansion project will be 2800 KLD and will be sourced from Gerwani / Shivpuri Nallah with permission from competent authority. No ground water abstraction is permitted for expansion project. PP shall also explore the possibility for shifting to alternative source of water for the existing requirement.
- xviii. Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.
- xix. The proposed project shall be designed as "Zero Liquid Discharge" Plant. No waste water will be discharged outside the plant boundary.
- xx. Tar shall be recovered from producer gas and shall be sold to registered processors and phenolic water shall be incinerated in After Burn Chamber (ABC) of DRI kilns.
- xxi. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- xxii. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- xxiii. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
- xxiv. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems

(thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

- xxv. The recommendations of the approved Site-Specific 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 of the MoEF&CC.

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

VII. Green Belt

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

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.
- iv. PP has to furnish coal dust, silica exposures at coal handling areas and alloy plants Fe-Si and Mn-Si alloy plants using personal/area sampling and to compare the results with Permissible limits as per Indian Factories Act. Report has to be submitted to IRO MoEFCC.

IX. Environment Management

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt Khairjhiti Village, Bhorng Village, Pirda Village, Kauwjhar Village, Tungaon Village, Tenduwahi, Kukradih, and Amawas villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

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

- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
- x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Consideration of Environmental Clearance Proposals

Agenda No. 10.11

10.11 Proposed Installation of Ferro Alloy Plant through Setting Up of 4x16.5 MVA Submerged Arc Furnaces along with Sinter & Briquette Plant at Village: Hat-Asuria and Basudebpur (North) and Hat-Asuria, P.O. Hat-Asuria, P.S. Barjora, District Bankura, West Bengal by M/s Maithan Ferrous Private Limited – Re-Consideration of Environmental Clearance.

[Proposal No. IA/WB/IND/80421/2018; File No. IA-J-11011/306/2018-IA-II(I)]

[Name of Consultant: M/s. Envirotech East Pvt. Ltd.; valid upto 12.09.2022]

10.11.1 M/s Maithan Ferrous Private Limited has made an online application vide proposal no. IA/WB/IND/80421/2018 dated 23.05.2022 along with copy of EIA/EMP Report, Form - 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

10.11.2 Name of the EIA consultant: M/s. Envirotech East Pvt. Ltd. [S. No. 175, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2124/SA 0145 valid till 12.09.2022; Rev. 24, July 05, 2022].

Details submitted by Project proponent

10.11.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	Validity of ToR
27 th September, 2018	1 st meeting of REAC (Industry-1), held on 26 th - 28 th November, 2018	Terms of Reference in the name of M/s. Maithan Alloys Limited	10.12.2018	09.12.2022
22 nd December 2020	-	Transfer of ToR from M/s. Maithan Alloys Limited to M/s. Maithan Ferrous Private Limited	14.01.2021	

10.11.4 The project of M/s Maithan Ferrous Private Limited is located at Village: Hat-Asuria and Basudebpur (North) and Hat-Asuria, P.O. Hat-Asuria, P.S. Barjora, District Bankura, West Bengal State for Proposed installation of following:

- Ferro Alloys Plant (4x16.5 MVA Submerged Arc Furnaces) for production of 1,20,000 TPA Ferro Alloys (Ferro Chrome, Silico Manganese, Ferro Silicon & Ferro Manganese)
- Sinter Plant (2 x 100 TPD) for production of 70,000 TPA Manganese Ore Sinter
- Chrome Ore Briquette Plant (2 x 30 TPH) for production of 3,00,000 TPA Chrome Ore Briquette

10.11.5 Environmental Site Settings:

S. N.	Particulars	Details			Remarks
i.	Total land	16.19 ha [Private: 16.19 ha]			Land use: Industrial – 16.19 ha
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	16.19 ha			The land for the proposed project is already under the possession of the Company.
iii.	Existence of habitation & involvement of R&R, if any	There is no habitation and no involvement of R&R.			Total land under the possession of the company.
iv.	Latitude and Longitude of the project site	POINTS	LATITUDE	LONGITUDE	-
		A	23°24'18.26"N	87°17'49.13"E	
		B	23°24'16.78"N	87°17'52.52"E	
		C	23°24'22.09"N	87°17'58.94"E	
		D	23°24'18.73"N	87°18'04.23"E	
		E	23°24'15.51"N	87°17'59.99"E	
		F	23°24'08.96"N	87°17'56.20"E	
		G	23°24'03.62"N	87°17'52.85"E	
		H	23°24'03.98"N	87°17'47.95"E	
		I	23°24'11.74"N	87°17'36.94"E	
J	23°24'10.17"N	87°17'44.67"E			
v.	Elevation of the project site	78.3 m (257 feet)			-
vi.	Involvement of Forest land if any.	No involvement of Forest Land.			-
vii.	Water body exists within the project site as well as study area	<p>Project Site: No water body in the project site.</p> <p>Study area: Damodar River - 6.0 km in NE direction</p>			-

S. N.	Particulars	Details	Remarks
viii.	Existence of ESZ / ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area	Nil	-

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

Name of the Unit	Proposed Capacity	Proposed Production	Products
Ferro Alloys Plant	4 x 16.5 MVA Submerged Arc Furnaces	1,20,000 TPA	Ferro Alloys (Ferro Chrome, Silico Manganese, Ferro Silicon & Ferro Manganese)
Sinter Plant	2 x 100 TPD	70,000 TPA	Manganese Ore Sinter
Briquette Plant	2 x 30 TPH	3,00,000 TPA	Chrome Ore Briquette

10.11.7 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	Items	Required QTY / MT of Product	Installed Capacity	Raw Material Requirement	Source	Distance (w.r.t Plant) (in km)	Mode of Transportation
		(MT)	(MTPA)	(MTPA)			
FOR PRODUCTION OF FERRO CHROME							
1	Chrome Ore	2.60	1,20,000	3,12,000	Orissa	370	Rail/ Road
2	Coke	0.40	1,20,000	48,000	Imp: China Dom: W Bengal / Jharkhand	100	Road
3	Coal	0.18	1,20,000	21,600	W Bengal / Jharkhand	100	Road
4	Quartz	0.02	1,20,000	2,400	W Bengal	100	Road
5	Dolomite	0.02	1,20,000	2,400	Orissa / Chhatisgarh	400/800	Road

Sl No	Items	Required QTY / MT of Product	Installed Capacity	Raw Material Requirement	Source	Distance (w.r.t Plant) (in km)	Mode of Transportation
		(MT)	(MTPA)	(MTPA)			
6	Lime	0.025	1,20,000	3,000	Orissa / Chhatisgarh	400/800	Road
7	Molasses	0.06	1,20,000	7,200	Uttar Pradesh	1500	Road
B	FOR PRODUCTION OF SILICO MANGANESE						
1	Manganese Ore	1.90	1,20,000	2,28,000	Imp: Australia / South Africa Dom: Balaghat / Barbil	270/1000	Rail/Road
2	Fe - Mn Slag	0.70	1,20,000	84,000	Own Generation / W Bengal	50	Road
3	Coal	0.40	1,20,000	48,000	W Bengal / Jharkhand	100	Road
4	Coke	0.40	1,20,000	48,000	W Bengal / Jharkhand	100	Road
5	Quartz	0.40	1,20,000	48,000	W Bengal / Andhra Pradesh	100	Road
C	FOR PRODUCTION OF FERRO SILICON						
1	Quartz	1.70	60,000	1,02,000	W Bengal / Andhra Pradesh	100	Road
2	Mill Scrap	0.43	60,000	25,800	W Bengal / Jharkhand	50	Road
3	M S Scrap	0.02	60,000	1,200	W Bengal / Jharkhand	50	Road
4	Charcoal	0.90	60,000	54,000	Andhra Pradesh / Tamilnadu	1500	Rail/Road
5	Lam Coke	0.55	60,000	33,000	Imp: China Dom: W Bengal / Jharkhand	100	Rail/Road
D	FOR PRODUCTION OF FERRO MANGANESE						
1	Manganese Ore	2.60	1,20,000	3,12,000	Imp: Australia / South Africa	270	Rail/Road
					Dom: Balaghat / Barbil / Bellary	1000	
2	Coal	0.40	1,20,000	48,000	W Bengal / Jharkhand	100	Road
3	Coke	0.40	1,20,000	48,000	Imp: China	270	Road
					Dom: W Bengal / Jharkhand / Assam	100	
4	Dolomite	0.03	1,20,000	3,600	Orissa / Chhatisgarh	400/800	Road

10.11.8 As per an initial estimate, water to the tune of around 650 m³/day (27.08 m³/hr) including 30 m³/day for domestic purposes will be required for the proposed project. The raw water will be sourced from Barjora Gram Panchayat supply system. No ground water shall be abstracted. The permission for drawl of 650 m³/day water is obtained from Barjora Gram Panchayat vide Permission letter vide Memo No. 01A/BPS/22 dated 21st April 2022.

10.11.9 The estimated power requirement of the proposed unit is around 64 MVA. The power requirement will be met from Damodar Valley Corporation (DVC).

10.11.10 Baseline Environmental Studies:

Period	1 st October, 2021 – 31 st December, 2021
AAQ parameters at 8 locations	<ul style="list-style-type: none"> • PM_{2.5} = 19 - 47 µg/m³ • PM₁₀ = 58 - 89 µg/m³ • SO₂ = 5 - 21 µg/m³ • NO₂ = 13 - 39 µg/m³ • CO = 0.143 - 1.142 mg/m³
Incremental GLC level	PM = 2.59 µg/m ³ (0.8 km in S)
Ground water quality at 9 locations	pH: 6.81 – 7.37, Total Hardness: 142 – 248 mg/l, Chlorides: 71 - 110 mg/l, Fluoride: 0.26 - 0.51 mg/l, Iron: 0.24 – 0.48 mg/l, TDS: 289 – 530 mg/l
Surface water quality at 10 locations (1 Reservoir water sample, 2 River water & 7 pond water samples)	<p><u>Damodar River Water</u> pH: 7.31 & 7.38, DO: 6.6 & 6.9 mg/l, BOD: 2 & 3 mg/l, COD: 11 & 8 mg/l, Fe: 0.16 & 0.18 mg/l, Coliform: 4100 & 3200 MPN/100 ml, TDS: 183 & 201 mg/l, Total Hardness: 96 & 104 mg/l, Chloride: 29 & 33 mg/l</p> <p><u>Pond Water</u> pH: 6.81 - 7.46, DO: 5.8 - 6.7 mg/l, BOD: 4 - 7 mg/l, COD: 17 - 32 mg/l, Fe: 0.12 - 0.18 mg/l, Coliform: 780 - 2400 MPN/100ml, TDS: 241 - 403 mg/l, Total Hardness: 114 - 164 mg/l, Chloride: 62 - 98 mg/l</p>
Noise levels	55.8 - 67.7 dBA for day time and 42.5 – 54.3 dBA for night time.
Traffic assessment study findings	<p>Existing Load (in PCU/day) :</p> <ul style="list-style-type: none"> ❖ 5513 at Hat Asuria More on Durgapur - Bankura SH - 9 ❖ 2389 on Hat Asuria - Pakhanna Road near Project site <p>Total Traffic Load During Operation of the Proposed Project (PCU/Day) :</p> <ul style="list-style-type: none"> ❖ 6322 at Hat Asuria More on Durgapur - Bankura SH - 9 ❖ 3197 on Hat Asuria - Pakhanna Road near Project site

	<p>As per IRC:106 – 1990 code, Guidelines for Capacity of Urban Roads in Plain Areas (PCU/day):</p> <ul style="list-style-type: none"> ❖ 15,000 for Durgapur-Bankura SH - 9 ❖ 15,000 for Hat Asuria - Pakhanna Road <p>The total traffic load during operation of the proposed project shall be well within the traffic capacity.</p>
Flora and fauna	Nil

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

Sl. No.	Solid Waste	Proposed Quantity (TPA)	Utilization or Management
1	Ferro Manganese Slag	96,000	Used as a raw material for Silico Manganese Production
2	Silico Manganese Slag	1,44,000	Used for road construction or land filling purposes
3	Ferro Chrome Slag	96,000	Used for road construction or land filling purposes after chrome recovery through Jigging Process and after TCLP test.
4	Ferro Silicon Slag	4,800	Used for cement industries as a raw material & used for medium carbon silico manganese production purpose.

10.11.12 Public Consultation:

Details of advertisement given	10 th February, 2022 in Bengali newspaper “Ajkal”, English newspaper “Millennium Post” and Hindi news paper “Sanmarg”
Date of public consultation	16 th March, 2022 at 12.00 hrs.
Venue	“Barjora Panchayat Samity Meeting Hall”, PS - Barjora, Dist.:- Bankura, West Bengal
Presiding Officer	Additional District Magistrate, Bankura
Major issues raised	<ul style="list-style-type: none"> • Generation of employment for the local people and youths • Development of greenbelt within the plant as per norm • Hat Asuria School development work & ICDS centre development work • Steps to be taken to control environmental pollution especially operation of Air Pollution Control Device during operation of the unit • Local road development work • Drinking water supply

It has been decided to develop one nearby village namely Hat Asuria by addressing the socio-economic needs of the villagers.

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

A) Public Hearing

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1 st Year	2 nd Year	3 rd Year	
<ul style="list-style-type: none"> • Generation of employment for the local people and youths 	<p>In the proposed project, top most priority will be given to the local people of Hat-Asuria village based on their academic qualification.</p> <p>Skill development to unemployed local youths through National Skill Development Corporation, Govt. of India Scheme. Construction of a building along with the necessary infrastructures for this purpose like different machinery for industries.</p>	Physical Target (3 Years)	Construction of a 2 – room building (total carpet area: 1200 sqft.) at Hat-Asuria with infrastructure development like installation of 4 sewing machines, 4 computer systems & 2 machines for making hand craft items along with necessary raw materials for training purpose.			20
		Budget in Lakhs	10	10	-	
<ul style="list-style-type: none"> • Development of Green Belt inside the plant premises as per the norm 	<ul style="list-style-type: none"> • Out of the total plant area of 16.19 hectares (40 acres), 5.34 hectares (33% of the total area) shall be covered under Green Belt. Around 13,400 number of trees (@2500 nos. of tree per hectares) has been considered under plantation programme in greenery development. 	Physical Target	Physical Target for greenbelt development inside the plant premises shall be achieved before commissioning of the project.			-
		Budget in Lakhs	Greenbelt development inside the plant included in the EMP Cost.			
<ul style="list-style-type: none"> • Hat Asuria School development work & ICDS Centre development work 	<p>Financial support will be given to the Hat Asuria School and ICDS Centre for the renovation / repairing work through extension of building / class room/ development of play ground / provision of computers for educational development purpose.</p>	Physical Target (3 years)	Development of existing building by creating extra space of 500 sq.ft at village Hat Asuria school and ICDS centre.	Development of one play ground of 7200 sq.m along with the sports items in the Hat Asuria School.	Supply of 30 nos. of computers with printers to Hat Asuria School and 10 nos. of RO Water cooling Filters for ICDS centre.	25
		Budget in Lakhs	7.5	5	12.5	

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1 st Year	2 nd Year	3 rd Year	
<ul style="list-style-type: none"> Steps to be taken to control environmental pollution especially operation of Air Pollution Control Device during operation of the unit 	<ul style="list-style-type: none"> Adequate control measures like installation of ESP, Bag filters, dust suppression system, fume extraction system, sprinklers & stacks of adequate height at relevant places will be installed. Air borne dust shall be controlled by mobile water tanker inside the plant premises. Maintenance of air pollution control equipment shall be done at regular intervals. All roads shall be paved on which movement of raw materials or products will take place inside the plant premises. No waste water will be discharged outside the plant area. The plant is designed as a zero-discharge plant. The entire wastewater will be recirculated and recycled. The equipment shall comply with the Statutory limit of 85 dB(A) (at 1 m. from the source). Noise Reduction Systems will be provided. 	Physical Target	The physical Target for the entire activities shall be achieved in 3 years.			-
		Budget in Lakhs	Included in the EMP Cost.			
<ul style="list-style-type: none"> Local road development work 	Construction of metal road (2 km) (@Rs. 24,00,000/- per Km) in the nearby three villages.	Physical Target (3 years)	Development of 1 km metal road at Hat Asuria	Development of 1 km metal road at Hat Asuria	-	48
		Budget in Lakhs	24	24	-	
<ul style="list-style-type: none"> Drinking Water Supply 	Development of Drinking Water Infrastructure - 6 numbers Tube well / Hand Pump in nearby villages (@ Rs. 50,000/- per Tube Well / Hand Pump).	Physical Target (3 years)	Providing 2 nos. Tubewell at village Hat Asuria	Providing 2 nos. Tubewell at village Hat Asuria	Providing 2 nos. Tubewell at village Hat Asuria	3
		Budget in Lakhs	1	1	1	

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1 st Year	2 nd Year	3 rd Year	
Total Budget - Public Hearing related: Rs. 96 Lakhs						

B) Need Based Activities

Need based Activities	Particulars	Year of Implementation			Total Expenditure (Rs. in Lakhs)
		1 st Year	2 nd Year	3 rd Year	
Providing Dustbins (300 nos @Rs. 1000/- per unit) in nearby villages (under Swachh Bharat Scheme) for waste segregation and handling	Physical Target:	100 nos. Dustbins at village Hat-Asuria	100 nos. Dustbins at village Ghutgoria	100 nos. Dustbins at village Bishanpur	3
	Budget : Rs. 3.0 Lakhs	Rs. 1 Lakhs	Rs. 1 Lakhs	Rs.1 Lakhs	
Rain Water Harvesting ponds in nearby villages (2 nos. @ Rs. 5 Lakhs per pond).	Physical Target:	1 Rain Water Harvesting Pond at village Hat-Asuria	1 Rain Water Harvesting Pond at village Ghutgoria	-	10
	Budget : Rs. 10 Lakhs	Rs. 5 Lakhs	Rs. 5 Lakhs	-	
Construction of 4 no of ground water Recharging system for rainwater in nearby villages (@ Rs. 2.5 lakhs per system).	Physical Target:	2 no. of ground water Recharging system at village Hat Asuria	2 no. of ground water Recharging system at village Harirampur	-	10
	Budget : Rs. 10 Lakhs	Rs. 5 Lakhs	Rs. 5 Lakhs	-	
Street Lighting (Solar) provision at suitable public places in and around the nearby villages (15 numbers, @ Rs. 20,000/- per Solar Light)	Physical Target:	Providing 5 nos. Solar light at village Hat-Asuria	Providing 5 nos. Solar light at village Hat-Asuria	Providing 5 nos. Solar light at village Harirampur	3.0
	Budget in Lakhs	1	1	1	
Total Budget - Need based activities : Rs. 26 Lakhs					
Overall Budget (Pubic Hearing related + Need based Activities): Rs. 122 Lakhs					

10.11.13 The capital cost of the project is Rs. 271 Crores and the capital cost for environmental protection measures is proposed as Rs. 16.5 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 1.53 Crores. The employment generation from the proposed project is 570 persons. The details of cost for environmental protection measures is as follows:

S. No.	Description of Item	Proposed (Rs. in Crores)	
		Capital Cost	Recurring Cost

S. No.	Description of Item	Proposed (Rs. in Crores)	
		Capital Cost	Recurring Cost
i.	Cost of Air Pollution Control Systems	12.0	1.20
ii.	Cost of Water conservation & Pollution Control	1.12	0.11
iii.	Cost of Solid Waste Management System	0.4	0.04
iv.	Green belt development	0.16	0.02
v.	Noise Reduction Systems	0.2	0.02
vi.	Occupational Health Management	0.3	0.03
vii.	Risk Mitigation & Safety Plan	0.5	0.05
viii.	Environmental Management Department	0.6	0.06
ix.	Total Budget - Public Hearing related	1.22	-
TOTAL		16.5	1.53

10.11.14 M/s. Maithan Ferrous Pvt. Ltd. has earmarked 5.34 hectare of land (33% of 16.19 hectare) for Green Belt Development within its proposed plant site at Village: Hat-Asuria and Basudebpur (North) and Hat-Asuria, P.O. Hat-Asuria, P.S. Barjora, District Bankura in West Bengal. Around 13,400 number of trees (@2500 nos. of tree per hectares) has been considered under plantation programme in greenbelt development.

10.11.15 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.

10.11.16 The proposal was initially considered in the 7th meeting of the EAC for Industry-I sector held on 13-14th June, 2022 wherein the Committee returned the proposal in its present form on account of the following technical shortcomings. The project proponent has submitted the revised EIA/EMP report addressing the shortcomings on PARIVESH on 09.07.2022 as follows:

Sl. No.	Point raised by EAC	Submission of PP
1.	The EAC noted that the Project Proponent has not even submitted the application for land conversion from the agricultural land to industrial purpose. The Committee is of the view that how PP will start the implementation of the project without land conversion to Industrial purpose and advised the Consultant to guide the PP properly so that the project can be implemented in time bound manner.	The PP has submitted the application for conversion of land from the agricultural to industrial purpose to The District Land & Land Reforms Officer through The Block Land & Land Reform Officer on 23.06.2022. The receipt copy of conversion application is uploaded in the ministry's website. The officials of the Company visited the office of The Block Land & Land Reform Officer for follow up and it was informed to them that Copy of No Objection Certificate (NOC) of the West Bengal Pollution Control Board (WBPCB) is required for processing of the application as per point no. 3(5) of Form 1 A – Application for change of character, conversion or alteration in the mode of use of land. It was informed by WBPCB officials that application for NOC for setting up an Industry can be submitted and processed at WBPCB on receipt of Environment Clearance, as the project falls under Sl no. 3(a), category "A" of the list of the projects of the schedule (i.e. Metallurgical

Sl. No.	Point raised by EAC	Submission of PP
		<p>industries (ferrous & non – ferrous) under Secondary metallurgical processing industry.</p> <p>The implementation of project can be initiated only after receipt of NOC from WBPCB. The Company is coordinating with the relevant authorities on regular basis. The past experience of the Promoters will be an added advantage to the company for speedy processing of their Conversion and NOC applications. The Promoters are already running the similar industries in the State of West Bengal and are very well conversant with the whole process.</p>
2.	<p>The River Damodar flowing at a distance of 6.0 km from the Project site in north-eastern side High Flood Level data has to be provided in EIA/EMP report for deliberation of the EAC.</p>	<p>A copy of Annual Flood Report 2021 published by the Irrigation & Waterways Directorate, Govt. of West Bengal, Kolkata is received in response of query related to High Flood Level data of river Damodar from the said department.</p> <p>The historical record of flood in West Bengal published in the Annual Flood Report 2021, suggests that the maximum occurrence of flood took place in the year 1978, 1984, 1991 & 2000 and data available for Durgapur Barrage in the year 2000 depict the maximum flood level as 64.465 meter</p>
3.	<p>EAC also noted that the TOR compliances in the EIA/EMP is ambiguous and only references are provided in the report. EAC advised the Consultant that they should submit the complete TOR compliances as per TOR granted by the Ministry.</p>	<p>TOR compliance has been revised in the EIA Report</p>
4.	<p>PP has not submitted the PPT as per the Template provide by the EAC in the agenda. EAC asked the Consultant about this. Consultant mentioned that he has not read the complete guidelines of the Agenda and requested the EAC to provide some time for submission of the revised application along with PPT.</p>	<p>The presentation slides have been prepared as per the Template provide by the EAC.</p>
5.	<p>The industry is going to use silica quartz in large quantities and going to produce Silico Manganese and Ferro Silicon alloy steel. Therefore, it is necessary to control silica/quartz exposures at production departments, not only emission norms as per Indian Factories Act. The permissible limit for silica/quartz should be</p>	<p>The Industry is using Silica Quartz in Lump form of the size 6 mm to 80 mm and there is no pulverised fine dust of Silica Quartz generated or usable in their production process. The Quartz Lumps are added with Manganese Ore / Chrome Ore for smelting into furnace. However, necessary control of silica / quartz exposures at production department will be monitored for personal and area exposures. All the requisite steps will be undertaken and monitored at highest level of management for safeguard of silica quartz dust in the process plant in consultation with experts of the field.</p>

Sl. No.	Point raised by EAC	Submission of PP
	<p>within 10 mg/m³ for total dust as per Indian Factories Act. Therefore, it is recommended to monitor personal and area exposures for silica quartz dust in the process plants.</p>	
6.	<p>Every tonne of (ferro-chrome) slag will contain about 270 kg SiO₂. However, only 20 kg of quartz is added per tonne of metal, equivalent to 1 tonne slag. This error must be corrected. (slide 14).</p>	<p>Every tonne of Ferro Chrome requires approx. 2600 Kgs of Chrome Ore, 400 Kgs of Coke, 180 Kgs of Coal, 20 Kgs of Quartz, 2.5 Kgs of Lime and 60 Kgs of Molasses are basic raw materials</p> <p>a. Silica Output from every tonne of Ferro Chrome: Every tonne of Ferro Chrome production generates 800 Kgs of Ferro Chrome Slag, which contains approx. 29% Silica i.e., 232 Kgs (800 Kg x 29%). Also, Every tonne of Ferro Chrome metal contains 4% of Si i.e., 85 Kg of Silica. Thus, total silica output for every tonne of Ferro Chrome production is approx. 317 Kg (232 Kg + 85 Kg).</p> <p>b. Silica Input for every tonne of Ferro Chrome: The quantity of Quartz added to Ferro Chrome production is approx. 20 Kg / MT Besides, Silica Input available through Coke & Coal is about 8% of total input of Coal & Coke i.e., 8% of 580 Kgs (400 Kg + 180 Kg) i.e., 46 Kgs And, Silica Input also available through Chrome Ore is about 10% of total chrome ore input i.e., 10% of 2600 Kgs i.e. 260 Kgs. Thus, total silica input for every tonne of Ferro Chrome production is approx. 326 Kg (260 Kg + 46 Kg + 20 Kg). The above data is approx. Silica Balance considered by the project proponent for Ferro Chrome Production.</p>
7.	<p>The coke rate budgeted is much higher than the industry norms (400 kg coke+400 kg coal is budgeted as against 300 kg coke/tonne FeMn being the industry norm). (slide 14).</p>	<p>The Project Proponent has considered 400 Kgs of Coal and 400 Kgs of Coke for the production of every tonne of Ferro Manganese.</p> <p>The Fixed Carbon required for the production of Ferro Manganese is approx. 400 Kg, which is projected from Coal having 45% Fixed Carbon on dry basis and 5% moisture and Coke having 65% Fixed Carbon on dry basis and 12% moisture.</p> <p>Thus, % of Effective Carbon available from Coal is approx. 42.75% (45 FC – 5% Moisture) and from Coke is approx. 57.2% (65 FC – 12% moisture). So, Average Effective Carbon available from every tonne of material is 49.975% [(42.75+57.2)/2]</p> <p>The total requirement of Fixed Carbon for production of Ferro Manganese is approx. 400. Thus, total quantity of Coal + Coke required is approx. 800 Kgs (400/49.975%).</p>
8.	<p>Why there is evaporation loss of 390 KLD in S.A.F. This water used</p>	<p>There is approx. 7.5 deg C temperature difference between Input water</p>

Sl. No.	Point raised by EAC	Submission of PP
	<p>only for cooling. All the water supplied to S.A.F. is lost as proposed here. Recycling of water and the proper calculations must be presented.</p>	<p>to Cooling Tower and Output water from Cooling Tower.</p> <p>Input water to cooling tower from furnace is approx. at 50 deg C and Latent Heat of evaporation is 2260 KJ. Water is evaporated at 100 deg C, So, some water molecule gained temperature upto 100 deg C.</p> <p>Thus, total heat absorbed is the sum total of heat required for temperature increase from 50 deg C to 100 deg C and Latent Heat of evaporation i.e. $4.2 \text{ KJ} \times 50 + 2260 \text{ KJ}$ i.e. $210 \text{ KJ} + 2260 \text{ KJ}$ i.e. 2470 KJ.</p> <p>So, Total heat lost by water for cooling of 7.5 deg C is $7.5 \times 4.2 \text{ KJ}$ i.e. 31.5 KJ</p> <p>Therefore, % of water evaporated in cooling is $31.5 \text{ KJ} / 2470 \text{ KJ} \times 100$ i.e. 1.275%</p> <p>There is approx. 400 KL of water in circulation for each hour for each furnace and total water in circulation is approx. $400 \text{ KL} \times 24 \text{ hrs} \times 4 \text{ Furnace}$ i.e. 38,400 KL per day for all the four furnaces.</p> <p>Out of 38,400 KL per day of water in circulation, 1.275% of water is evaporated. So, water evaporated per day is approx. $38400 \text{ KL} \times 1.275\%$ i.e. 490 KL</p> <p>The evaporation loss as mentioned in the report as 390 KLD is typographical error and properly rectified with the correct figure of 490 KLD in the final EIA / EMP report, being submitted herewith.</p>
9.	<p>Explain why there is 30 KLD of evaporation loss in sinter plant?</p>	<p>In the sintering process, water is added to the fines of ore and coke for mixing and to avoid fugitive emission as the particle size is very small. The entire added water gets evaporated and lost during the sinter process. The company proposes 20 KLD of water for its Sinter Plant</p>
10.	<p>Prepare and implement an action plan for the disposal of electronic waste.</p>	<p>The project is not very much prone to generation of electronic waste and few parts of the computers discarded / replaced over a period of 4-5 years may result in generation of electronic waste from the proposed project. The Company shall dispose off such waste through authorised agencies as per E-Waste (Management) Rules, 2016</p>
11.	<p>What is the estimated total weight of suspended particulate matter (SPM) generated per annum. What is the percentage of this captured by pollution control units?</p>	<p>Flue gas flow rate from Stack is $148798 \text{ Nm}^3/\text{hr}$ and PM emission rate is $1.24 \text{ gm} / \text{sec}$. So, PM generated per stack per day is 107 Kgs ($1.24 \text{ gm} / \text{sec} = 1.24 \times 3600 \times 24 \text{ gm} / \text{day} = 1.24 \times 3600 \times 24 / 1000 \text{ Kgs} / \text{day}$).</p> <p>Considering Number of working days per annum as 350 days, PM generated for 5 stacks per annum is approx. 187.5 MT ($107 \times 350 \times 5 / 1000$)</p> <p>The % of dust collected by pollution control equipment are generally 97% and PM emission is balance 3%.</p> <p>Thus, the estimated total weight of suspended particulate matter (SPM) generated per annum is approx. 6250 Mt / Annum ($187.5 / 3\%$). The PM emission per annum is approx. 187.5 MT and PM collected by pollution control units is approx. 97% of total PM generated i.e. $6062.5 \text{ Mt} / \text{Annum}$. ($6250 \times 97\%$).</p>

Sl. No.	Point raised by EAC	Submission of PP
12.	Document a plan of action to control emissions when these cross the critical limits. Give specific steps.	<p>The filter bags attached to the furnaces are capable of controlling emission from stacks of furnaces to the desired levels. Over the period of time, bags get damaged and require replacements. Any higher emission recorded by online monitoring system installed at the stacks require immediate inspection and replacement of filter bags to control the emission within desired limits.</p> <p>Fugitive emission will be controlled through measures like good housekeeping, proper maintenance, use of enclosed storage wherever feasible etc.</p>
13.	What is the quantum of solar energy planned to be generated in the Plant?	<p>The availability of proper space for the installation of solar panels are not available within the plant area. However, the company is exploring the possibility of installation of Solar Trees along the Green Belts area. The company also has planned to install solar street Lights at suitable places in and around the plant area</p>
14.	In view of the deficiencies in the project report, the PP/Consultant is requested to revise the EIA/EMP Report. The EAC accepted the request of Consultant/PP for revision of EIA/EMP Report. Since whole process is online on Parivesh Portal the PP/Consultant shall revise the application on Portal.	<p>The EIA/EMP report is revised and is uploaded in the Portal.</p>

Deliberations by the Committee

10.11.17 The Committee noted the following:

1. Instant proposal is for Proposed installation of Ferro Alloys Plant (4x16.5 MVA Submerged Arc Furnaces) for production of 1,20,000 TPA Ferro Alloys (Ferro Chrome, Silico Manganese, Ferro Silicon & Ferro Manganese), Sinter Plant (2 x 100 TPD) for production of 70,000 TPA Manganese Ore Sinter and Chrome Ore Briquette Plant (2 x 30 TPH) for production of 3,00,000 TPA Chrome Ore Briquette.
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will

be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. The proposal was initially considered in the 7th meeting of the EAC for Industry-I sector held on 13-14th June, 2022 wherein the Committee returned the proposal in its present form on account of technical shortcomings for which PP submitted the information on PARIVESH on 09.07.2022. The EAC deliberated on the information submitted by the PP and found it satisfactory.
6. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
7. The Damodar River is at 6.0 km in NE direction within the study area from the project site. PP shall implement the mitigation measures to protect Damodar River in the study area.
8. 650 m³/day (27.08 m³/hr) including 30 m³/day for domestic purposes will be required for the proposed project. The raw water will be sourced from Barjora Gram Panchayat supply system.
9. PP shall develop nearby village namely Hat Asuria by addressing the socio-economic needs of the villagers.
10. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the green belt development shall be completed in coming monsoon season.
11. 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.
12. The Committee also deliberated on the submission of PP on the issues raised by Committee in the previous EAC meeting held on 13-14th June, 2022 and found it satisfactory.
13. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
14. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable

from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

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

A. Specific conditions:

- (i) The Damodar River exists within the study area shall not be disturbed. Detailed mitigation measures to prevent any impacts on the river shall be implemented.
- (ii) The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (iv) The activities and the action plan proposed by the project proponent to address the issues raised during public hearing and socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.
- (v) Particulate matter emissions from all the stacks shall be less than 30 mg/Nm³.
- (vi) The PP shall develop nearby village namely Hat Asuria by addressing the socio-economic needs of the villagers and develop them into model villages in next 10 years.
- (vii) Three tier Green Belt shall be developed in a time frame of one year covering 33% of the total land area with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years.
- (viii) Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface
- (ix) Following additional arrangements to control fugitive dust shall be provided:
 - a. Fog /Mist Sprinklers at all on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
 - b. Proper covered vehicle shall be used while transport of materials.
 - c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.

- (x) All internal road and connecting road from project site to main highway shall be developed and maintained with suitable Million Axle Standard (MSA) as per the traffic load due to existing and proposed project.
- (xi) Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
- (xii) Sewage treatment plant shall be provided for domestic treatment plant.
- (xiii) PP shall be carried out periodically occupational health survey as per the applicable norms.
- (xiv) 4th hole extraction system shall be provided in the Sub Merged Arc Furnaces.
- (xv) Sinter Plant shall be equipped with Sinter cooler waste recovery system and suitable technology for control of dioxins and furans emissions from the plant.
- (xvi) 650 m³/day (27.08 m³/hr) including 30 m³/day for domestic purposes will be required for the proposed project. The raw water will be sourced from Barjora Gram Panchayat supply system after obtaining necessary permission from the Competent Authority. No ground water shall be abstracted.
- (xvii) Rain water harvesting shall be carried out as per the action plan submitted in the EIA report.
- (xviii) All the recommendations made in the risk assessment report shall be implemented and compliance status in this regard shall be furnished to the Regional Office of the MoEF&CC along with the six monthly compliance report.
- (xix) A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- (xx) All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- (xxi) The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
- (xxii) The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist

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

B. General conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

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

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); 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.
- vi. Tyre washing facilities shall be provided at the entrance/exit of the plant gates.

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

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.

- ii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.
- iii. The PP has to furnish coal dust, silica exposures at coal handling areas and alloy plants Fe-Si and Mn-Si alloy plants using personal/area sampling and to compare the results with permissible limits as per Indian Factories Act. Report has to be submitted to IRO MoEFCC.

IX. Environment Management

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
- ii. The company shall have a well laid down environmental policy duly 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 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. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
- x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Consideration of Amendment/Modification of Environmental Clearance Proposal

Agenda No. 10.12

10.12 Amendment in Environment Clearance with respect to use of Fuel Oil as a fuel for the Calciner in addition to Natural Gas (when made available for usage) in the Alumina Refinery (1.5 MTPA), Smelter Plant (2,50,000 TPA) along with a Captive Power Plant (150 MW) by M/s Anrak Aluminium Limited at Makavarapalem Mandal, District Vishakhapatnam, Andhra Pradesh – Consideration of Amendment in Environmental Clearance .

[Proposal No. IA/AP/IND/282901/2022, File No. J-11011/813/2007-IA II(I)]

10.12.1 M/s Anrak Aluminium Limited has made an online application vide proposal no. IA/AP/IND/282901/2022 dated 12.07.2022 along with Form-4 and addendum EIA report and sought for amendment in Environmental Clearance accorded by the Ministry vide File no. J-11011/813/2007-IA II(I) dated 16.10.2008 w.r.t. use of Fuel Oil as a fuel for the Calciner in addition to Natural Gas (when made available for usage).

10.12.2 Name of the EIA consultant: M/s J.M. EnviroNet Pvt. Ltd. [Sl. No. 41, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0186; valid upto 07.02.2023, Rev. 24, July 05, 2022].

Details submitted by Project proponent

10.12.3 M/s Anrak Aluminium Limited was granted environmental Clearance by MoEF&CC vide letter No. J-11011/813/2007-IA II(I) dated 16.10.2008 for Alumina Refinery (1.5 MTPA), Smelter Plant (2,50,000 TPA) alongwith Captive Power Plant (90 MW). Consent for Operation (CFO) from Andhra Pradesh State Pollution Control Board was obtained periodically from time to time and current Consent to Operate obtained from APPCB vide File No. APPCB/VSP/VSP/20298/HO/CFO/2017 dated 24/05/2022 and is valid till 31st day of August, 2023.

10.12.4 The instant proposal is for seeking amendment in EC dated 16.10.2008 with respect to following stipulation in the EC:

Reference of approved EC	Description as per approved EC	Description as per proposal	Justification by the PP
Para no. 3 (Page no. 1)	<i>Gas will be used as fuel for Calciner.</i>	<i>Gas/Fuel Oil shall be used as fuel for Calciner.</i>	<ul style="list-style-type: none">• Non availability of Gas from A.P. Govt. (Godavari gas)• Furnace oil, which earlier was proposed as an Alternate / Emergency fuel, will be used as a regular fuel, till the Natural gas is made available by Andhra Pradesh Gas Distribution Corporation (APGDC). The stack height

Reference of approved EC	Description as per approved EC	Description as per proposal	Justification by the PP
			<p>provided are based on sulphur content of furnace oil and AAQ modelling in EIA was done on this basis.</p> <ul style="list-style-type: none"> Fuel oil usage shall be discontinued after availability of natural gas.

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

10.12.6 Reason for Amendment: Andhra Pradesh Government had assured M/s. Anrak Aluminum Limited to supply Godavari gas for the project. It is quite unfortunate that till March 2022 the gas has not been made available. It has been communicated by authorities, in the meeting held on 30th March 2022 that the gas shall not be available till 2024.

10.12.7 Project Proponent further reported that:

1. The construction of the project got completed in March, 2013 and the project proponent has already made an investment of 5,600 Crores. An investment of 5,600 Cr is like a dead asset in view of non-availability of Bauxite ore and Natural Gas as per the commitment of the authorities.
2. While the project proponent has made alternate arrangement for Bauxite ore from overseas market, the arrangement for Natural Gas is beyond the control and influence of the project proponent.
3. Fortunately, the Calciner installed in the plant was designed for Fuel oil, Natural Gas and/or Mixed Fuel firing and due to this flexibility, pre-commissioning trials using fuel oil could be taken up. The Calciner chimneys have been designed for sulphur content of fuel oil and not for Natural gas. The original height of the Chimney was 60 m which has been changed to 102.7 m to comply with Sulphur content of the Fuel oil. Use of Fuel oil was originally envisaged during emergency only.
4. PP has taken steps to reduce pollution further by not using Pet coke in Power plant and also by modification of air pollution control systems to reduce PM emissions from 50 mg/Nm³ to 30 mg/Nm³.
5. Permission for use of Fuel oil in the Calciner is required till such time the Natural Gas is made available, in order to draw the benefit of large capital investment already incurred.

Deliberation by the Committee

10.12.8 The Committee noted the following:

- i. The instant proposal is for seeking amendment in EC dated 16.10.2008 with respect to use of Fuel Oil as a fuel for the Calciner in addition to Natural Gas (when made available for usage) as detailed in para 10.12.4 above.
- ii. M/s Anrak Aluminium Limited was granted environmental Clearance by MoEF&CC vide letter No. J-11011/813/2007-IA II(I) dated 16.10.2008 for Alumina Refinery (1.5

MTPA), Smelter Plant (2,50,000 TPA) alongwith Captive Power Plant (90 MW). Consent for Operation (CFO) from Andhra Pradesh State Pollution Control Board was obtained periodically from time to time and current Consent to Operate obtained from APPCB vide File No. APPCB/VSP/VSP/20298/HO/CFO/2017 dated 24/05/2022 and is valid till 31st day of August, 2023.

- iii. The construction of the project got completed in March, 2013 and the project proponent has already made an investment of 5,600 Crores.
- iv. The EAC also noted that Furnace oil, which earlier was proposed as an Alternate / Emergency fuel, will be used as a regular fuel, till the Natural gas is made available by Andhra Pradesh Gas Distribution Corporation (APGDC). The stack height provided are based on sulphur content of furnace oil and AAQ modelling in EIA was done on this basis. Fuel oil usage shall be discontinued after availability of natural gas.
- v. PP has taken steps to reduce pollution further by not using Pet coke in Power plant and also by modification of air pollution control systems to reduce PM emissions from 50 mg/Nm³ to 30 mg/Nm³.

Recommendations of the Committee

10.12.9 After deliberations, the Committee **recommended** for amendment in Environment Clearance no. J-11011/813/2007-IA II(I) dated 16.10.2008 w.r.t. use of Fuel Oil as a fuel for the Calciner in addition to Natural Gas (when made available for usage) as detailed in para 10.12.4 above with the following additional conditions that,

- (i) Fuel oil usage in calciner shall be discontinued after availability of natural gas;
- (ii) Project proponent shall submit a study report on De-carbonization program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.
- (iii) The PP has to monitor the report of fluoride concentration in respirable dust using personal/area samplers in all the process plants-smelter plant. Report needs to be submitted to the IRO, MoEFCC.
- (iv) The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

Consideration of TOR Proposals

Agenda No. 10.13

- 10.13 Regularization of the existing project of Rolling Mill having capacity of MS TMT Bars of 1,24,500 MTPA (415TPD) and Gas/LSHS Fired Re- Heating Furnace -21TPH” by M/s Elegance TMT Pvt. Ltd., located at Plot no.# 812/B-4 &5, RIICO Industrial Area, Bhiwadi, Tehsil-Tijara, District. Alwar, Rajasthan – Consideration of TOR.**
[Proposal No. IA/RJ/IND/279491/2022; File No. IA-J-11011/225/2022-IA-II(IND-I)]

- 10.13.1** M/s. Elegance TMT Private Limited has made an application online vide proposal no. IA/RJ/IND/279491/2022 dated 12.07.2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No.3(a) Metallurgical Industries (Ferrous and Non/ferrous) under Category “A” of the schedule of the EIA Notification, 2006 and attracts general condition due to Inter-state boundary of Rajasthan & Haryana lies at a distance 1.67 Km, N and appraised at central level.
- 10.13.2** Name of the EIA consultant: M/s. Enkay Enviro Services Pvt. Ltd. [S.No. 112, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/RA 0183 valid till 12.12.2023; Rev. 24, July 05, 2022].

Details submitted by Project proponent

- 10.13.3** The project of M/s Elegance TMT Private Limited located in RIICO Industrial Area Bhiwadi, Tehsil - Tijara, District- Alwar, Rajasthan is for "Regularization of the existing project of Rolling Mill having capacity of MS TMT Bars of 1,24,500 MTPA (415TPD) and Gas/LSHS Fired Re- Heating Furnace -21TPH”.
- 10.13.4** Environmental site settings:

S. No.	Particulars	Details	Remarks		
i.	Total land	Total plot Area is 16,076Sq.m. (1.6076Ha) - RIICO Industrial land	There is no change is land use w.r.t. land allotted by RIICO.		
S. No.	Land Use	Area (Sq.m)		Total area	Percentage (%)
		Existing Area	Proposed Area		
1.	Plant Area	6841.94	None	6841.94	42.56
2.	Paved Area (Road, Corridor,)	8369.26	None	8369.26	52.06
3.	Green Belt Area	864.80	-	864.80	5.38

S. No.	Particulars	Details			Remarks										
4.	Open area	None	None	None	--										
Total		16,076	--	16,076	100										
Note*: The green area inside the premises is 5.38 % due to land constraint. The unit will made an agreement with RIICO plantation. The rest 34.62% area will be planted outside the plant premises along the park of RIICO industrial area in the impact zone of the project.															
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	<p>R&R not Applicable as land is already converted for industrial use. (RIICO Industrial Area)</p> <ul style="list-style-type: none"> Initially, The land of plot no. SP-812/ B-4 & 5, RIICO Industrial Area, Bhiwadi, Distt. Alwar, Rajasthan comprising of land measuring plot size 16,000 Sq.M. Purchased by M/s DSR Tor Steel Pvt. Ltd. from RIICO Ltd. The Lease deed was executed and registered on dated 23.10.1992 between RIICO and M/s DSR Tor Steel Pvt. Ltd. Registered Sale deed was executed and Registered on 22.11.2017 between M/s DSR Tor Steel Pvt. Ltd. and M/s Elegance TMT PVT. Ltd. The RIICO has given permission for transfer of lease hold rights of Plot No. SP812/ B-4 & 5(Corner), RIICO Industrial Area, Bhiwadi, Measuring area of 16,076 Sq.M. in favour of M/s Elegance TMT Pvt. Ltd. on dated 13.12.2017. 			Existing project is already situated in Bhiwadi RIICO Industrial Area										
iii.	Existence of habitation & involvement of R&R, if any.	<p>Project site: RIICO Industrial Area, Bhiwadi</p> <p>Study Area:</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance(km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Santhalka</td> <td>0.45</td> <td>S</td> </tr> </tbody> </table> <p>Status of R&R :Not applicable</p>			Habitation	Distance(km)	Direction	Santhalka	0.45	S	Status of R&R :Not applicable as land is already converted for industrial use. (RIICO Industrial Area) there is no habitation in the existing area, therefore rehabilitation & resettlement plan is not required/ applicable.				
Habitation	Distance(km)	Direction													
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iv.	Latitude and Longitude of all corners of the project site.	<table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>28°12'16.69"N</td> <td>76°51'3.73"E</td> </tr> <tr> <td>(2)</td> <td>28°12'13.41"N</td> <td>76°51'3.29"E</td> </tr> <tr> <td>(3)</td> <td>28°12'14.11"N</td> <td>76°50'57.34"E</td> </tr> </tbody> </table>	Point	Latitude	Longitude	(1)	28°12'16.69"N	76°51'3.73"E	(2)	28°12'13.41"N	76°51'3.29"E	(3)	28°12'14.11"N	76°50'57.34"E	--
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		(4)	28°12'17.35"N	76°50'57.81"E																																																							
v.	Elevation of the project site	The highest and lowest elevation of the project site is 262 MSL and 260 MSL			--																																																						
vi.	Involvement of Forest land if any.	The proposed project does not involve/fall in any forest land.			The land lies in RIICO Industrial area.																																																						
vii.	Water body (Rivers,Lakes, Pond,Nala,Natural Drainage,Canal etc.) exists within the project site as well as study area	<p>Project site: No natural water bodies exist within the project site.</p> <p>Study Area:</p> <table border="1"> <thead> <tr> <th>Water Bodies</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Sahibi River</td> <td>9.60</td> <td>W</td> </tr> <tr> <td>Indori Nala</td> <td>6.24</td> <td>E</td> </tr> <tr> <td>Sare Khurd Canal</td> <td>6.85</td> <td>SE</td> </tr> <tr> <td>Pond N/V Sare Khurd</td> <td>10.85</td> <td>SE</td> </tr> <tr> <td>Nuh subbranch (Gurgaon Canal)</td> <td>14.93</td> <td>ESE</td> </tr> <tr> <td>Pataudi Distributary</td> <td>12.71</td> <td>NNW</td> </tr> <tr> <td>Nikhari Distributary</td> <td>12.28</td> <td>W</td> </tr> </tbody> </table>			Water Bodies	Distance	Direction	Sahibi River	9.60	W	Indori Nala	6.24	E	Sare Khurd Canal	6.85	SE	Pond N/V Sare Khurd	10.85	SE	Nuh subbranch (Gurgaon Canal)	14.93	ESE	Pataudi Distributary	12.71	NNW	Nikhari Distributary	12.28	W	--																														
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viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	<p>Nil</p> <p>List of Reserved and protected forests: Are given in the following table.</p> <table border="1"> <thead> <tr> <th>Forests</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Gondhan Protected Forest</td> <td>2.36</td> <td>S</td> </tr> <tr> <td>Rangala Reserved Forest</td> <td>2.64</td> <td>NNE</td> </tr> <tr> <td>Banvan Protected Forest</td> <td>4.96</td> <td>SSE</td> </tr> <tr> <td>Chaupanki Protected Forest</td> <td>7.43</td> <td>SSE</td> </tr> <tr> <td>Sarekalan Protected Forest</td> <td>8.95</td> <td>SE</td> </tr> <tr> <td>Khorikalan Protected Forest</td> <td>8.76</td> <td>S</td> </tr> <tr> <td>Indaur Reserved Forest</td> <td>9.69</td> <td>SE</td> </tr> <tr> <td>Guwalda Protected Forest</td> <td>10.53</td> <td>S</td> </tr> <tr> <td>Tapkan Protected Forest</td> <td>12.68</td> <td>ESE</td> </tr> <tr> <td>Kulawat Protected Forest</td> <td>12.95</td> <td>SE</td> </tr> <tr> <td>Rahna Protected Forest</td> <td>13.26</td> <td>ESE</td> </tr> <tr> <td>Choharpur Protected Forest</td> <td>13.03</td> <td>SE</td> </tr> <tr> <td>Nurpur Protected Forest</td> <td>13.10</td> <td>ESE</td> </tr> <tr> <td>Biwan Reserved Forest</td> <td>13.83</td> <td>SE</td> </tr> <tr> <td>Sonkh Protected Forest</td> <td>13.89</td> <td>SE</td> </tr> <tr> <td>Palla Protected Forest</td> <td>14.00</td> <td>SE</td> </tr> <tr> <td>Sadain Protected Forest</td> <td>14.30</td> <td>ESE</td> </tr> </tbody> </table>			Forests	Distance (km)	Direction	Gondhan Protected Forest	2.36	S	Rangala Reserved Forest	2.64	NNE	Banvan Protected Forest	4.96	SSE	Chaupanki Protected Forest	7.43	SSE	Sarekalan Protected Forest	8.95	SE	Khorikalan Protected Forest	8.76	S	Indaur Reserved Forest	9.69	SE	Guwalda Protected Forest	10.53	S	Tapkan Protected Forest	12.68	ESE	Kulawat Protected Forest	12.95	SE	Rahna Protected Forest	13.26	ESE	Choharpur Protected Forest	13.03	SE	Nurpur Protected Forest	13.10	ESE	Biwan Reserved Forest	13.83	SE	Sonkh Protected Forest	13.89	SE	Palla Protected Forest	14.00	SE	Sadain Protected Forest	14.30	ESE	
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10.13.5 The existing project was accorded Consent to Establish vide letter no. F(Tech)/Alwar(Tijara)/411(1)/2010-2011/3649-3651 dated 29.08.2018. The proposal has been applied first time for obtaining Environmental Clearance as previously the project of Rolling Mill was not covered under the purview of Environmental Clearance under EIA Notification 2006. (Secondary metallurgical processing industries with Production ≤60,000 TPA). Latest Consent to Operate (Latest) for the existing unit was accorded by Rajasthan State Pollution Control Board vide letter no. F(Tech)/Alwar(Tijara)/411(1)/2010-2011/3667-3669 dated 29.08.2018. The validity of CTO was up to 31.05.2023.

10.13.6 Implementation status of the existing CTE/CTO:

CTO & CTE	CAPACITY	Letter No.	Validity Period
CTE for expansion of MS TMT Bars & Reheating Furnace, DG Set(400KVA)	24,000 TPA to 1,24,500 TPA (80 TPD to 415 TPD) and 6TPH to 21 TPH	F(Tech)/ Alwar(Tijara)/ 411(1)/ 2010-2011/3649-3651 dated 29.08.2018	20.01.2018 To 31.12.2022
CTO for Expansion in Capacity of M.S. TMT BARS & Reheating Furnace, DG Sets(125KVA, 400KVA)	24,000 MTPA to 1,24,500 MTPA (80 TPD to 415 TPD) and 21 TPH	F(Tech)/ Alwar(Tijara)/ 411(1)/ 2010-2011/3667-3669 dated 29.08.2018	01.06.2018 to 31.05.2023

Note: All valid CTO was in favour of M/s. DSR Steel Pvt. Ltd. to capacity of 24,000TPA. The industry sold to Elegance TMT Pvt. Ltd. in the year 2017 and since then the unit is having valid CTO till dated 31.05.2023.

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

S. No.	Product	Existing Capacity (MTPA)	Total Capacity (MTPA)
1.	MS TMT Bars	1,24,500 MTPA (415TPD)	1,24,500 MTPA (415TPD)
2.	Gas/LSHS Fired Re-Heating Furnace	21TPH	21TPH

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

S. No.	Raw Material	Existing	Total	Source	Mode of transport
		Consumption			
1	MS Billets	440.036MT/Day	440.036MT/Day	Local	Transported by Trucks
2	Coal	20 kg/Ton/day	20 kg/Ton/day	Local	

** Note: The industry will shift on PNG before 30.09.2022. The agreement has been done with*

- 10.13.9** Existing one-time water requirement is 48 m³/day, out of which 18 m³/day of fresh water requirement is being obtained from the ground water and permission for the same has been obtained from CGWA vides letter no. CGWA/NOC/IND/ORIG/2021/15702 dated 11.05.2022 and the remaining 30 m³/day is being met from the Recycling.
- 10.13.10** Existing power requirement of 3000kVA (6026KW Sanctioned capacity) is obtained from JVVNL, Alwar from nearest GSS Neelam Chowk Bhiwadi-132KV.
- 10.13.11** The capital cost of the project is Rs 45.0 Crores and the capital cost for environmental protection measures is proposed as Rs 0.99 Crores and recurring cost as Rs. 0.10 Crores. The employment generation from the existing project is 200.
- 10.13.12** 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. Project Proponent has submitted an undertaking in the form of affidavit in India non-judicial stamp dated 22nd June, 2022 stating that there is no litigation pending against the project and/or land in which the project is set up.
- 10.13.13** Proposed Terms of Reference: [Baseline data collection period: March to May 2022]

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
A. Air Environment				
Meteorological Wind Speed Wind Direction Max. Temperature Min. Temperature Relative Humidity Rain fall Solar radiation Cloud cover	1-site area in the project impact area- site area	One hourly continuous	Mechanical/Automatic Weather stations Max/ Min Thermometer Hygrometer Rain gauge As per IMD specifications	IS 5182 Part1-20 Site specific primary data is essential Secondary data from IMD
Pollutants Pollutants PM ₍₁₀₎ PM _(2.5)	8 locations Including Site	24 hourly twice a week	As per CPCB Guidelines Gravimetric (High-Volume with Cyclone)	IS 11255(Part 1):1985
SO ₂			Improved West & Gaeke	IS 5182(Part 2):2001
NO _x			Modified Jacob Hochheiser	IS 5182(Part 6):1975
CO		8 hourly twice a week	NDIR Method	IS 5182(Part 10):1999

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
B. Noise				
Hourly equivalent noise levels	8 locations including Project site.	Frequency Once in season	Integrated Sound Level Measurement Instrument, DT - 805 issued by Mextech	IS: 4954-1968 as adopted by CPCB. CPCB/ OSHA IS:5954-1968
Hourly equivalent noise levels	--	Once		
Hourly equivalent noise levels	Site	Once in season		
C. Water				
Parameters for water quality	8 locations Including Site	Once in season		
Colour (in hazen units)			Visual Method	IS : 3025 (P-4) 1983
Odour			Manual	IS : 3025 (P-5) 1983
Temperature °C			Thermometer	IS 3025(Part 9):1984
pH			pH meter	IS : 3025 (P-11)1983
Turbidity (NTU)			Nephelometer	IS 3025(Part 10):1984
Total Dissolved Solids (mg/l)			Gravimetric	IS : 3025 (P-16) 1984
Biochemical Oxygen Demand (mg/l)			DO consumption in 3 days at 27°C	IS : 3025 (P-44) 1993
Carbonate as CaCO ₃ (mg CaCO ₃ /l)			Titrimetric	IS 3025(Part 51):2001
Coliform (No./100 ml)			MPN	IS : 5401
Fecal Coliform			MPN	IS : 5401
Sodium as Na (mg/l)			Flame photometry	IS 3025(Part 45):1993
Potassium as K (mg/l)			Flame photometry	IS 3025(Part 45):1993
Chloride as Cl (mg/l)	Argentometric titration	IS 15210(Part 0/Sec 0):2002/ ISO 8762		

Attributes & Parameters	Sampling		Measurement Method	Protocol	
	No. of stations	Frequency			
Nitrite (mg N/L)			Colorometry		
Chemical Oxygen Demand (mg/l)			Potassium dichromate method		
Magnesium (mg CaCO ₃ /l)			EDTA Titrimetric		IS 3025(Part 46):1994
Sulphate (mg/l)			Turbidimetry		IS 3025(Part 24):1986
D. Land Environment					
Soil Texture pH Electrical Conductivity Bulk density Porosity Total organic carbon N, P, K, Zinc, Cd Chloride, Alkali metal, permeability, Water holding capacity, Cu, Iron as Fe, Moisture content, Boron as B	8 sample from project sit as well as nearby agriculture land.(soil samples has been collected as per BIS specifications)	Season wise	Collected and analyzed as per soil analysis reference book, M.I. Jackson and soil analysis reference book by C.A. Black	Once in a year.	
Land use/ Landscape Location code Total project area Topography Drainage (Natural) Cultivated, forest, plantations, water bodies, roads and settlements		--	Global Positioning System Toposheet (1:50,000) Satellite Imagery* (1:50,000)		
E. Biological Environment					

Attributes & Parameters	Sampling		Measurement Method	Protocol						
	No. of stations	Frequency								
<table border="1"> <tr><td>Plants</td></tr> <tr><td>Butterflies</td></tr> <tr><td>Amphibians</td></tr> <tr><td>Reptiles</td></tr> <tr><td>Birds</td></tr> <tr><td>Mammals</td></tr> </table>	Plants	Butterflies	Amphibians	Reptiles	Birds	Mammals	--	Three- five days in each months	Quadrate sampling/ enumeration/ survey methods Transect method/ Visual encounter survey Visual encounter survey/ Opportunistic survey Visual encounter survey/ Opportunistic survey Point count/ Opportunistic survey Tracks / signs and visual encounter survey	Preliminary assessment point quarter plot-less method for terrestrial vegetation survey
Plants										
Butterflies										
Amphibians										
Reptiles										
Birds										
Mammals										
Fauna, Avian fauna, Rare and endangered species Sanctuaries/ National park/ Biosphere reserve/ Migratory routes.	--	--	--	Secondary data to be collected from Government offices, NGO's published literature.						
F. Socio-Economic Environment										
Demographic structure infrastructure resource base Economic resource base health status: Occupation	Socio- Economic observation will be based on random sampling method with access to the nearest habitation to the extent	One site visit and prior to the final submission of the project.	Primary data collection through questionnaire and interviews	Secondary data from census records, statistical hand-books, toposheets, health records and relevant official records available						

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
pattern cultural and aesthetic attributes education	possible.			in public domain.

Deliberation by the Committee

10.13.14 The Committee noted the following:

- i. The instant proposal is for regularization of the existing project of Rolling Mill having capacity of MS TMT Bars of 1,24,500 MTPA (415TPD) and Gas/LSHS Fired Re-Heating Furnace -21TPH.
- ii. The proposal is for regularization of existing unit in compliance of MoEF&CC letter no. F. No. - IA-J-11013/24/2022-IA-II(I) dated 13.04.2022 to Rajasthan State Pollution Control Board and order of Hon'ble National Green Tribunal in O.A. no. 55/2019(WZ) in matter of Gajubha Jesar Jadeja vs Union of India & Ors. dated 12.02.2020 & Letter no. F. No. - IA-J-11013/24/2022-IA-II(I) dated 13.04.2022.
- iii. The EAC deliberated on the proposal. Based on the KML file presented by the PP, the proposed Unit is brown field project and the project was operational based on the CTE/CTO obtained from the State Pollution Control Board.
- iv. The EAC noted that the instant project comes under Critically Polluted Area (CPA). PP has committed the proposed mitigation measures and detailed action plan to be submitted in the EIA/EMP Report and documents submitted in Form 1.
- v. The Commission for Air Quality Management in National Capital Region and Adjoining Areas is opinion that air pollution is generated in the reheating furnaces of the Steel rolling mills and therefore made compulsory the use of clean fuel to control air pollution and improve air quality. Commission has issued various direction in GNCTD & NCR to switch over on PNG/LSHS (Low Sulphur Heavy Stock) by 30.09.2022.
- vi. The Ministry has issued a notification on 20th July 2022 and directed that all the standalone re-rolling units or cold rolling units, which are in existence and in operation as on the date of this notification, with valid CTE and CTO from the concerned SPCB/PCC, shall apply online for grant of Terms of Reference (ToR) followed by Environment Clearance and the said units shall be granted Standard Terms of Reference and shall be exempted from the requirement of public consultation, Provided that the application for the grant of ToR shall be made within a period of one year i.e. up to 19th July 2023.
- vii. The EAC also noted that the instant project is located at a distance of 1.67 Km, N Inter-state boundary of Rajasthan & Haryana, hence PP has applied at the Central level as a Category 'A' project for obtaining EC under the provisions of the EIA Notification, 2006.
- viii. The EAC also noted that previously all valid CTO was in favour of M/s. DSR Steel Pvt. Ltd. to capacity of 24,000TPA. The industry sold to Elegance TMT Pvt. Ltd. in the year

2017 and since then the unit is having valid CTO till dated 31.05.2023 for 1,24,500 MTPA (415TPD).

- ix. The existing greenbelt area is 5.38% due to land constraint. The unit will made an agreement with RIICO plantation. The rest 34.62% area will be planted outside the plant premises along the park of RIICO industrial area in the impact zone of the project.
- x. Project Proponent has submitted an undertaking in the form of affidavit in India non-judicial stamp dated 22nd June, 2022 stating that there is no litigation pending against the project and/or land in which the project is set up.

Recommendations of the Committee

10.13.15 After deliberations, the Committee **recommended** the project proposal for prescribing following **specific ToRs** for undertaking detailed EIA and EMP study, in addition to the generic ToRs enclosed at **Annexure-3 read with additional ToRs at Annexure-2:**

- (i) The implementation on the Direction issued by the Commission for Air Quality Management in National Region and Adjoining Areas.
- (ii) The implementation of the Action Plan/Mitigation measures as prescribed for the CPA, as the Unit is located in CPA.
- (iii) In compliance to Ministry's Notification vide S.O. 3250(E) dated 20th July, 2022, all the standalone re-rolling units or cold rolling units, which are in existence and in operation as on the date of this notification, with valid Consent to Establish (CTE) and Consent to Operate (CTO), applying for ToR within a period of one year i.e. up to 19th July 2023 shall be exempted from the requirement of public consultation. Therefore, in this case Public Consultation is exempted.
- (iv) The industry shall use CETP treated waste water for industrial processes to reduce the stress on Ground water resource as and when made available, accordingly the PP will incorporate the water balance in the EIA/EMP Report.
- (v) Ground water shall be abstracted only for the domestic water demand (drinking purpose only). PP shall explore the possibility of shifting to alternative source of water to meet the water requirement needs.
- (vi) The industry shall use PNG gas as per direction no. 64 of the Commission for Air Quality Management in National Region and Adjoining Areas.
- (vii) The Sahibi River exists nearby of the project site. The PP shall submit the suitable steps /conservation plan along with contouring, Run -off calculations, disposal etc. As a river exist nearby of the project area, so a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided.
- (viii) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.

- (ix) Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. PP shall submit an action plan for gradual phasing out of ground water consumption and switching to alternative source of water.
- (x) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- (xi) PP shall submit action plan for rainwater harvesting.
- (xii) Action plan for 100 % solid waste utilization shall be submitted.
- (xiii) Project proponent shall prepare layout plan showing all internal roads minimum 6m width and 9m turning radius with proper looping for smooth traffic flow, including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing.
- (xiv) Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.
- (xv) Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.
- (xvi) As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.
- (xvii) Action plan to limit the dust emission from all the stacks below 30 mg/Nm³ shall be furnished.
- (xviii) Action plan for fugitive emission control in the plant premises shall be provided.
- (xix) Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
- (xx) An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in atleast 40% of total area with a tree density of not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years.

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

Agenda No. 10.14

10.14 Regularization of the existing project of Rolling Mill having capacity of MS Steel Bars (HSD) of 1,20,000 MTPA (400TPD)(Installed Capacity 2,40,000MTPA),Re- Heating Furnace – 25TPH” by M/s. Shri Rathi Steel (Dakshin) Limited, located at Plot no .#SP-A/1, RIICO Industrial Area, Khushkhera, Tehsil -Tijara, District. Alwar, Rajasthan– Consideration of TOR for Regularization project.

[Proposal No. IA/RJ/IND/277454/2022; File No. IA-J-11011/203/2022-IA-II(IND-I)]

10.14.1 M/s. Shri Rathi Steel (Dakshin) Limited has made an application online vide proposal no. IA/RJ/IND/277454/2022 dated 08.07.2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No.3(a) Metallurgical Industries (Ferrous and Non/ferrous) under Category “A” of the schedule of the EIA Notification, 2006 and attracts general condition due to Inter-state boundary of Rajasthan & Haryana lies at a distance 2.92 Km, N and appraised at central level.

10.14.2 Name of the EIA consultant: M/s. Enkay Enviro Services Pvt. Ltd. [S.No. 112, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/RA 0183 valid till 12.12.2023; Rev. 24, July 05, 2022].

Details submitted by Project proponent

10.14.3 The project of M/s Shri Rathi Steel (Dakshin) Limited located in RIICO Industrial Area Khushkhera, Tehsil - Tijara, District- Alwar, Rajasthan State is for "Regularization of the existing project of Rolling Mill having capacity of MS Steel Bars(HSD) of 1,20,000 MTPA (400TPD)(Installed Capacity 2,40,000MTPA),Re- Heating Furnace – 25TPH”.

10.14.4 Environmental site settings:

S. No.	Particulars	Details			Remarks
i.	Total land	Total plot Area is 26,812Sq.m.(2.68Ha)			There is no change is land use w.r.t. land allotted by RIICO.
S. No.	Land Use	Area (Sq.m)		Total area	Percentage (%)
		Existing	Proposed Area		

S. No.	Particulars	Details					Remarks										
			Area														
	1.	Plant Area	17422.34	None	17422.34	64.97											
	2.	Paved Area (Road, Corridor,)	8664.86	None	8664.86	32.33											
	3.	Green Belt Area	724.80	None	724.80	2.70											
	4.	Open area	-	None	-	-											
	Total		26,812	--	26,812	100.00											
	<p>Note*: The green area developed inside the premises is 2.70% due to land constraint. The unit will made an agreement with RIICO plantation. The rest 37.30% area will be planted outside the plant premises along the park of RIICO industrial area in the impact zone of the project.</p>																
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Not Applicable as land is already converted for industrial use. (RIICO Industrial Area)					Existing project is already situated in Khushkhera RIICO Industrial Area										
iii.	Existence of habitation & involvement of R&R, if any.	<p>Project site: RIICO Industrial Area, Khushkhera</p> <p>Study Area:</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance(km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Choti Karoli</td> <td>0.42</td> <td>S</td> </tr> </tbody> </table> <p>Status of R&R :Not applicable</p>					Habitation	Distance(km)	Direction	Choti Karoli	0.42	S	<p>Status of R&R :Not applicable as land is already converted for industrial use. (RIICO Industrial Area) there is no habitation in the existing area, therefore rehabilitation & resettlement plan is not required/ applicable.</p>				
Habitation	Distance(km)	Direction															
Choti Karoli	0.42	S															
iv.	Latitude and Longitude of all corners of the project site.		<table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>28° 7'20.18"N</td> <td>76°47'55.17"E</td> </tr> <tr> <td>(2)</td> <td>28° 7'16.99"N</td> <td>76°47'53.89"E</td> </tr> <tr> <td>(3)</td> <td>28° 7'17.88"N</td> <td>76°47'50.88"E</td> </tr> </tbody> </table>	Point	Latitude	Longitude	(1)	28° 7'20.18"N	76°47'55.17"E	(2)	28° 7'16.99"N	76°47'53.89"E	(3)	28° 7'17.88"N	76°47'50.88"E		--
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S. No.	Particulars	Details				Remarks																																										
			(4)	28° 7'19.09"N	76°47'44.39"E																																											
			(5)	28° 7'22.19"N	76°47'45.29"E																																											
v.	Elevation of the project site	The highest and lowest elevation of the project site is 264 MSL and 262 MSL				--																																										
vi.	Involvement of Forest land if any.	The proposed project does not involved/fall in any forest land. Status of stage I Forest Clearance: Not Applicable Area of the forest land involve: Not Applicable				The land lies in RIICO Industrial area.																																										
vii.	Water body (Rivers,Lakes, Pond,Nala,Natural Drainage,Canal etc.) exists within the project site as well as study area	Project site: No natural water bodies exist within the project site. Study Area: <table border="1"> <thead> <tr> <th>Water Bodies</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Sahibi River</td> <td>4.91</td> <td>WSW</td> </tr> <tr> <td>Raliawas Distributary</td> <td>9.21</td> <td>WNW</td> </tr> <tr> <td>Rattanpur Distributary</td> <td>9.33</td> <td>W</td> </tr> <tr> <td>Chaondi Nadi</td> <td>8.49</td> <td>S</td> </tr> <tr> <td>Garhi Bolni Distributary</td> <td>10.10</td> <td>W</td> </tr> <tr> <td>Nikhari Distributary</td> <td>10.91</td> <td>NW</td> </tr> <tr> <td>Sare Khurd Canal</td> <td>10.89</td> <td>ENE</td> </tr> <tr> <td>Kheri Motla Distributary</td> <td>12.76</td> <td>WSW</td> </tr> <tr> <td>Water Pond N/V Sare Khurd</td> <td>13.10</td> <td>E</td> </tr> <tr> <td>Jitpur Distributary</td> <td>13.64</td> <td>NW</td> </tr> </tbody> </table>				Water Bodies	Distance	Direction	Sahibi River	4.91	WSW	Raliawas Distributary	9.21	WNW	Rattanpur Distributary	9.33	W	Chaondi Nadi	8.49	S	Garhi Bolni Distributary	10.10	W	Nikhari Distributary	10.91	NW	Sare Khurd Canal	10.89	ENE	Kheri Motla Distributary	12.76	WSW	Water Pond N/V Sare Khurd	13.10	E	Jitpur Distributary	13.64	NW	--									
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viii.	Existence of ESZ/ ESA/ national park/wildlife sanctuary/biosphere reserve/tiger reserve/ elephant reserve etc. if any within the study area	Study area: Nil List of Reserved and protected forests: Are given in the following table. <table border="1"> <thead> <tr> <th>Forests</th> <th>Distance(km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Banvan P.F.</td> <td>4.77</td> <td>E</td> </tr> <tr> <td>Khori Kalan P.F.</td> <td>5.90</td> <td>ESE</td> </tr> <tr> <td>P.F. Near Village Banvan</td> <td>5.68</td> <td>NE</td> </tr> <tr> <td>Guwalda P.F.</td> <td>7.48</td> <td>ESE</td> </tr> <tr> <td>Banvan P.F. Near Village Joriah</td> <td>7.75</td> <td>NE</td> </tr> <tr> <td>Gondhan P.F.</td> <td>7.71</td> <td>NE</td> </tr> <tr> <td>Chaupanki P.F.</td> <td>9.69</td> <td>E</td> </tr> <tr> <td>Indaur R.F.</td> <td>10.41</td> <td>E</td> </tr> <tr> <td>Khidarpur P.F.</td> <td>11.69</td> <td>SE</td> </tr> <tr> <td>Sare Kalan P.F.</td> <td>11.32</td> <td>E</td> </tr> <tr> <td>Bhalki P.F.</td> <td>13.05</td> <td>SSE</td> </tr> <tr> <td>Milakpur Turk P.F.</td> <td>13.06</td> <td>ESE</td> </tr> <tr> <td>Rangala R.F.</td> <td>13.18</td> <td>NE</td> </tr> </tbody> </table>				Forests	Distance(km)	Direction	Banvan P.F.	4.77	E	Khori Kalan P.F.	5.90	ESE	P.F. Near Village Banvan	5.68	NE	Guwalda P.F.	7.48	ESE	Banvan P.F. Near Village Joriah	7.75	NE	Gondhan P.F.	7.71	NE	Chaupanki P.F.	9.69	E	Indaur R.F.	10.41	E	Khidarpur P.F.	11.69	SE	Sare Kalan P.F.	11.32	E	Bhalki P.F.	13.05	SSE	Milakpur Turk P.F.	13.06	ESE	Rangala R.F.	13.18	NE	
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10.14.5 The existing project was accorded Consent to Establish [in case of not obtained EC] vide letter no. RPCB/RO/BWD/OR-755/301 dated 27.05.2006. The proposal has been applied first time for obtaining Environmental Clearance as previously the project of Rolling Mill was not covered under the purview of Environmental Clearance under EIA Notification 2006. (Secondary metallurgical processing industries with Production ≤60,000 TPA). Latest Consent to Operate (Latest) for the existing unit was accorded by Rajasthan State Pollution Control Board vide letter no. F(HDF)/Alwar(Tijara)/8(1)/2019-2020/3450-3453 dated 27.12.2019 The validity of CTO is up to 31.10.2022.

10.14.6 Implementation status of the existing CTE/CTO:

CTO & CTE	CAPACITY	Letter No.	Validity Period
CTE for Manufacturing of HSDBars	1,20,000 TPA	RPCB/RO/BWD/OR/-750/301	Date of Issue 27.05.2006
CTO for Manufacturing of HSDBars	1,20,000 TPA (400 MTPD)	RPCB/RO/BWD/OR/-750/1416	20.09.2007-31.10.2009
CTO for Manufacturing of HSDBars	1,20,000 TPA (400 MTPD)	F(CPM)/Alwar(Tijara)/28(1)/2012-2013/1772-1774	1.11.2011-31.10.2014
CTE for GASIFIER UNIT FOR HEATING FURNACE	1.95 TPH	F(CPM)/Alwar(Tijara)/28(1)/2012-2013/2386-2388	17.01.2013 to 31.12.2015
CTO for Manufacturing of HSDBars	1,20,000 TPA (400 MTPD)	F(CPM)/Alwar(Tijara)/28(1)/2012-2013/6816-6819	01.11.2014 To 31.10.2017 .
CTE for DG Set	120KVA	F(CPM)/Alwar(Tijara)/28(1)/2012-2013/6570-6572	03.03.2016 To 28.02.2019
CTO for DG Set	120KVA	F(CPM)/Alwar(Tijara)/28(1)/2012-2013/6573-6575	03.03.2016 To 28.02.2019
CTE for DG Set & 3 No.s of Coal Pulverizers	Dg Set-350KVA	F(HDF)/Alwar(Tijara)/8(1)/2019-2020/3446-3449	27.11.2017 To 31.10.2022
CTO for M.S Steel bars	1,20,000 TPA (400 MTPD)	F(HDF)/Alwar(Tijara)/8(1)/2019-2020/3450-3453	01.11.2017 To 31.10.2022

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

S. No.	Product	Existing Capacity (MTPA)	Total Capacity (MTPA)
1.	MS CTD/TMT Bars & MS Round	1,20,000 MTPA (400TPD)	1,20,000 MTPA (400TPD)

		(Installed Capacity- 2,40,000 MTPA)	(Installed Capacity- 2,40,000 MTPA)
2.	Re-Heating Furnace	25 Ton/Hr	25 Ton/Hr

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

S. No.	Raw Material	Existing	Total	Source	Mode of transport
		Consumption			
1	MS Billets	427.807MT/Day	427.807MT/Day	Local & Outside of the state	Transported by Trucks
2	Coal	18kg/Ton/day	18kg/Ton/day	Local	
3	Gas (PNG)	10000m ³ /day	10000m ³ /day	Local	

**Note : Coal to be discontinued in future. Machinery will run on PNG*

10.14.9 Existing one time Water requirement is 51m³/day, out of which 18 m³/day of fresh water requirement is being obtained from the ground water and permission for the same has been obtained from CGWA vide letter no. CGWA/NOC/IND/ORIG/2021/12103 dated 14.06.2021 & 3KLD fresh water is being obtained from RIICO water supply and the remaining 30 m³ /day is being met from the Recycling.

10.14.10 Existing power requirement of 4998kVA (11648KW Sanctioned capacity) is obtained from JVVNL, Alwar from nearest GSS of 220KV.

10.14.11 The capital cost of the project is Rs 50.85 Crores and the capital cost for environmental protection measures is proposed as Rs 0.61 Crores. The employment generation from the existing project is 197.

10.14.12 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. Project Proponent has submitted an undertaking dated 22nd June, 2022 stating that there is no court case / direction stipulated by Commission for Air Quality Management against the existing project.

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

Attributes& Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
A. Air Environment				
Meteorological Wind Speed Wind Direction Max. Temperature Min. Temperature	1-site area in the project impact area- site area	One hourly continuous	Mechanical/ Automatic Weather stations Max/ Min Thermometer	IS 5182 Part1-20 Site specific primary data is essential Secondary data

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
Relative Humidity Rain fall Solar radiation Cloud cover			Hygrometer Rain gauge As per IMD specifications	from IMD
Pollutants Pollutants PM ₍₁₀₎ PM _(2.5)	8 locations Including Site	24 hourly twice a week	As per CPCB Guidelines Gravimetric (High-Volume with Cyclone)	IS 11255(Part 1):1985
SO ₂			Improved West & Gaeke	IS 5182(Part 2):2001
NO _x			Modified Jacob Hochheiser	IS 5182(Part 6):1975
CO		8 hourly twice a week	NDIR Method	IS 5182(Part 10):1999
B. Noise				
Hourly equivalent noise levels	8 locations including Project site.	Frequency Once in season	Integrated Sound Level Measurement Instrument, DT - 805 issued by Mextech	IS: 4954-1968 as adopted by CPCB. CPCB/ OSHA CPCB/ IS:5954- 1968
Hourly equivalent noise levels	--	Once		
Hourly equivalent noise levels	Site	Once in season		
C. Water				
Parameters for water quality	8 locations Including Site	Once in season		
Colour (in hazen units)			Visual Method	IS : 3025 (P-4) 1983
Odour			Manual	IS : 3025 (P-5) 1983
Temperature °C			Thermometer	IS 3025(Part 9):1984
pH			pH meter	IS : 3025 (P- 11)1983
Turbidity (NTU)			Nephelometer	IS 3025(Part 10):1984
Total Dissolved Solids (mg/l)			Gravimetric	IS : 3025 (P-16) 1984
Biochemical Oxygen Demand (mg/l)			DO consumption in 3 days at 27°C	IS : 3025 (P-44) 1993

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
Carbonate as CaCO ₃ (mg CaCO ₃ /l)			Titrimetric	IS 3025(Part 51):2001
Coliform (No./100 ml)			MPN	IS : 5401
Fecal Coliform			MPN	IS : 5401
Sodium as Na (mg/l)			Flame photometry	IS 3025(Part 45):1993
Potassium as K (mg/l)			Flame photometry	IS 3025(Part 45):1993
Chloride as Cl (mg/l)			Argentometric titration	IS 15210(Part 0/Sec 0):2002/ ISO 8762
Nitrite (mg N/L)			Colorometry	
Chemical Oxygen Demand (mg/l)			Potassium dichromate method	
Magnesium (mg CaCO ₃ /l)			EDTA Titrimetric	IS 3025(Part 46):1994
Sulphate (mg/l)			Turbidimetry	IS 3025(Part 24):1986
D. Land Environment				
Soil Texture pH Electrical Conductivity Bulk density Porosity Total organic carbon N, P, K, Zinc, Cd Chloride, Alkali metal, permeability, Water holding capacity, Cu, Iron as Fe, Moisture content, Boron as B	8 sample from project sit as well as nearby agriculture land.(soil samples has been collected as per BIS specifications)	Season wise	Collected and analyzed as per soil analysis reference book, M.I. Jackson and soil analysis reference book by C.A. Black	Once in a year.
Land use/ Landscape Location code Total project area		--	Global Positioning System	

Attributes & Parameters	Sampling		Measurement Method	Protocol												
	No. of stations	Frequency														
Topography Drainage (Natural) Cultivated, forest, plantations, water bodies, roads and settlements			Toposheet (1:50,000) Satellite Imagery* (1:50,000)													
E. Biological Environment																
<table border="1"> <tr><td>Plants</td></tr> <tr><td>Butterflies</td></tr> <tr><td>Amphibians</td></tr> <tr><td>Reptiles</td></tr> <tr><td>Birds</td></tr> <tr><td>Mammals</td></tr> </table>	Plants	Butterflies	Amphibians	Reptiles	Birds	Mammals	--	Three- five days in each months	<table border="1"> <tr><td>Quadrates sampling/ enumeration/ survey methods</td></tr> <tr><td>Transect method/ Visual encounter survey</td></tr> <tr><td>Visual encounter survey/ Opportunistic survey</td></tr> <tr><td>Visual encounter survey/ Opportunistic survey</td></tr> <tr><td>Point count/ Opportunistic survey</td></tr> <tr><td>Tracks / signs and visual encounter survey</td></tr> </table>	Quadrates sampling/ enumeration/ survey methods	Transect method/ Visual encounter survey	Visual encounter survey/ Opportunistic survey	Visual encounter survey/ Opportunistic survey	Point count/ Opportunistic survey	Tracks / signs and visual encounter survey	Preliminary assessment point quarter plot-less method for terrestrial vegetation survey
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Reptiles																
Birds																
Mammals																
Quadrates sampling/ enumeration/ survey methods																
Transect method/ Visual encounter survey																
Visual encounter survey/ Opportunistic survey																
Visual encounter survey/ Opportunistic survey																
Point count/ Opportunistic survey																
Tracks / signs and visual encounter survey																
Fauna, Avian fauna, Rare and endangered species Sanctuaries/ National park/ Biosphere reserve/ Migratory routes.	--	--	--	Secondary data to be collected from Government offices, NGO's published literature.												
F. Socio-Economic Environment																

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
Demographic structure infrastructure resource base Economic resource base health status: Occupation pattern cultural and aesthetic attributes education	Socio- Economic observation will be based on random sampling method with access to the nearest habitation to the extent possible.	One site visit and prior to the final submission of the project.	Primary data collection through questionnaire and interviews	Secondary data from census records, statistical hand-books, toposheets, health records and relevant official records available in public domain.

Deliberation by the Committee

10.14.14 The Committee noted the following:

- i. The instant proposal is for Regularization of the existing project of Rolling Mill having capacity of MS Steel Bars(HSD) of 1,20,000 MTPA (400TPD)(Installed Capacity 2,40,000MTPA),Re- Heating Furnace – 25TPH.
- ii. The proposal is for regularization of existing unit in compliance of MoEF&CC letter no. F. No. - IA-J-11013/24/2022-IA-II(I) dated 13.04.2022 to Rajasthan State Pollution Control Board and order of Hon'ble National Green Tribunal in O.A. no. 55/2019(WZ) in matter of Gajubha Jesar Jadeja vs Union of India & Ors. dated 12.02.2020 & Letter no. F. No. - IA-J-11013/24/2022-IA-II(I) dated 13.04.2022.
- iii. The EAC deliberated on the proposal. Based on the KML file presented by the PP, the proposed Unit is brown field project and the project was operational based on the CTE/CTO obtained from the State Pollution Control Board.
- iv. The EAC noted that the instant project comes under Critically Polluted Area (CPA). PP has committed the proposed mitigation measures and detailed action plan to be submitted in the EIA/EMP Report and documents submitted in Form 1.
- v. The Commission for Air Quality Management in National Capital Region and Adjoining Areas is opinion that air pollution is generated in the reheating furnaces of the Steel rolling mills and therefore made compulsory the use of clean fuel to control air pollution and improve air quality. Commission has issued various direction in GNCTD & NCR to switch over on PNG/LSHS (Low Sulphur Heavy Stock) by 30.09.2022.
- vi. The Ministry has issued a notification on 20th July 2022 and directed that all the standalone re-rolling units or cold rolling units, which are in existence and in operation as on the date of this notification, with valid CTE and CTO from the concerned SPCB/PCC, shall apply online for grant of Terms of Reference (ToR) followed by Environment Clearance and the said units shall be granted Standard Terms of Reference and shall be exempted from the requirement of public consultation, Provided that the application for the grant of ToR shall be made within a period of one year i.e. up to 19th July 2023.

- vii. The EAC also noted that the instant project is located at a distance of 2.92 Km, N Interstate boundary of Rajasthan & Haryana, hence PP has applied at the Central level as a Category 'A' project for obtaining EC under the provisions of the EIA Notification, 2006.
- viii. The existing greenbelt is 2.70%. About 37.30% green area will be developed by the proponent in consent with RIICO Office. The rest 37.30% area will be planted outside the plant premises along the park of RIICO industrial area in the impact zone of the project.
- ix. Project Proponent has submitted an undertaking dated 22nd June, 2022 stating that there is no court case / direction stipulated by Commission for Air Quality Management against the existing project.

Recommendations of the Committee

10.14.15 After deliberations, the Committee **recommended** the project proposal for prescribing following **specific ToRs** for undertaking detailed EIA and EMP study, in addition to the generic ToRs enclosed at **Annexure-3 read with additional ToRs at Annexure-2:**

- (i) The implementation on the Direction issued by the Commission for Air Quality Management in National Region and Adjoining Areas.
- (ii) The implementation of the Action Plan/Mitigation measures as prescribed for the CPA, as the Unit is located in CPA.
- (iii) In compliance to Ministry's Notification vide S.O. 3250(E) dated 20th July, 2022, all the standalone re-rolling units or cold rolling units, which are in existence and in operation as on the date of this notification, with valid Consent to Establish (CTE) and Consent to Operate (CTO), applying for ToR within a period of one year i.e. up to 19th July 2023 shall be exempted from the requirement of public consultation. Therefore, in this case Public Consultation is exempted.
- (iv) The industry shall use CETP treated waste water for industrial processes to reduce the stress on Ground water resource as and when made available, accordingly the PP will incorporate the water balance in the EIA/EMP Report.
- (v) Ground water shall be abstracted only for the domestic water demand (drinking purpose only). PP shall explore the possibility of shifting to alternative source of water to meet the water requirement needs.
- (vi) The industry shall use PNG gas as per direction no. 64 of the Commission for Air Quality Management in National Region and Adjoining Areas by 30.09.2022.
- (vii) The Sahibi River exists nearby of the project site. The PP shall submit the suitable steps /conservation plan along with contouring, Run -off calculations, disposal etc. As a river exist nearby of the project area, so a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided.
- (viii) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.
- (ix) Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. PP shall submit an action plan for gradual

phasing out of ground water consumption and switching to alternative source of water.

- (x) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- (xi) PP should submit action plan for rainwater harvesting.
- (xii) Action plan for 100 % solid waste utilization shall be submitted.
- (xiii) Project proponent shall prepare layout plan showing all internal roads minimum 6m width and 9m turning radius with proper looping for smooth traffic flow, including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing.
- (xiv) Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.
- (xv) Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.
- (xvi) As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.
- (xvii) Action plan to limit the dust emission from all the stacks below 30 mg/Nm³ shall be furnished.
- (xviii) Action plan for fugitive emission control in the plant premises shall be provided.
- (xix) Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
- (xx) An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in atleast 40% of total area with a tree density of not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years.
- (xxi) An action plan for the disposal of electronic waste must be drawn up and implemented.

Modification of ToR Proposal

Agenda No. 10.15

- 10.15 Proposed integrated Ferro Alloy & Steel complex including 2x65 MW Captive coal based power plant and 12000 TPA Sodium Saccharin Plant at Sy. No's. 82, 82/ ?/1, 87/2, 87/3, 88/2, 88/3, 115/1/2, 115/7, Wadapally village & Sy.No's 111/?/1, 129/?/1, 147/3, 154/1, 161/14, Of Irikigudem village, Dhamarcharla Mandal, Nalgonda district of Telangana by M/s Krishna Godavari Power Utilities Limited- Consideration of modification of TOR**

[Proposal No. IA/TG/IND/282896/2022; File No. J-11011/245/2020-IA.II(I)]

- 10.15.1** M/s Krishna Godavari Power Utilities Limited made an application online *vide* proposal no. IA/TG/IND/282896/2022 dated 11.07.2022 along with Form 3, revised Form-1 and revised PFR seeking amendment in Terms of Reference accorded by the Ministry *vide* letter no. J-11011/245/2020-IA.II(I), dated 15.12.2020.
- 10.15.2** The project proponent has proposed for the following amendment in ToR dated 15.12.2020 w.r.t. Reorganization of Revenue survey numbers of the project site and reduction in project area as detailed below:

Reference of Approved ToR dated 15.12.2020	Description as per approved ToR dated 15.12.2020	Description as per proposed amendment	Justification submitted by the PP
Para 5, Page 2	Survey No;s 29/1, 29/2, 147, 155, 152, 153, 154, 82, 89, 90, 91/1, 91/2, 92, 88, 83, 84, 85, 86, 87, 88, 115/1, 130. 114, 118	Sy. No's. 82, 82/ □/1, 87/2, 87/3, 88/2, 88/3, 115/1/2, 115/7, Wadapally village & Sy.No's 111/□/1, 129/□/1, 147/3, 154/1, 161/14, Of Irikigudem village	Govt. of AP GO no. 92 dated 11.02.1997 (combined State) has allocated 150.30 Gunta acres of land for main plant area falling in survey no. 115 & 82 in Wadapally village and Survey no. 129, 147 and 154 in Irikigudem village. Additional land of 20 acres of patta land has been purchased The survey numbers have been split into sub survey no's due to reorganization. Right of Way survey no. have been deleted. 355176.611E, 1844651.052N – No change in location
Para 5 (Page 2) & Para 12, point ii,	74.2 Ha (178.8 acres)	69.23 Ha (171 Acres) including 10.5 acres for Sodium Saccharine plant	Reorganization of Revenue survey numbers.

Reference of Approved ToR dated 15.12.2020	Description as per approved ToR dated 15.12.2020	Description as per proposed amendment	Justification submitted by the PP
(Page 3)			

10.15.3 Reason for Amendment: Govt. of AP, vide GO no. 92 dated 11.02.1997 (combined State) has allocated 150.30 Gunta acres of land for main plant area falling in survey no. 115 & 82 in Wadapally village and Survey no. 129, 147 and 154 in Irikigudem village. Additional land of 20 acres of patta land has been purchased. The survey numbers have been split into sub survey no's due to reorganization. Right of Way survey no. have been deleted. 355176.611E, 1844651.052N – No change in location Reorganization of Revenue survey numbers.

10.15.4 Project Proponent reported that there is no change in configuration and capacity of the proposed project.

Deliberation by the Committee

10.15.5 The Committee noted the following:

- i. The EAC noted that Terms of Reference was accorded by the Ministry vide letter no. J-11011/245/2020-IA.II(I) dated 15.12.2020.
- ii. The instant proposal is for amendment in ToR dated 15.12.2020 w.r.t. Reorganization of Revenue survey numbers of the project site and reduction in project area as detailed in para 10.15.2 above.
- iii. Project Proponent reported that Govt. of AP GO no. 92 dated 11.02.1997 (combined State) has allocated 150.30 Gunta acres of land for main plant area falling in survey no. 115 & 82 in Wadapally village and Survey no. 129, 147 and 154 in Irikigudem village. Additional land of 20 acres of patta land has been purchased. The survey numbers have been split into sub survey no's due to reorganization. Right of Way survey no. have been deleted. 355176.611E, 1844651.052N – No change in location Reorganization of Revenue survey numbers.
- iv. The EAC also noted that during the meeting the project proponent made an additional request for change of company name from M/s. Krishna Godavari Power Utilities Limited to M/s Krishna Power Utilities Limited in the aforesaid TOR dated 15.12.2020 as per the Certificate of Incorporation obtained from Govt. of India, Ministry of Corporate Affairs dated 7th June 2022. In this regard, the it was appraised to the Committee and the Project Proponent that Ministry has laid down a separate procedure for transfer of TOR/EC and Project Proponent has to apply on PARIVESH for transfer of ToR in this case. The EAC agreed and advised the project proponent to apply for transfer/ change of company name in ToR dated 15.12.2020 as per the procedure laid down by the Ministry.

Recommendations of the Committee

10.15.6 After deliberations, the Committee **recommended** the project proposal for amendment in Terms of Reference no. J-11011/245/2020-IA.II(I) dated 15.12.2020 with respect to Reorganization of Revenue survey numbers of the project site and reduction in project area as detailed in para 10.15.2 above.

DAY-3: AUGUST 3, 2022 [WEDNESDAY]

Consideration of Environmental Clearance Proposals

Agenda No. 10.16

10.16 Greenfield Project 3.85 MTPA throughput Iron Ore Beneficiation and 2.0 MTPA Pellet Plant with Producer Gas Plant (5 x 15000 Nm³/hr) by M/s. Orissa Sponge Iron & Steel Limited located at Palaspanga (Spongepatna), District- Keonjhar, Odisha – Environment Clearance – regarding.

[Proposal No. IA/OR/IND/113418/2019; File No. IA-J-11011/275/2019-IA-II(I)]

[Consultant: Visiontek Consultancy Services Private Limited; valid upto 19.12.2023]

10.16.1 M/s. Orissa Sponge Iron and Steel Limited, has made an online application vide proposal no. IA/OR/IND/113418/2019 dated 13.07.2022 along with copy of EIA/EMP report and Form-2 seeking Environmental Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 2 (b), Mineral Beneficiation and 3 (a) Metallurgical industries (Ferrous & non-ferrous) under Category “A” of the schedule of the EIA notification, 2006 and appraised at Central level.

10.16.2 Name of the EIA consultant: M/s. Visiontek Consultancy Services Private Limited [S.No. 100, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/RA 0209 valid till 16.12.2023; Rev. 24, July 05, 2022].

Details submitted by Project proponent

10.16.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
16/08/2019	11 th meeting of REAC held on 24-25 th September, 2019	Terms of Reference	24/10/2019	23/10/2023

10.16.4 The project of M/s. Orissa Sponge Iron and Steel Ltd located at Village -Palaspanga, Tehsil- Kedhujhar Sadar, District- Keonjhar, Odisha is for setting up of greenfield project - 3.85 MTPA throughput Iron Ore Beneficiation and 2.0 MTPA Pellet Plant with Producer Gas Plant (5 x 15000 Nm³/hr).

10.16.5 Environmental Site Settings:

S No	Particulars	Details	Remarks
i.	Total land	Total Land: 64.18 ha [Gov. Land]	Land use: Industrial Land

S No	Particulars	Details	Remarks																		
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Acquired Land: 64.18 ha.	-																		
iii.	Existence of habitation & involvement of R&R, if any.	There is no existence of habitants identified within the plant boundary. Hence no R&R.	-																		
iv.	Latitude and Longitude of the project site	Corner	Latitude (N)	Longitude (E)	-																
		1	21°47'19.89"N	85°34'9.67"E																	
		2	21°47'26.18"N	85°34'19.62"E																	
		3	21°47'29.96"N	85°34'29.04"E																	
		4	21°48'4.78"N	85°34'41.76"E																	
		5	21°48'9.07"N	85°34'35.94"E																	
		6	21°48'8.51"N	85°34'31.23"E																	
		7	21°47'57.43"N	85°34'29.82"E																	
8	21°47'57.22"N	85°34'16.68"E																			
v.	Elevation of the project site	428 m - 457 m AMSL	-																		
vi.	Involvement of Forest land if any	Nil The related Tangarani RF was de-reserved prior to FC-Act 1980, vide notification No 972/80 dated 07.10.1980 by concerned department of Govt. of Odisha.	-																		
vii.	Water body exists within the project site as well as study area	Project Area: Nil Study Area: <table border="1"> <thead> <tr> <th>Water body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Water reservoir, Jhumpura</td> <td>1.65 Km</td> <td>N</td> </tr> <tr> <td>Tangrani Dam</td> <td>1.66 Km</td> <td>NE</td> </tr> <tr> <td>Ardei River</td> <td>2.1 Km</td> <td>SW</td> </tr> <tr> <td>Jokdara River</td> <td>3.56 Km</td> <td>W</td> </tr> <tr> <td>Jagadala Reservoir</td> <td>9.63 Km</td> <td>W</td> </tr> </tbody> </table>	Water body	Distance	Direction	Water reservoir, Jhumpura	1.65 Km	N	Tangrani Dam	1.66 Km	NE	Ardei River	2.1 Km	SW	Jokdara River	3.56 Km	W	Jagadala Reservoir	9.63 Km	W	As per the records of WRD, Govt. of Odisha, HFL of Ardei river near proposed plant site is at 407.864 m at Cross drainage work of Kanupur Main canal Crossing of Ardei River. Letter from Superintending Engineer, Baitarini Irrigation Division, Keonjhar dated 26.05.2022 is submitted
Water body	Distance	Direction																			
Water reservoir, Jhumpura	1.65 Km	N																			
Tangrani Dam	1.66 Km	NE																			
Ardei River	2.1 Km	SW																			
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Jagadala Reservoir	9.63 Km	W																			
viii.	Existence of ESZ/ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil Reserved Forest (RF) In Study Area <ul style="list-style-type: none"> • Tangrani RF-Adjacent, W • Raikala RF- 1.28 Km, E • Nayagarh RF- 6.0 Km, E • Jodipada RF-6.0 Km, SE • Lakshmiposi RF- 8.30 Km, NE 	-																		

S No	Particulars	Details	Remarks
		• Patabila RF- 8.80 Km, N	

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

Sl. No.	Plant Equipment/Facility	Proposed Units	
		Configuration	Capacity
1	Iron Ore Beneficiation Plant	3.85 MTPA Throughput	38,50,000 TPA Throughput (Beneficiated ore - 25,00,000 TPA)
2	Iron Ore Pellet Plant	1 x 2.0 MTPA	20,00,000 TPA
3	Producer Gas Plant	(5X15000 Nm ³ /hr)	75000 Nm ³ /hr

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

Sr. No	Raw material	Quantity (TPA)	Source	Distance	Mode of Transportation
1.	Iron Ore Fines	38,50,000	Nearby Iron Ore Mines of Keonjhar, Joda & Barbil areas.	120 Km	By Rail & Road
2.	Coke Breeze	37,500	Open market/ JSL/ Visa Steel in Jajpur Area	150 Km	By Road
3	Bentonite	12,500	Rajasthan	1750 Km	By Road
4	Limestone/ Dolomite fines	25,000	Rourkela	200 KM	By Road
			Rourkela	200 KM	By Road
5	LDO	25,000 KL/year	Nearest Oil depot	15 Km	By Road
6	Coal	2,00,000	Open Auction MCL, SECL etc. having mines in Talcher & Sambalpur areas.	120 KM	By Road

10.16.8 The revised water requirement for the project is estimated as 1795.91 m³/day, will be met from the Ardei River. The permission for drawl of surface water is obtained from Department of Water Resource, Govt. of Odisha, vide Lr. No. 21386/WR, dated 24/08/2021.

10.16.9 The power requirement for the project is estimated as 32 MW, out of which 15 MW will be obtained from GRIDCO. The remaining 17MW power demand will be fulfilled by importing from OTPCL/TPNDO by enhancing the power import agreement to match the total plant electrical load prior to commissioning of plant.

10.16.10 Baseline Environmental Studies:

Period	March-May 2021

Period	March-May 2021																																																							
AAQ parameters at 9 locations	<ul style="list-style-type: none"> • PM_{2.5} = 23.1 to 49.0 µg/m³ • PM₁₀ = 42.6 to 88.7 µg/m³ • SO₂ = 9.1 to 21.4 µg/m³ • NO₂ = 15.7 to 30.7 µg/m³ • CO = 0.16 to 0.63 mg/m³ 																																																							
AAQ modelling (Incremental GLC)	<ul style="list-style-type: none"> • PM₁₀ = 1.47 µg/m³ at 0.4 Km NW • PM_{2.5} = 0.984 µg/m³ at 0.4 Km NW • SO₂ = 1.56 µg/m³ at 0.4 Km NW • NO₂ = 2.31 µg/m³ at 0.4 Km NW 																																																							
Ground water quality at 8 locations	pH: 6.4 to 7.5, Total Hardness: 92 to 379 mg/l, Chlorides: 13 to 120 mg/l, Fluoride: 0.1 to 0.5 mg/l. Heavy metals are within the limits																																																							
Surface water quality at 8 locations	pH: 7.2 to 8.0; DO: 4.6 to 5.8 mg/l and BOD: 2 to 2.8 mg/l. COD from 12.0 to 32.0 mg/l																																																							
Noise levels	Ambient noise reaches 47.9 to 53.7 dB(A) during day time and 37.0 to 42.3 dB(A) during night time.																																																							
Traffic assessment study findings	<p>Traffic study has been conducted at 3 locations. Near entry gate of project site (NH-20) adjacent to plant boundary, Jhumpura Chakk (NH-20) at a distance of 3.30 km from the project site, Near OSISL Old Plant (MDR) at a distance of 0.30 KM from project site.</p> <p>Transportation of raw material, fuel & finished product will be done 100 % by road.</p> <p>Existing PCU details is given below-</p> <table border="1"> <thead> <tr> <th>Sl No.</th> <th>Study Location</th> <th>Details</th> <th>Volume (PCU/hr)</th> <th>*Capacity (PCU/hr)</th> <th>Existing V/C ratio</th> <th>**Level of Service (LOS)</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1.</td> <td rowspan="2">Near entry gate of project site</td> <td>Average Hour Load</td> <td>1187</td> <td>3600</td> <td>0.32</td> <td>B</td> </tr> <tr> <td>Peak Hourly Load</td> <td>1605</td> <td>3600</td> <td>0.44</td> <td>C</td> </tr> <tr> <td rowspan="2">2.</td> <td rowspan="2">Near OSISL plant road</td> <td>Average Hour Load</td> <td>715</td> <td>1500</td> <td>0.47</td> <td>C</td> </tr> <tr> <td>Peak Hourly Load</td> <td>990</td> <td>1500</td> <td>0.66</td> <td>D</td> </tr> <tr> <td rowspan="2">3</td> <td rowspan="2">Jhumpura Chakk</td> <td>Average Hour Load</td> <td>1191</td> <td>3600</td> <td>0.33</td> <td>B</td> </tr> <tr> <td>Peak Hourly Load</td> <td>1774</td> <td>3600</td> <td>0.49</td> <td>C</td> </tr> </tbody> </table> <p style="text-align: right;">IRC 106:1990</p> <p>Additional PCU load after proposed project will 69 PCU/hr.</p> <table border="1"> <thead> <tr> <th>Sl No.</th> <th>Study Location</th> <th>#Volume after Proposed project (PCU/hr)</th> <th>*Capacity (PCU/hr)</th> <th>V/C ratio after Proposed project</th> <th>**Level of Service (LOS)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Sl No.	Study Location	Details	Volume (PCU/hr)	*Capacity (PCU/hr)	Existing V/C ratio	**Level of Service (LOS)	1.	Near entry gate of project site	Average Hour Load	1187	3600	0.32	B	Peak Hourly Load	1605	3600	0.44	C	2.	Near OSISL plant road	Average Hour Load	715	1500	0.47	C	Peak Hourly Load	990	1500	0.66	D	3	Jhumpura Chakk	Average Hour Load	1191	3600	0.33	B	Peak Hourly Load	1774	3600	0.49	C	Sl No.	Study Location	#Volume after Proposed project (PCU/hr)	*Capacity (PCU/hr)	V/C ratio after Proposed project	**Level of Service (LOS)						
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Sl No.	Study Location	#Volume after Proposed project (PCU/hr)	*Capacity (PCU/hr)	V/C ratio after Proposed project	**Level of Service (LOS)																																																			

Period	March-May 2021					
	1	Near entry gate of project site	1674	3600	0.46	C
	2	Near OSISL plant road	1059	1500	0.70	D
	3	Jhumpura Chakk	1843	3600	0.52	C
	<p>*IRC 106:1990 # Considering peak hour traffic at the three locations. Conclusion: The level of service will remain same after including additional traffic due to proposed project.</p>					
Flora & Fauna	<p>The Sloth Bear & Elephant are the Schedule I species found in the study Area.</p> <p>Previously, the wildlife Conservation plan had been prepared by Visiontek Consultancy Services Pvt. Ltd. and submitted to DFO, Keonjhar dated 11th Oct. 2021, Keonjhar for approval. But, in lieu of revised guidelines vide memo number 3337/CWLW-FDWC-MISC-00282021 dated 16th April 2022 by Office of the PCCF (Wildlife) & Chief Wildlife Warden, Odisha, Wildlife conservation Plan shall be prepared at DFO level.</p> <p>Present status of WLCP: Under consideration at DFO level.</p>					

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

Sl. No	Type of wastes	Source	Quantity (TPA)	Treatment before Disposal	Mode of Disposal	Agreement Details for Disposal
1	Tailings	Beneficiation Plant	13,50,000	Filter Press	Disposed to outside parties for use in cement plants in Jajpur area- M/s. Chettinad Cement Corporation Private Limited & Jajpur Cements Private Limited & brick manufacturing/ landfill/ Construction fillings in nearby areas	Agreement will be done after getting statutory clearances

Sl. No	Type of wastes	Source	Quantity (TPA)	Treatment before Disposal	Mode of Disposal	Agreement Details for Disposal
2	Fines	Pellet Plant	1,02,480	-	Will be recycled in pellet plant along with concentrate	-
3	Ash	PGP	60000	Ash Conditioning	Supplied to fly ash bricks/blocks manufacturers M/s. Lucky Fly Ash Bricks & Paver Blocks/ M/s. Ramamani Ecobrick Tech in Keonjhar area.	Agreement will be done after getting statutory clearances
4	Tar	PGP	7000	-	Sold to Authorize Tar Processing Vendors by SPCB	Agreement will be done after getting statutory clearances
5	Used Oil	Transformers	6 KLA	-	Storage in containers over the concrete floor under-ventilated covered shed followed by sale to actual users/Recyclers/Re-processors having valid authorization from SPCB, Odisha or disposed to TSDF.	
6	Wastes/ Residues Containing Oil	Plant machineries	3 KLA	-		
7	Phenolic water	PGP	10 KLD	ETP	To be treated in ETP system of Gasifier Unit & will be recycled.	-

10.16.12 Public Consultation:

Details of advertisement given	05/03/2021
Date of public consultation	15/04/2021
Venue	Village- Murusuan, Khata No. 13 (Rakhit), Plot no. 986) of Palaspanga

	Gram Panchayat of Keonjhar District.
Presiding Officer	Additional District Magistrate, Keonjhar
Major issues raised	Education, Health, Drinking water, Environment, Livelihood

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

S. No.	Major activities	Physical targets	Year Wise Proposed CER Budget (Rs. In Lakhs)			Total Amount (Rs. In Lakhs)	Total Physical Targets
			1st Year	2nd Year	3rd Year		
A	Education						
1	High School Transformational Project (smart class, science lab, etc.) partnering with Govt. of Odisha flagship project under Mo School Abhiyaan or Madhyamik Shikshya Abhiyan	Each School Shall be provided with the following- a) 6 nos. of Computers with Table & Chair @ Rs. 52,500/- b) 1 nos of AC (2 Ton) with inverter & in-build stablizer @ Rs. 65,000/- c) 2 nos. of Digital Classroom with Projector, digital interactive whiteboard systems, and its teaching software building blocks for digitally connected classroom. and facilities @ Rs. 1,20,000/-. (4 High Schools at Murusuan, Palasapanga, Saraskela & Spongepatna within the 2 KMs shall be supported)	0.0	10.0	10.0	20.0	4 Schools
4	Organising School level competition (Quiz, Drawing, Slogan, etc on various issues)	Each year, 4 school level @ Rs. 25,000/- & 1 GP level Competition @ Rs. 1,50,000/- shall be organised for a period of 3 years. 28 High schools within 26 Villages within 5 KMs buffer zone shall taken-up.	2.5	2.5	2.5	7.5	15 Competitions
5	Improvement in basic amenities & teaching learning materials in Anganwadi center (AWC)	Each year 02 AWCs shall be supported per year. Each AWC shall be provided with - a) Abacus with Teaching Learning Material and Furnitures @ Rs. 50,000/- b) Painiting and infrastruture Development with Drinking Water facility and Utensils @ Rs. 50,000/- The AWCs in Palanspanga, Mangalapasi, Jamupasi, Naugaon, Spongepatna & Saraskela shall be supported)	2.0	2.0	2.0	6.0	6
6	Financial Support to Children with single parent or Orphans for	For the period of 3 years, 15 Children will be supported.	5.4	5.4	5.4	16.2	15

S. No.	Major activities	Physical targets	Year Wise Proposed CER Budget (Rs. In Lakhs)			Total Amount (Rs. In Lakhs)	Total Physical Targets
			1st Year	2nd Year	3rd Year		
	Education (Death due to Covid-19 or Scholarship for Merit Students (Above Matriculation for completing Graduation))						
7	Bridge Course Centre (For Drop-Out and Never Enrolled Children)	2 Bridge Course Centre shall be operationalized to develop skill of Drop-out children to re-enroll in schools at Palaspanga & Jamupasi Village. For Each Bridge Course Centre a) Development of Classroom with Furnitures and Whiteboard @ Rs. 60,000/- b) Book & Notebooks @ Rs. 1,20,000/- (For 30 Drop-out Students @ Rs. 4,000/-)	0.0	3.6	3.6	7.2	2
	Sub Total		9.9	23.5	23.5	56.9	
B	Health						
1	Setting up a Dispensary	Setting up a Dispensary at Palaspanga serving local Community and Plant workers. a) Construction of Building @ Rs. 7,00,000/- b) Basic Equipments @ Rs. 8,00,000/-	15.0	-	-	15.0	1
2	Operational Cost of the Dispensary (Free Doctor consultation and Generic medicine)	Operational Cost including honorarium of Doctor, Nurse, Staffs & Generic Medicines and COVID-19 testing kits of the Dispensary for 3 years	12.0	12.0	12.0	36.0	3
3	Ambulance	1 Ambulance serving the peripheral villages to be stationed at the Dispensary of OSISL	10.0	2.8	2.8	15.5	1
4	Health Camps in Surrounding Villages	4 Camps in a Year concluding the total 12 Camps. Villages of Palaspanga GP & Jhumpara GP shall be supported	8.0	8.0	8.0	24.0	12
	Sub Total		45.0	22.8	22.8	90.5	
C	Drinking Water						
1	Purified Drinking Water Facility at Public Places	In total 3 nos of Purified Drinking Water shall be installed at strategic public locations. Each Facility shall have a purifier machine of Rs. 5,00,000/- and Civil Construction shall be of Rs. 6,00,000/-	11.0	11.0	11.0	33.0	3
2	Community based RO	Every year 3 Nos. of RO Plant	10.0	10.0	10.0	30.0	3

S. No.	Major activities	Physical targets	Year Wise Proposed CER Budget (Rs. In Lakhs)			Total Amount (Rs. In Lakhs)	Total Physical Targets
			1st Year	2nd Year	3rd Year		
	Plant	shall be installed considering Contamination of Drinking Water					
	Sub Total		21.0	21.0	21.0	63.0	
D	Environment						
1	Rain Water Harvesting in Govt. Schools and Govt. Institutions	50 Schools or Govt. offices or Govt. Institution shall be covered within 2 years i.e. 25 per year. The 50 nos shall be concluded from the 38 Upper Primary & 28 High schools within 5 KM buffer zone shall be considered.	0.0	13.8	13.8	27.5	50
2	Plantation/Afforestation Drive (including sampling and protection like tree guard etc)	60 Schools or Govt. offices or Govt. Institution shall be covered within 3 years with approximately 15000 Sampling (250 sampling per Institution). The 50 nos shall be concluded from the 38 Upper Primary & 28 High schools within 5 KM buffer zone shall be considered.	5.0	5.0	5.0	15.0	60
	Sub Total		5.0	18.8	18.8	42.5	
E	Livelihood						
1	Promotion of Income Generation Activities- Tailoring & embroidery etc	100 interested women beneficiaries within 10 SHG members of neighbouring GP shall be trained within 2 years i.e. 5 Group with 10 member in each group shall be trained every year. The Villages of Palaspanga (11 nos), Parjangpur (12 Nos), Raikala (7 nos) within the bufferzone of 5 KMs shall be taken-up.	0.0	7.5	7.5	15.0	100
2	Promotion of Income Generation Activities- Mushroom Cultivation, NTFP, Kitchen Garden, Leaf plate, Pickle etc.	100 interested women beneficiaries within 10 SHG members of neighbouring GP shall be trained within 2 years i.e. 5 Group with 10 member in each group shall be trained every year. The Villages of Palaspanga (11 nos), Parjangpur (12 Nos), Raikala (7 nos) within the bufferzone of 5 KMs shall be taken-up.	0.0	7.5	7.5	15.0	100
3	Farmers input support for improving the yield for better return	150 interested and selective farmers shall be provided with inputs for 3 years. The Villages of Palaspanga (11 nos), Parjangpur (12 Nos), Raikala (7	5.0	5.0	5.0	15.0	250

S. No.	Major activities	Physical targets	Year Wise Proposed CER Budget (Rs. In Lakhs)			Total Amount (Rs. In Lakhs)	Total Physical Targets
			1st Year	2nd Year	3rd Year		
		nos) within the bufferzone of 5 KMs shall be taken-up.					
4	Setting up a Community Centre-cum-Training Centre	1 Community Centre cum Training Centre shall be constructed at Palaspanga Village	10.0	0.0	0.0	10.0	
	Sub Total		15.0	20.0	20.0	55.0	
	GRAND TOTAL		95.9	106.1	106.1	307.9 308 (Say)	

10.16.13 The capital cost of the project is Rs 500 Crores and the capital cost for environmental protection measures is proposed as Rs 12 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 1.11 Crores. The employment generation from the proposed project is 350. The details of cost for environmental protection measures is as follows:

S. No.	Particulars	Estimated Capital cost in Rs. Cr.	Recurring cost in Rs. Cr./annum
1.	Air Pollution Control	8.00	0.20
2.	Water Pollution Control	1.00	0.10
3.	Noise Pollution Control	0.50	0.015
4.	Environment Monitoring & Management	0.50	0.575
5.	Occupational Health	0.50	0.04
6.	EMS & Disaster Management	1.0	0.10
7.	Green Belt/plantation	0.50	0.08
Total		12.0	1.11
Addressal of Public Consultation		3.08 Crores	

10.16.14 Greenbelt will be developed in 21.18 ha which is about 33% of the total project area. A 2x2 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 34,145 saplings will be planted and nurtured in 21.18 Ha in 5 years.

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

10.16.16 M/s. Orissa Sponge Iron and Steel Limited had initially applied for EC online vide proposal no. IA/OR/IND/234285/2019 dated 15/11/2021. The proposal was considered during 49th meeting of the Re-constituted EAC (Industry-I) held on 16 – 17th December, 2021 wherein the Committee after detailed deliberations recommended to return the proposal due to technical

shortcomings. Further, the Committee warned the EIA consultant for submission of poor quality of EIA report and advised to improve upon the quality of EIA report.

10.16.17 The project proponent has again applied for EC online vide proposal no. IA/OR/IND/113418/2019 dated 13.07.2022 after addressing the technical shortcomings as below.

Sl. No.	Observations of EAC	Compliance
1.	On perusal of the KML file, some building structures are visible within the project site. Clarification is required to the provided by the PP regarding the same.	There are 55 number of RCC building structures within the site which was previously used as Staff Quarters of nearby existing Plant of M/s. OSISL, which is not in use now. Most of the building, i.e. 43 numbers will be retained and used for various purposes. There will be demolition of around 18 structures/buildings for setting up plant facilities. Total demolition waste from the site will be around 985 m3. Rest structures will be utilized as utility building, Office building, staff quarter etc.
2.	As observed on the Toposheet file, most of the project site appears to be forest area which needs to be clarified. However, according to the information submitted by proponent in Form 2 and EIA report, it has been stated that there is no involvement of forest land. PP needs to submit clarification in this regard from the State Forest Department by mentioning the legal status of the khasra numbers proposed for the green field project.	The land proposed for the project is a lease hold land duly leased by IDCO vide deed dated 27.09.1993. However, the clarification of status of land has been obtained from the Divisional Forest Officer, Keonjhar vide its letter number 2729 dated 15.04.2022. The forest area of 158.59 Acre involved in Tangarani RF was de-reserved vide notification No 972/80 dated 07.10.1980 by concerned department of Govt. of Odisha published in Odisha Gazette & published on 24.10.1980. The copy of the letter and the Gazette is submitted.
3.	PP submitted that out of 1374 total trees present at project site, 839 trees will be maintained as it is and 595 trees will be cut down after obtaining the approval from competent authority. Action plan to minimize the no. of trees to be felled down and the details regarding type of trees to be felled down has not been made available.	On the recommendation of the Hon'ble EAC PP has optimized the layout, and as result the number of tree cutting has been reduced from 595 to 298. The tree enumeration report is submitted and the revised plant layout is provided in EIA Report.
4.	PP submitted that HFL level of Ardei River is 450m, authenticated data with respect to HFL of Ardei River has not been made available.	As per the records of WRD, Govt. of Odisha, HFL of Ardei river near proposed plant site is at 407.864 m at Cross drainage work of Kanupur Main canal Crossing of Ardei River. Letter from Superintending Engineer, Baitarini Irrigation Division, Keonjhar dated 26.05.2022

Sl. No.	Observations of EAC	Compliance
		is submitted.
5.	Green belt is not in uniform all along the boundary of the project site. Time bound action plan shall be provided to develop the green belt uniformly all around the periphery of project site covering 33% of the total area.	As mentioned in the observation point No. 3 & 6 the layout has been optimized and as a result the greenbelt has been redistributed uniformly all along the periphery as well as with in the plant facilities and maintained the 33% of the total area. The revised plant layout and the revised greenbelt development plan is provided in EIA Report.
6.	Plant layout is highly congested and needs to be revised.	PP has rearranged the plant facilities and revised plant layout is provided in EIA Report.
7.	The environmental baseline data collected during March to May 2021 and earlier in March to May 2019, a comparative statement has not been provided for the study conducted during 2019 and 2021 along with the location of the sampling stations.	The comparative statement for the baseline data study conducted during 2019 and 2021 (Period March-May) is provided in EIA Report.
8.	Action plan to address issues raised during public hearing is not as per Ministry OM dated 30/09/2020. Revised action plan shall be provided accordingly.	The revised action plan to address the issues raised during Public Hearing as per the Ministry OM dated 30/09/2020 and is updated at para 10.16.12 above.
9.	Mitigation measures provide for the pollution control is given generic form, project specific mitigation measures with quantitative data has not been provided.	Revised project specific mitigation measures along with the design details of pollution control devices are provided in EIA Report.
10.	PP submitted that Phenolic water will be treated in ETP. Treatment methodology to be used in ETP has not been furnished.	Dedicated ETP system along with the Producer gas Plant is proposed and the treatment methodology in detail in EIA report
11.	No tailing pond is proposed. Details regarding management and disposal of iron ore tailings have not been made available. MOUs with Cement manufacturers for tailings utilization has not been submitted.	Tailing Storage yard of area 6.0 Acres is proposed and for the disposal of Tailings. MoUs have been signed with the Cement Manufacturers and are submitted.
12.	Quality of the EIA report is extremely poor and does not address the significant environmental concerns arising out of the proposed project.	-

10.16.18 Based on the above revised submission, the proposal is considered in the 10th meeting of the EAC for Industry-I sector held on 1-3rd August, 2022. The deliberations and recommendations made by the EAC are as follows:

Deliberations by the Committee

10.16.19 The Committee noted the following:

1. Instant proposal is for for setting up of greenfield project - 3.85 MTPA throughput Iron Ore Beneficiation and 2.0 MTPA Pellet Plant with Producer Gas Plant (5 x 15000 Nm³/hr).
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. Total land is 64.18 Ha which is under the possession of the company.
6. Tangarani Reserve forest is adjacent to the plant site. The forest area of 158.59 Acre involved in Tangarani RF was de-reserved vide notification No 972/80 dated 07.10.1980 by concerned department of Govt. of Odisha published in Odisha Gazette & published on 24.10.1980. The project site do not involve any forest land.
7. Ardei River, Jokdara River, Jhumpura Water reservoir, Tangrani Dam and Jagadala Reservoir exists within the study area of 10 km from the project site. The water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
8. The revised water requirement for the project is estimated as 1795.91 m³/day m³/day, will be met from Ardei River.
9. The project proponent submitted that Greenbelt will be developed in 21.18 ha which is about 33% of the total project area. Total no. of 34,145 saplings will be planted and nurtured in 21.18 Ha in 5 years. Total 298 number of trees has to be cut for establishing

plant facilities. Around 839 trees present along the boundary of the project site will be preserved for greenbelt in addition to 33% greenbelt/plantation area. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the green belt development shall be completed in a year.

10. There are 2 no. of Schedule - I species reported in study area, namely Sloth Bear & Elephant. Previously, the Wildlife Conservation plan was prepared by the Consultant Visiontek Consultancy Services Pvt. Ltd. and submitted to DFO, Keonjhar dated 11th Oct. 2021, Keonjhar for approval. However, in lieu of revised guidelines vide memo number 3337/CWLW-FDWC-MISC-00282021 dated 16th April 2022 from Office of the PCCF (Wildlife) & Chief Wildlife Warden, Odisha, Wildlife conservation Plan is required to be prepared at DFO level. Presently WLCP is under consideration at DFO level.
11. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
12. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
13. The Committee also deliberated on the technical issues raised during previous consideration of the proposal dated 15.11.2021 and found the submission of project proponent as satisfactory.
14. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
15. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

10.16.20 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 following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements:

A. Specific Conditions:

- i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- iii. The activities and the action plan proposed by the project proponent to address the issues raised during public hearing and socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.
- iv. Ardei River, Jokdara River, Jhumpura Water reservoir, Tangrani Dam and Jagadala Reservoir exists within the study area of 10 km from the project site. The water bodies shall not be disturbed. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.
- v. Tailings from Iron Ore beneficiation plant shall be dewatered in filter press and no slime /tailing pond shall be permitted.
- vi. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.
- vii. Three tier Green Belt shall be developed in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Additional plantation shall be developed towards Tangarani Reserve forest to minimise the impact of the project activities. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- viii. There are around 298 nos. of trees proposed to be felled at the project site. PP shall explore the possibility to limit the tree felling to bare minimum and with the permission from Competent Authority. The compensatory afforestation shall be done as per the guidelines of the Forest Department.
- ix. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
- x. Following additional arrangements to control fugitive dust shall be provided:
 - a. Fog / Mist Sprinklers at all on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
 - b. Proper covered vehicle shall be used while transport of materials.
 - c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.
- xi. Dust emission from all the stacks shall be less than 30 mg/Nm³.

- xii. The water requirement for the project is estimated as 1795.91 m³/day, will be met from Ardei River. No ground water abstraction is permitted for expansion project.
- xiii. Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.
- xiv. The proposed project shall be designed as "Zero Liquid Discharge" Plant. No waste water will be discharged outside the plant boundary.
- xv. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- xvi. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- xvii. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
- xviii. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.
- xix. The recommendations of the approved Site-Specific 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 of the MoEF&CC.

A. 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 04 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iii. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.
- iv. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- v. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- vi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- vii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- ix. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).
- x. Land-based APC system shall be installed to control coke pushing emissions.
- xi. Monitor CO, HC and O₂ in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.
- xii. Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.
- xiii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- xiv. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; 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 recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
- v. Tyre washing facilities shall be provided at the entrance of the plant gates.
- vi. Water meters shall be provided at the inlet to all unit processes in the steel plants.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

- i. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
- ii. Restrict Gas flaring to < 1%.
- iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- iv. Provide LED lights in their offices and residential areas.
- v. Ensure installation of regenerative/recuperative type burners on all reheating furnaces.

VI. Waste management

- i. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.
- ii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

- i. Green belt shall be developed in an area equal to 33% of the plant area with native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant

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

VIII. Public hearing and Human health issues

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

IX. Environment Management

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.
- ii. The company shall have a well laid down environmental policy duly 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, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- x. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Agenda No. 10.17

10.17 Expansion of Steel Plant – DRI Kilns (Sponge Iron from 2,25,000 TPA to 7,86,000 TPA), Induction Furnaces along with CCM & LRF (MS Ingots / Billets/ Hot Charging from 2,34,300 TPA to 6,95,800 TPA), Rolling Mill (Hot Rolled TMT / Structural / Cold Rolled Bars/Wire Rod - 2,90,000 TPA to 7,19,000 TPA), 2 x 9 MVA Ferro Alloys, 1 x 30 T Electric Arc Furnace, WHRB based Power Plant from 10 MW to 46 MW, FBC based Power Plant from 7 MW to 25 MW, New 1.2 MTPA of I/O Beneficiation plant, New 0.8 MTPA of I/O Pellet Plant by M/s Shyam Steel Manufacturing Limited, located at J.L.No. 11, Jemua Mouza, Mejia Block, Bankura District, West Bengal – Consideration of Environmental Clearance.

[Proposal No. IA/WB/IND/6258/2007; File No. J-11011/724/2007-IA.II(I)]

[Consultant: Pioneer Enviro Laboratories & Consultants Pvt. Ltd.; Valid upto 21.09.2022]

10.17.1 M/s. Shyam Steel Manufacturing Limited has made an online application vide proposal no. IA/WB/IND/6258/2007, dated 25/07/2022 along with copy of EIA/EMP report and Form – 2 and certified compliance report seeking Environment Clearance (EC) under the provision of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous), 2(b) Mineral Beneficiation and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

10.17.2 Name of the EIA consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [Sl. No. 137, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/1922/SA0148; valid upto 21.09.2022, Rev. 24, July 05, 2022].

Details submitted by the project proponent

10.17.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
30 th May 2021	Standard TOR issued	Terms of Reference	1 st June 2021	30 th May 2025

10.17.4 The project of M/s. Shyam Steel Manufacturing Limited located in J.L.No.11, Jemua Mouza, Mejia Block, Bankura District, West Bengal state has proposed expansion of Steel Plant – DRI Kilns (Sponge Iron from 2,25,000 TPA to 7,86,000 TPA), Induction Furnaces along with CCM & LRF (MS Ingots / Billets/ Hot Charging from 2,34,300 TPA to 6,95,800 TPA), Rolling Mill (Hot Rolled TMT / Structural / Cold Rolled Bars/Wire Rod - 2,90,000 TPA to 7,19,000 TPA), 2 x 9 MVA Ferro Alloys, 1 x 30 T Electric Arc Furnace, WHRB based Power Plant from 10 MW to 46 MW, FBC based Power Plant from 7 MW to 25 MW, New 1.2 MTPA of I/O Beneficiation plant, New 0.8 MTPA of I/O Pellet Plant.

10.17.5 Environmental site settings

S.No.	Particulars	Details	Remarks																						
i.	Total land	91.34 Ha. (225.64 Acres) [Private Land & Industrial Land]	--																						
ii.	Land acquisition details as per MoEF&CC, O.M. dated 7/10/2014.	<p>Land use of the Plant site</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Type of Land</th> <th>Area (in Ha.)</th> <th>Area (in Ac.)</th> <th>Status of Acquisition</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Land registered</td> <td>66.1</td> <td>163.3</td> <td>Already acquired (Existing project)</td> </tr> <tr> <td>2</td> <td>Agreement of sale executed</td> <td>25.24</td> <td>62.34</td> <td>Out of 62.34 acres of proposed land, for 3.258 Acres has been registered and for remaining land agreement of sale is entered</td> </tr> <tr> <td colspan="2">Total land</td> <td>91.34</td> <td>225.64</td> <td></td> </tr> </tbody> </table> <p>Proposed expansion will be taken up partly in the Existing plant (i.e. 66.1 Ha. / 163.3 Acres) and partly in the land adjacent to the existing plant (i.e. 25.24 Ha./ 62.34 Acres).</p>	S. No.	Type of Land	Area (in Ha.)	Area (in Ac.)	Status of Acquisition	1	Land registered	66.1	163.3	Already acquired (Existing project)	2	Agreement of sale executed	25.24	62.34	Out of 62.34 acres of proposed land, for 3.258 Acres has been registered and for remaining land agreement of sale is entered	Total land		91.34	225.64				
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Total land		91.34	225.64																						
iii.	Existence of habitation & involvement of R&R, if any.	<p>Project site: No habitation exists in the plant site</p> <p>Study Area:</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Jemua</td> <td>0.1 kms.</td> <td>W</td> </tr> </tbody> </table> <p>54 No. of Villages in the Study Area</p>	Habitation	Distance	Direction	Jemua	0.1 kms.	W	--																
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v.	Elevation of the	96 M above mean sea level	--																						

S.No.	Particulars	Details	Remarks															
	project site																	
vi.	Involvement of Forest Land, if any	Nil	--															
vii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drianage, Canal etc.) exists within the project site as well as study area	<p>Project Site: 4 no.s of rain fed pond are present in the additional land proposed for expansion proposal and same will not be disturbed & will be utilised as water reservoirs.</p> <p>Study area:</p> <table border="1"> <thead> <tr> <th>Water body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Damodar River</td> <td>1.5 Kms.</td> <td>NE</td> </tr> <tr> <td>Galghata Jhor Nallah</td> <td>0.5 Kms.</td> <td>S</td> </tr> <tr> <td>Chouphari Nallah</td> <td>3.7 Kms.</td> <td>SE</td> </tr> <tr> <td>Mejia Bil Reservoir</td> <td>1.3 Kms</td> <td>E</td> </tr> </tbody> </table> <p>4 no.s of rain fed pond are present in the additional land proposed for expansion proposal and same will not be disturbed & will be utilised as water reservoirs.</p>	Water body	Distance	Direction	Damodar River	1.5 Kms.	NE	Galghata Jhor Nallah	0.5 Kms.	S	Chouphari Nallah	3.7 Kms.	SE	Mejia Bil Reservoir	1.3 Kms	E	--
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viii.	Existence of ESZ / ESA / National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. if any within the study area	<p>Nil</p> <p>List of Reserved and Protected forests: Gangajalghati PF (East Direction) – 3.0 Kms</p>																

10.17.6 The existing plant was initially accorded the Environment Clearance from MoEF&CC vide F.No. J-11011/724/2007–IA.II(I) dated 4th August 2008. Subsequently another EC was obtained from MoEF&CC vide F.No. J-11011/724/2007 – IA II (I) dated 24th May 2019 for expansion of steel plant. Later obtained No Increase in Pollution Load Certificate (for capacities of EC dt. 4th August 2008) vide dt. vide letter no. 406-2N-29/2019 (E)-PT-II dt. 26th April 2021 from West Bengal Pollution Control Board (WBPCB) for increase in production capacity of Sponge Iron, Induction Furnaces & Rolling Mill. Accordingly obtained Consent to Operate (CTO) from West Bengal Pollution Control Board (WBPCB) which is regularly being

renewed from WBPCB and latest CTO vide consent order No. CO110276, Date 29/03/ 2019 is valid up to 31/12/2023.

10.17.7 Implementation status of the existing EC:

S.No.	Facilities	Capacity	As per EC / NIPL Certificate	Implementation Status	Production as per CTO
1.	DRI Kilns [1 x 300 TPD & 3 x 100 TPD]	2,25,000 TPA	As per NIPL Certificate vide no. 406-2N-29/2019 (E)-PT-II dt. 26 th April 2021	In operation	2,25,000 TPA
2.	DRI Kilns [3 x 350 TPD]	3,46,500 TPA	EC obtained on 24 th May, 2019	<i>Yet to establish</i> (Present proposal is for establishment of 4 x 425 TPD instead of 3 x 350 TPD)	Nil
3.	Induction Furnace [6 x 11 T]	2,34,300 TPA	As per NIPL Certificate vide no. 406-2N-29/2019 (E)-PT-II dt. 26 th April 2021	In operation	2,34,300 TPA
4.	Induction Furnace [8 x 15 T]	3,96,000 TPA	EC obtained on 24 th May, 2019	<i>Yet to establish</i> (Present proposal is for establishment of 3 x 15T & 5 x 17 T with 5 x 15 T LRF will be installed instead of 8 x 15 T)	Nil
5.	Electric Arc Furnace [1 x 30 T]	1,98,000 TPA	EC obtained on 24 th May, 2019	<i>Yet to establish</i>	Nil
6.	Rolling Mill	2,90,000 TPA	As per NIPL Certificate vide no. 406-2N-29/2019 (E)-PT-II dt. 26 th April 2021	In operation	2,90,000 TPA
7.	Rolling Mill [2 x 650 TPD]	4,29,000 TPA	EC obtained on 24 th May, 2019	<i>Yet to establish</i> (Present proposal is for	Nil

S.No.	Facilities	Capacity	As per EC / NIPL Certificate	Implementation Status	Production as per CTO
				establishment of 1 x 1000 TPD + 1 x 300 TPD instead of 2 x 650 TPD)	
8.	Ferro Alloy Plant [2 x 9 MVA]	(FeMn 32,400 TPA / SiMn 32,400 TPA / FeCr – 27,000 TPA / FeSi – 15,600 TPA)	EC obtained on 4 th August 2008	In operation	(FeMn 32,400 TPA / SiMn 32,400 TPA / FeCr – 27,000 TPA / FeSi – 15,600 TPA)
9.	Ferro Alloy Plant [2 x 9 MVA]	(FeMn 32,400 TPA / SiMn 32,400 TPA / FeCr – 27,000 TPA / FeSi – 15,600 TPA)	EC obtained on 24 th May, 2019	Yet to establish	Nil
10.	Power Plant (WHRB)	10 MW	EC obtained on 4 th August 2008 & 24 th May 2019	In operation	10 MW
11.	Power Plant (WHRB)	24 MW	EC obtained on 4 th August 2008 & 24 th May 2019	Yet to establish (Present proposal is for increase in Power plant from 24 MW to 36 MW)	36 MW
12.	Power Plant (FBC)	7 MW	EC obtained on 4 th August 2008	In operation	7 MW
13.	Power Plant (FBC)	25 MW	EC obtained on 24 th May, 2019	Yet to establish (Present proposal is for reduction in Power plant from 25 MW to 18 MW)	18 MW
14.	Oxygen Plant	4,000 TPA	EC obtained on 24 th May, 2019	Yet to establish	Nil

S.No.	Facilities	Capacity	As per EC / NIPL Certificate	Implementation Status	Production as per CTO
15.	Cement Plant	75,000 TPA	EC obtained on 4 th August 2008	In operation	75,000 TPA
16.	Coal / Coke / Chrome fines Briquette	1,00,000 TPA	EC obtained on 4 th August 2008	Yet to establish	Nil

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

S. No.	Unit (Product)	Existing Operating plant	Capacity for which EC obtained in 24 th May, 2019	Present Proposal	Final Configuration after Present Proposal
		[1]	[2]	[3]	[4] = [1] + [3]
1.	Iron Ore Beneficiation plant (concentrated Iron ore)	---	---	1.2 MTPA	1.2 MTPA
2.	Iron Ore Pellet Plant (I/o Pellets)	---	---	0.8 MTPA	0.8 MTPA
3.	DRI Kilns (Sponge Iron)	2,25,000 TPA	3,46,500 TPA (3 x 350 TPD)	5,61,000 TPA (4 x 425 TPD will be installed instead of 3 x 350 TPD)	7,86,000 TPA
4.	Induction Furnace with CCM & LRF (MS Ingots / Billets / Hot Billets)	2,34,300 TPA	3,96,000 TPA (8 x 15T)	4,61,500 TPA (3x15T & 5x17T with 5 x 15T LRF will be installed instead of 8 x 15 T)	6,95,800TPA
5.	Electric Arc Furnace	Nil	1,98,000 TPA (1 x 30 T)	1,98,000 TPA (1 x 30 T) [Retained EC permitted capacity]	1,98,000 TPA (1 x 30 T)
6.	Rolling Mill (Hot Rolled TMT / Structural / Cold Rolled Bars / Wire Rod) (80 % Hot charging	2,90,000 TPA	4,29,000 TPA (2 x 650 TPD)	4,29,000 TPA (Change in configuration of EC permitted	7,19,000 TPA

S. No.	Unit (Product)	Existing Operating plant	Capacity for which EC obtained in 24 th May, 2019	Present Proposal	Final Configuration after Present Proposal
		[1]	[2]	[3]	[4] = [1] + [3]
	with Hot Billets and remaining 20% through 2x20TPH RHF)			capacity to 1 x 1000 TPD + 1 x 300 TPD)	
7.	Ferro Alloy Plant (FeSi/FeMn/SiMn/FeCr)	2 x 9 MVA (FeMn 32,400 TPA / SiMn 32,400 TPA / FeCr – 27,000 TPA / FeSi – 15,600 TPA)	2 x 9 MVA (FeMn 32,400 TPA / SiMn 32,400 TPA / FeCr – 27,000 TPA / FeSi – 15,600 TPA)	2 x 9 MVA (FeMn 32,400 TPA / SiMn 32,400 TPA / FeCr – 27,000 TPA / FeSi – 15,600 TPA) [Retained EC permitted capacity]	4 x 9 MVA (FeMn64,800 TPA / SiMn64,800 TPA / FeCr – 54,000 TPA / FeSi – 31,200 TPA)
8.	Power Plant (WHRB)	10 MW	24 MW	Increase in WHRB Power from 24 MW to 36 MW (4 x 9 MW)	46 MW
9.	Power Plant (FBC)	7 MW	25 MW (1 x 25 MW)	Reduction in Power Plant from 25 MW to 18 MW	25 MW
10.	Oxygen Plant	Nil	4,000 TPA	4,000 TPA [Retained EC permitted capacity]	4,000 TPA
11.	Cement Plant	75,000 TPA	Nil	---	75,000 TPA
12.	Coal / Coke / Chrome fines Briquette	Nil	1,00,000 TPA	1,00,000 TPA [Retained EC permitted capacity]	1,00,000 TPA

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

S.No.	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport	
1.	For Iron Ore Beneficiation Plant (12,00,000 TPA – throughput capacity)					
a)	Iron ore fines	12,00,000	Rungta Mines, Essel Mines & Other mines in Barbil & Jharkand	~ 500 Kms.	By rail & road (Covered trucks)	
2.	For Pellet Plant (Pellets) - 8,00,000 TPA					
a)	Iron Ore Concentrate	8,80,000	Own generation	---	Through covered conveyers	
b)	Bentonite	6,400	West Bengal	~ 200 Kms.	By road (Covered trucks)	
c)	Limestone	12,000	Madhya Pradesh	~ 500 Kms.	By road (Covered trucks)	
d)	Anthracite Coal	28,000	Jharkhand	~ 200 Kms.	By road (Covered trucks)	
3.	For DRI Kilns (Sponge Iron) – 5,61,000 TPA (4 x 425 TPD)					
a)	Pellets (100%)	8,00,000	Inhouse generation	---	---	
	Or					
b)	Iron ore (100%)	9,53,700	Barbil, Orissa NMDC, Chhattisgarh	~ 500 Kms.	By Rail & Road (covered trucks)	
c)	Coal	Indian (100%)	7,30,000	ECL, West Bengal / MCL Odisha	~ 600 Kms.	By rail & road (covered trucks)
		Imported (100%)	5,00,000	Indonesia / South Africa / Australia	~ 270 Kms. (from Haldia Port)	Through sea route, & by road (covered trucks)
d)	Dolomite	28,050	Chhattisgarh	~ 600 Kms.	By rail & road (covered trucks)	
4.	For Steel Melting Shop (MS Ingots / Billets/Hot Billets) –4,61,500 TPA (3x15T & 5x17T induction furnaces)					
a)	Sponge Iron	4,43,040	Own generation	---	Through covered conveyers	
b)	Pig Iron	55,380	West Bengal	~ 100 Kms.	By road (covered trucks)	
c)	MS Scrap	41,535	West Bengal	~ 100 Kms.	By road (covered trucks)	
d)	Ferro alloys	5,538	Own generation	---	By road (covered trucks)	
5.	For Rolling Mill through Hot charging & RHF (Hot Rolled TMT / Structural / Cold Rolled Bars/Wire Rod) – 4,29,000 TPA					

S.No.	Raw Material		Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
a)	Hot Billets / Billets / Ingots		4,51,650	Own generation	---	----
b)	LDO / LSHS		2,800 Kl/annum	Nearby IOCL Depot	~ 100 Kms.	By road (in Tankers)
6.	For FBC Boiler [Power Generation 1 x 18 MW]					
a)	Indian Coal (100%)		1,20,960	ECL, West Bengal / MCL Odisha	~ 600 Kms.	By rail & road (covered trucks)
OR						
b)	Imported Coal (100%)		87,971	Indonesia / South Africa / Australia	~ 270 Kms. (from Haldi Port)	Through sea route, rail route & by road (covered trucks)
OR						
c)	Dolochar	Dolochar	1,40,250	Inhouse generation	---	Through covered conveyors
	+ Indian Coal	Indian Coal	43,823	ECL, West Bengal / MCL Odisha	~ 600 Kms.	By rail & road (covered trucks)
OR						
d)	Dolochar	Dolochar	1,40,250	Inhouse generation	---	Through covered conveyors
	+ Imported Coal	Imported Coal	31,871	Indonesia / South Africa / Australia	~ 270 Kms. (from Haldi Port)	Through sea route, rail route & by road (covered trucks)
Note: SSML is in the process of having it's own Railway Siding upto the plant site.						

10.17.10 Water required in the existing plant is 1050 KLD and same being sourced from Damodar river. Water permission for existing plant is issued by the Chief Engineer, Water Resources Department of Govt. of West Bengal for drawl of water from Damodar river vide letter dt.24th April 2019. Water required for the proposed expansion project will be 3420 KLD and same will be sourced from Damodar River. Total water requirement after the proposed expansion will be 4470 KLD. Water permission from Damodar Valley Corporation has already been obtained for 1.3 MGD (i.e. 5909.75 KLD).

10.17.11 Power requirement for the existing plant is 41.70 MW and same is being met from Captive Power plant and Damodar Valley Corporation (DVC). Power required for proposed expansion will be 105.5 MW. Total Power required for after the proposed expansion will be 147.2 MW.

Power required will be met partly i.e. 95.7 MW from captive power plant and remaining 51.5 MW from Damodar Valley Corporation (DVC).

10.17.12 Baseline Environmental Studies

Period	1 st March 2021 to 31 st May 2021										
Ambient Air Quality	<ul style="list-style-type: none"> • PM_{2.5} = 22.2 to 44.9 µg/m³ • PM₁₀ = 37.5 to 77.8 µg/m³ • SO₂ = 6.7 to 14.2 µg/m³ • NO₂ = 7.3 to 28.9 µg/m³ • CO = 312 to 1445 µg/m³ 										
AAQ modeling (incremental GLC's) ISCST3 model is used	<ul style="list-style-type: none"> • PM₁₀ = 2.5 µg/m³ (2600 m) • SO₂ = 9.1 µg/m³ (3400 m) • NO₂ = 15.1 µg/m³ (3800 m) • CO = 6.4 µg/m³ 										
Ground water quality at 8 locations	<ul style="list-style-type: none"> • pH : 7.0 to 7.9 • TSS : 0.32 to 0.6 mg/l • TDS : 433 to 604 mg/l • Total hardness : 146 to 255 mg/l • Chlorides : 210 to 288 mg/l • Fluoride : 0.51 to 0.78 mg/l • Heavy metals (Iron): 0.18 to 0.33 mg/l 										
Surface water quality	pH : 7.4 to 8.1, DO (in mg/l) : 4.4 to 5.9, BOD (in mg/l) : 2.2 to 3.6, COD (in mg/l) : 10.5 to 15.4, TDS (in mg/l) : 268 to 413, Chlorides (in mg/l) : 136 to 196, Sulphates (in mg/l) : 92 to 155										
Noise level	The equivalent day-night noise levels in the study zone are ranging from 47.18 dBA to 70.06 dBA.										
Traffic assessment study findings	<p>Traffic study has been conducted at National Highway # 60 which is approximately 0.8 Kms. from the plant site.</p> <p>Shyam Steel Manufacturing Ltd. is in the process of having it's own Railway Siding upto the plant site. Most of the major materials required for expansion will be transported by Rail. No. of trucks required for proposed expansion project will be 431 trucks /day (i.e. 18 trucks/hr.) (considering worst scenario i.e. whole transport by road through covered trucks)</p> <p>Existing PCU is 580 PCU/hr. on NH#60 and existing Level of service (LOS) is:</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Proposed V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH # 60</td> <td>580</td> <td>3600</td> <td>0.16</td> <td>A</td> </tr> </tbody> </table> <p>PCU load after proposed project will be 580 PCU/hr. + 119 PCU/hr. and level of service (LOS) will be:</p>	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Proposed V/C Ratio	LOS	NH # 60	580	3600	0.16	A
Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Proposed V/C Ratio	LOS							
NH # 60	580	3600	0.16	A							

Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Proposed V/C Ratio	LOS																					
NH # 60	699	3600	0.194	A																					
Level of Service (LOS) of the Road																									
<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>V/C</th> <th>LOS</th> <th>Performance</th> </tr> </thead> <tbody> <tr> <td>0.0 – 0.2</td> <td>A</td> <td>Excellent</td> </tr> <tr> <td>0.2 – 0.4</td> <td>B</td> <td>Very Good</td> </tr> <tr> <td>0.4 – 0.6</td> <td>C</td> <td>Good</td> </tr> <tr> <td>0.6 – 0.8</td> <td>D</td> <td>Fair/ Average</td> </tr> <tr> <td>0.8 – 1.0</td> <td>E</td> <td>Poor</td> </tr> <tr> <td>1.0 & Above</td> <td>F</td> <td>Very Poor</td> </tr> </tbody> </table>					V/C	LOS	Performance	0.0 – 0.2	A	Excellent	0.2 – 0.4	B	Very Good	0.4 – 0.6	C	Good	0.6 – 0.8	D	Fair/ Average	0.8 – 1.0	E	Poor	1.0 & Above	F	Very Poor
V/C	LOS	Performance																							
0.0 – 0.2	A	Excellent																							
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0.6 – 0.8	D	Fair/ Average																							
0.8 – 1.0	E	Poor																							
1.0 & Above	F	Very Poor																							
<p>Capacity as per IRC 73: 1980 guide line for capacity of the roads Conclusion: As per the above the LOS of the ROAD is categorized under ‘A’, which implies “EXCELLENT”. Hence the existing road is capable of taking the additional vehicular traffic due to the proposed expansion project.</p>																									
Flora and fauna	No Endangered species of Flora and Schedule I species of Fauna observed in the study area.																								

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

S. No.	Waste	Quantity (TPA)			Method of disposal
		Existing	Proposed	After expansion	
1.	Tailing from Beneficiation plant	--	2,40,000	2,40,000	Tailings from thickener will be taken to filter press and the dewatered tailings cake be stored in the yard with 30 days' capacity. This will be given to M/s. S.N. Bricks manufacturers for supplying to ceramic industries / cement plants.
2.	Dust from Pellet Plant (ESP & Bagfilter dust from dedusting system)	--	2,200	2,200	Will be given to Brick manufacturing units.
3.	Ash from DRI	32,400	1,00,980	133,380	Is being utilized in the existing Cement Plants (Partly) & given to Brick manufacturers (partly). In expansion Ash will be utilized in brick making unit and excess if any will be supplied

S. No.	Waste	Quantity (TPA)			Method of disposal
		Existing	Proposed	After expansion	
					to other brick manufacturer / Cement Plant.
4.	Dolochar	54,000	1,40,250	194,250	Is being utilized in the existing AFBC boiler-based power plant. The same practice will be continued after expansion also.
5.	Kiln Accretion Slag	1,620	5,049	6,669	Is being given to road contractors for road construction & given to brick manufacturer and same practice will be continued after the proposed expansion also.
6.	Wet Scraper Sludge	2400	7,517	9,917	Is being given to road contractors for road construction & given to brick manufacturer and same practice will be continued after the proposed expansion also.
7.	SMS Slag	32,800	64,610	97,410	Presently it is utilized in the slag crusher unit of M/s. Shyam Steel Industries Ltd. (Sister Concern unit) at Bamunara Industrial Estate, where it is processed for metal recovery. The remaining material after the recovery process is further used as Raw material for Brick manufacturing unit at M/s. Shyam Steel Industries Ltd. and will also be utilized in own brick manufacturing unit, which is established recently.
8.	End cuttings from rolling Mill	8,700	12,780	21,480	Reused in SMS
9.	Mills Scales from Rolling Mill	5,800	1,716	7,516	Will be used in existing and proposed SMS & Ferro Alloys plant captively
10.	Ash from Power Plant (With Indian Coal + Dolochar)	40,920	1,03,870	1,44,790	Is being given to M/s. BMR Enterprises, who is a supplier of ash to M/s. Ultratech Cement Ltd., Durgapur. In the proposed expansion project also ash will be given to M/s. BMR Enterprises for utilization of ash in cement manufacturing.

Hazardous waste generation, storage & disposal:**1.Waste oil: 5.0 KL / Annum**

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

2.Used Batteries

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

10.17.14 Public Consultation

Date of advertisement	12 th March 2022
Name of newspapers	Millennium Post - English Aajkaal - Bengali Sanmarg - Hindi
Date on which Public Hearing conducted	13 th April 2022
Venue	Mejia Panchayat Samity Meeting Hall, PS: Mejia, Dist: Bankura, West Bengal
Attended by	Additional District Magistrate
Issues are	<ul style="list-style-type: none"> • CER activities • Health Care Facility • Plantation • Employment • Water sprinklers • Street lights • Waste water management etc.

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

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
A). Based on Need Based & SIA Study						
1	Community & Infrastructure Development Programmes					
	i) Construction of public toilets	Physical Nos. & village	2 nos. in Jemua (v) & 4 nos. in Mejia (v)	2nos. in Parabatipur(v) & 2 Nos. in Gopalpur (v)	2 nos. in Shyampur (v) & 4 Nos. in Tarapur (v)	40
		Budget in Lakhs	15	10	15	
	ii) Mineral water plants	Physical Nos. & village	2 nos. in Jemua (v) & 4 nos. in Mejia (v)	2 nos. in Parabatipur(v) & 2 Nos. in Gopalpur (v)	2 nos. in Shyampur (v) & 4 Nos. in Tarapur (v)	48

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
		Budget in Lakhs	18	12	18	
	iii) LED lights with solar panels	Physical Nos. & village	10 nos. in Jemua (v) & 20 nos. in Mejia (v)	10 nos. in Parabatipur(v) & 10 Nos. in Ardhamgram (v)	10 nos. in Shyampur (v) & 20 Nos. in Tarapur (v)	16
		Budget in Lakhs	6	4	6	
					Total	104
2	Education					
	i) Providing Sport kits for schools	Physical Nos. & village	5 nos. in Jemua (v) & 15 nos. in Mejia (v)	5nos. in Parabatipur(v) & 5 Nos. in Ardhamgram (v)	10 nos. in Shyampur (v) & 20 Nos. in Tarapur (v)	6
		Budget in Lakhs	2	1	3	
	ii) Construction of class rooms in schools of size 10m x 7m x 4 m	Physical Nos. & village	4 rooms in Mejia (v)	3 rooms. in Tarapur (V)	3 rooms in Jemua (V)	70
		Budget Rs in Lakhs	28	21	21	
	iii) Providing Model Anganwadi Centre in consultation with State Women and Child Development Department	Physical Nos. & village	Mejia (v) -1 No.	Tarapur(v) – 1 No. & Parabatipur(v) – 1 No.	Shyampur (v) -1 No. & Gopalpur (v) – 1 No.	50
		Budget Rs in Lakhs	10	20	20	
	iv) Providing furniture, computers, library, etc. for nearby local schools of 3 villages @Rs. 10.0 Lakhs per school	Physical Nos. & village	Mejia (v) – 1 no	Shyampur (v)- 1No & Egara (v) – 1 No.	Tarapur (v) – 1 No &	40
		Budget Rs in Lakhs	10	20	10	
					Total	166
3	RWH pits in the surrounding villages & De-siltation of ponds	Physical Nos. & village	Mejia village pond desiltation 1m depth	Parbatipur village pond desiltation 1.5 m depth	RWH pits in Mejia school (3 nos), Ballavpur school (4 nos) & Egara school (3)	20

S.NO.	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)	
		1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)		
				nos.)		
		Budget in Lakhs	4	6	10	
4	Impart training to the local villagers for skill development. a)DISHA Centre” along with necessary infrastructure for various vocational training program for employment generation in association with National Skill Development Mission (Automobile Repair, Welding, Electrical, Computer Hardware, Soft skills like computer programs etc.)	Physical Nos. & village	One DISHA centre			230
		Budget in Lakhs	60	70	100	
5	Primary Health Centre with Ambulance	Physical Nos. & village	Mejia (v)	---	---	80
		Budget in Lakhs	80	---	---	
					TOTAL (A)	600
(b) Based on Public consultation						
1	Development of 15000 nos of plantation in villages in Mejia (3000 nos), jamua (1500 nos) , Parbatipur (2000 nos), Gopalpur (2000 nos), Ardhagram (1500 nos), Shyampur (2000 nos.) & tarapur (3000 nos.) villages	Physical Nos.&village	Mejia (3000 nos), jamua (1500 nos)	Parbatipur (2000 nos), Gopalpur (2000 nos), Ardhagram (1500 nos)	Shyampur (2000 nos.) & Tarapur (3000 nos.)	75
		Budget in Lakhs	22.5	27.5	25.0	
					Total (B)	75

S.NO.	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
		1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
		TOTAL	255.5	191.5	228
Grand Total(A+B)					675
Recurring expenditures under CSR as per companies Act 2014					
<ul style="list-style-type: none"> Health checkup will be carried out periodically in surrounding villages i.e. Mejia, Jamua, Ardhagram, Gopalpur, Tarapur, Shyampur villages @ Rs 6.0 Lakhs every year 					

10.17.15 The capital cost of the expansion project is Rs.1410 Crores and the capital cost for environmental protection measures is proposed as Rs.73.9 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs.4.87 Crores. The expansion project creates direct employment to about 1,800 persons (skilled, semiskilled & unskilled) once the expansion comes to the operational stage and indirect employment of about 700 persons. The details of cost for environmental protection measures is as follows:

S.No.	Item	Capital Cost (Rs. in Crores)			Recurring Cost per Annum (Rs. in Crores)
		2022-24	2024-26	Total	
1.	Air Emission Management				
	• Electro Static Precipitators	19.00	10.00	29.00	2.40
	• Fume /Dust extraction systems with Bag filters	7.00	6.50	13.50	1.20
	• Chimneys	6.60	5.00	11.60	0.05
	• CAAQMS (4 nos)	0.80	0.80	1.60	0.10
	• CEMS (17 nos.)	0.40	0.45	0.85	0.05
	• Water Sprinklers	0.20	0.10	0.30	0.05
	• Mechanical dust sweepers (6 nos.)	0.30	---	0.30	0.02
	• Environment Monitoring	---	---	---	0.20
	• Performance of APCS	---	---	---	0.10
	Sub Total	34.30	22.85	57.15	4.17
2.	Wastewater Management				
	• ETP	0.60	0.30	0.90	0.10
	• STP	0.40	---	0.40	0.20
	• Garland drains	0.40	0.20	0.60	0.02
	Sub Total	1.40	0.50	1.90	0.32
3.	Solid waste Management				
	• Ash handling system	1.70	---	1.70	0.25
	• Ash silos	1.00	---	1.00	---
	• Slag crushing & disposal	0.30	0.20	0.50	0.04

S.No.	Item	Capital Cost (Rs. in Crores)			Recurring Cost per Annum (Rs. in Crores)
		2022-24	2024-26	Total	
	• Hazardous & Municipal solid waste storage	0.30	0.10	0.40	0.01
	Sub Total	3.30	0.30	3.60	0.30
4.	Greenbelt development	0.90	0.90	1.80	0.05
5.	Rainwater Harvesting	0.20	0.20	0.40	--
6.	Fire safety & Occupational Health	1.10	0.30	1.40	0.03
7.	Storm water Management	0.90	---	0.90	
	Total	42.10	25.05	67.15	4.87
	Social Infrastructure Development		6.75		
	Total EMP budget including Social Infrastructural development		73.9		4.87

10.17.16 The 32.79 Ha. (81 acres) of Greenbelt (inclusive of existing) will be developed within the plant premises. 35,000 nos. of plants are existing till date (survival rate 85%). 3000 no. of plants will be planted by December 2022. 7 m to 140 m wide greenbelt is being developed all around the plant. Another 46,000 nos. of saplings will be planted as part of expansion. Local DFO will be consulted in developing the green belt. The tree species to be selected for the plantation are pollutant tolerant, fast growing, wind firm, deep rooted. A three-tier plantation is proposed comprising of an outer most belt of taller trees which will act as barrier, middle core acting as air cleaner and the innermost core which may be termed as absorptive layer consisting of trees which are known to be particularly tolerant to pollutants. 2500 plants will be planted per ha as per CPCB norms.

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

Certified Compliance report from Regional office

10.17.18 The Status of compliance of earlier EC was obtained from IRO, MOEF&CC, Kolkata Vide No.102-653/18/EPE/103 dated 24.03.2022. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Kolkata on 25.04.2022. MoEF&CC (IRO), Kolkata evaluated the same and has issued Report vide letter No. 102-653/18/EPE/239 dated 31.05.2022. The details of the observations made by IRO in the report dated 31.05.2022 along with its re-assessment/present status as furnished by the PP is given as below:

(A) EC letter No. J-11011/724/2007-IA.II (I) dated 4th August 2008

S. No.	Non-compliance Reported if any	Corrective action taken	Remarks of IRO Raipur

S. No.	Non-compliance Reported if any	Corrective action taken	Remarks of IRO Raipur															
1.	PAs need to provide the TCLP test report of slag from Ferro alloy plant to the Regional Office.	TCLP report from Ferro Alloy Plant is being submitted to regional Office along with half yearly compliance report regularly.	PAs have submitted the TCLP test report of slag from Ferro alloy plant to the regional office.															
2.	The copy of permission along with compliance status of recommendations of the State Forest Department regarding impact of the proposed plant on the surrounding Gangajalghati protected forest (3 km) need to be submitted to the Integrated regional Office, Kolkata.	<p>Gangajal ghati protected forest is located outside 10 kms radius from the project side.</p> <p>Air pollution Control System such as ESPs; bag Filters, Dust suppression system, covered conveyors, pucca internal roads, green belt development in 1/3rd of the total area, helps in mitigating the impacts of air environment.</p> <p>The incremental and net resultant GLCs within 10 Kms. for parameters PM₁₀,SO₂,NO_x,CO are as follows:</p> <p>The net resultants GLCs are well within the national Ambient Air Quality Standards. Hence there is no impact on Gangajal ghati protected forest due to the proposed project.</p> <p>Further, Gangajal ghati protected forest is situated in North East direction, whereas winds are predominantly blowing from West to East (as per IMD Annual wind rose).</p> <p>Hence there is no impact on Gangajal ghati protected forest due to the proposed project.</p> <table border="1"> <thead> <tr> <th>Item</th> <th>PM₁₀ (mg/m³)</th> <th>SO₂ (mg/m³)</th> <th>NO_x (mg/m³)</th> <th>CO (mg/m³)</th> </tr> </thead> <tbody> <tr> <td>Maximum baseline conc.in the study area</td> <td>77.8</td> <td>14.2</td> <td>28.9</td> <td>1445</td> </tr> <tr> <td>Maximum predicted incremental rise in concentration due to proposed expansion of SSML</td> <td>1.3</td> <td>18.1</td> <td>6.0</td> <td>6.4</td> </tr> </tbody> </table>	Item	PM ₁₀ (mg/m ³)	SO ₂ (mg/m ³)	NO _x (mg/m ³)	CO (mg/m ³)	Maximum baseline conc.in the study area	77.8	14.2	28.9	1445	Maximum predicted incremental rise in concentration due to proposed expansion of SSML	1.3	18.1	6.0	6.4	<p>As per the information provided, it is observed that the Government of West Bengal, Directorate of Forest vide letter no. 35/8/WL/2M-33/2018 dated 10.10.2018 have stated that "there is no national parks, sanctuaries, and biosphere reserves within 10 km of the project site".</p> <p>Further the Divisional Forest Officer, Bankura (North) Division has stated that " as per the report of Forest Range Officer, G.Ghati, the distance is about 13 km from G. Ghati forest boundary to Shyam Steel Manufacturing Limited".</p> <p>PAs have also provided the net</p>
Item	PM ₁₀ (mg/m ³)	SO ₂ (mg/m ³)	NO _x (mg/m ³)	CO (mg/m ³)														
Maximum baseline conc.in the study area	77.8	14.2	28.9	1445														
Maximum predicted incremental rise in concentration due to proposed expansion of SSML	1.3	18.1	6.0	6.4														

S. No.	Non-compliance Reported if any	Corrective action taken					Remarks of IRO Raipur
		Maximum predicted incremental rise in concentration due to vehicular emissions from the proposed expansion project.	1.2	--	9.1	--	resultant concentrations during the operation of the plant for PM ₁₀ , SO ₂ , NO _x , CO which are within the National Ambient Air Quality Standards.
		Net resultant concentration during operation of the plant.	80.3	32.3	44.0	1451.4	
		National Ambient Air Quality Standards	100	80	80	2000	
3	As proposed, green belt shall be developed in 50 acres (33%) out of 150 acres land available in and around the plant as per the CPCB guidelines within and around the plant premises as per the CPCB guidelines in consultation with DFO. (Specific condition xv).	<ul style="list-style-type: none"> • There are few Fruit bearing trees which are in negligible proportion to the whole, the major species of trees planted are Krishna Chura, Radha Chura, Ashok, Siris, Segun, Seesam, Sonajhuri, Mehguni, Neem, Karanja, Kadam. etc. • 50.0 Acres of extensive greenbelt was already been developed in the plant premises by 2019. • We are in continuous process of developing green belt in additional 10 Acres, as per 2019 EC in accordance with CPCB guidelines. We have planted 3,000 Plants, 1,500 Plants & 3,000 Plants in the FY 2019-20, FY2020-21 & FY 2021-22 respectively. • We do here by confirm that another 3,000 no. of saplings will be further planted in the plant premises in the coming monsoon season and post monsoon by December 2022, in consultation with DFO, covering an area of 3 Acres. 					<p>PAs have stated that there are few fruit bearing trees which are in negligible quantity compared to the trees planted in the area. It has been further stated that they are in continuous process of developing green belt in additional 10 acres as per 2019 EC in accordance of CPCB guidelines.</p> <p>They have further assured to plant 3000 saplings in the coming monsoon season and post monsoon by December 2022, in consultation with DFO, covering an area of 3 Acres.</p>

S. No.	Non-compliance Reported if any	Corrective action taken	Remarks of IRO Raipur
4	It observed that online ambient air quality monitoring system has not been installed. The same may be installed at the project site immediately.	We would like to inform your good selves that Online Ambient Air Quality Monitoring System is being procured. Earlier order was placed in favor of M/s.Enviro Systems & Equipments, Kolkata now we are proceeding with little advanced system hence the previous order cancelled and new order finalized in favor of M/s. ENVEA INDIA PRIVATE LIMITED, the lead time for supply is of 16 weeks, in line, the systems will be installed by October 2022.	PAs have informed that procurement of online ambient air quality monitoring system has been finalized in favour of M/s ENVEA INDIA PRIVATE LIMITED, wherein the lead time for supply is of 16 weeks. It has been stated that the systems will be installed by October 2022.
5	It is required to inform the different dates of commencing of land development and financial closures.	Against 2008 EC the last facility that was established was the rolling mill (2,00,000 TPA), the land development date and financial closure date were 10-10-2017 & 12-12-2017 respectively.	PAs have informed that, against the 2008 EC the last facility that was established was the rolling mill (2, 00,000TPA), and the land development date and financial closure date were 10-10-2017 & 12-12-2017 respectively.

(B) EC letter No. J-11011/724/2007-IA.II (I) dated 24th May 2019

S. No.	Non-compliance Reported if any	Corrective action taken	Remarks of IRO Raipur
1.	PAs need to expedite the plantation drive so as to cover 60 acres of green belt.	<ul style="list-style-type: none"> 50.0 Acres of extensive greenbelt was already been developed in the plant premises by 2019 PP is in continuous process of developing green belt in additional 10 Acres, as per 2019 EC in accordance with CPCB guidelines, PP has planted 3,000 Plants, 1,500 Plants & 3,000 Plants in the FY 2019-20, FY2020-21 & FY 2021-22 respectively. PP do here by confirm that another 3,000 no. of saplings will be further planted in the plant 	PAs have informed that they are in continuous process of developing green belt in additional 10 Acres, as per 2019 EC in accordance with CPCB guidelines. They have planted 3,000 Plants, 1,500 Plants & 3,000 Plants in the FY 2019-20, FY2020-21 & FY 2021-22 respectively. They have assured that

S. No.	Non-compliance Reported if any	Corrective action taken	Remarks of IRO Raipur
		premises in the coming monsoon season, In consultation with DFO covering an area of 3 Acres.	another 3,000 no. of saplings will be further planted in the plant premises in the coming monsoon season, in consultation with DFO covering an area of 3 Acres.
2.	PAs need to submit monthly summary report of continuous stack emission and air quality monitoring to the Regional Office.	PP is carrying out continuous stack emission and air quality monitoring every bimonthly and same are being submitted to the Regional Office along with Half Yearly compliance report. Hence forth PP will also submit monthly summary report of continuous stack emission and air quality monitoring.	PAs have assured to submit monthly summary report of of continuous stack emission and air quality monitoring.
3	PAs need to provide more number of mobile or stationery vacuum cleaners.	PP has One Mobile vacuum cleaner in the existing plant. We do here by confirm that additional Mobile vacuum cleaners will be procured during the project implementation.	PAs have informed that they have one mobile vacuum cleaner in the existing plant and have assured to procure additional mobile vacuum cleaners during project implementation.
4	PAs need to monitor ground water quality at some more location both within the plant and adjacent areas.	PP will carry out Ground Water Quality monitoring at 2 additional locations both within and adjacent areas.	PAs have informed that they will carry out ground water quality monitoring at two additional locations both within and adjacent areas.
5	PAs need to provide solar power generation on roof top of buildings.	PP has provided Solar Street lights in the existing plant. PP will provide Roof top solar power generation in envisaged project. PP further confirm that by December 2022 PP will install roof top solar system on the existing roof tops technically suitable for such installation.	PAs have informed that by December 2022, they will install roof top solar system on the existing roof tops technically suitable for such installation.
6	It has been observed that the PAs have planted fruit bearing	<ul style="list-style-type: none"> There are few Fruit bearing trees which are in negligible proportion to the whole, the major species of trees planted are Krishna Chura, Radha Chura, Ashok, Sins, Segun, Seesam, 	PAs have stated that there are few fruit bearing trees which are in negligible quantity compared to the

S. No.	Non-compliance Reported if any	Corrective action taken	Remarks of IRO Raipur
	species in the plant premises. PAs need to develop green belt in the remaining area (3 acres) immediately as per the CPCB guidelines in consultation with DFO.	<p>Sonajhuri, Mehguni, Neem, Karanja, Kadam etc.</p> <ul style="list-style-type: none"> • 50.0 Acres of extensive greenbelt was already been developed in the plant premises by 2019. • PP is in continuous process of developing green belt in additional 10 Acres, as per 2019RC in accordance with CPCB guidelines. We have planted 3,000 Plants, 1,500 Plants & 3,000 Plants in the FY 2019-20, FY2020-21 & FY 2021-22 respectively. • PP do here by confirm that another 3,000 no, of saplings will be further planted in the plant premises in the coming monsoon season and post monsoon by December 2022, in consultation with DFO, covering an area of 3 Acres. 	trees planted in the area. It has been further stated that they are in continuous process of developing green belt in additional 10 acres as per 2019 EC in accordance of CPCB guidelines. They have further assured to plant 3000 saplings in the coming monsoon season and post monsoon by December 2022, in consultation with DFO, covering an area of 3 Acres.
7	It observed that online ambient air quality monitoring system has not been installed. The same may be installed at the project site immediately.	Online Ambient Air Quality Monitoring System are being procured, Earlier order was placed in favour of M,'s. Enviro Systems & Equipment's, Kolkata, now PP is proceeding with little advanced systems hence the previous order cancelled and new order finalised in favour of M/s. ENVEA INDIA PRIVATE LIMITED, the lead time for supply is of 16 weeks, in line, the systems will be installed by October 2022.	PAs have informed that procurement of online ambient air quality monitoring system has been finalized in favour of M/s ENVEA INDIA PRIVATE LIMITED, wherein the lead time for supply is of 16 weeks. It has been stated that the systems will be installed by October 2022.
8	It is required to inform the Regional Office, the date of final approval of the project by the concerned authorities.	Date of final approval for ISMT Induction Furnace - 3 Nos. was 03.09.2020.	PAs have informed that the final approval for the 3 x 15 MT Induction Furnace was 03.09.2020.
<p>Conclusion: The PAs have complied / are in the process of complying or assured to comply with the conditions stipulated by the Ministry. Accordingly the action taken report may be considered for further necessary action.</p>			

Deliberation by the Committee

10.17.19 The Committee noted the following:

1. The Committee observed that the project proponent has not properly submitted the implementation status of the facilities granted vide EC dated 04.08.2008, 25.05.2019 and CTE dated 26.04.2021. There is lot of confusion in the submitted information and PP/consultant were not able to explain the features completely.
2. The Committee also noticed that the table provided for existing and proposed configuration/capacity is not in conformity to the facilities granted vide EC dated 04.08.2008, 25.05.2019 and CTE dated 26.04.2021. The EAC advised to submit the revised information in separate columns for each of the permissions granted and the present production details as per the latest CTO granted by SPCB.
3. The committee noted that water balance diagram needs to be revisited for proper distribution facility wise including greenbelt. Further, total water requirement after the proposed expansion is proposed as 4470 KLD. However, PP has obtained water permission from Damodar Valley Corporation for 1.3 MGD (i.e. 5909.75 KLD) which is much more than the requirement. Project Proponent shall submit the justification with the revised water balance diagram and revised EIA/EMP report.
4. The EAC observed that total land after the proposed expansion will be 91.34 Ha. (225.64 Acres). Existing (66.1 Ha./ 163.3 Acres) is in possession of management and agreement of sale have been done for additional land (25.24 Ha./ 62.34 Acres). However, PP submitted that Additional land will be converted to Industrial purpose. The Project proponent is advised to submit the complete the acquisition and conversion of the additional land proposed in the instant proposal.
5. The Consultant has also not submitted the complete details based on the instructions provided in the Agenda.
6. As per the TOR condition, details of drone survey for the site, needs to be included in report and presented before the EAC during appraisal of the project.
7. Action plan to address the issues raised during public hearing submitted as per the MoEF&CC O.M. dated 30/9/2020 shall be revisited and submitted.
8. Project proponent committed to undertake plantation of atleast 2000 trees along with the connecting roads to National Highway in coming monsoon season during August-September 2022.
9. Project Proponent to consider adopting nearby villages for socio-economic development and shall submit an affidavit with the name of the villages which will be adopted.
10. The PP has to furnish the details of respirable dust concentrations measured in Ferro Alloy plant, Si-Mn, Fe-Cr, Fe-Si alloy plant for the quartz/silica, Chromium concentrations through personal /area monitoring and the results with Permissible limits as per Indian Factories Act. Report has to be furnished.
11. EAC is of the view that the Consultant shall read the various provisions of the EIA Notification, 2006 while preparation of the EIA/EMP Report. All the mitigation measures needs to be properly addressed in the EIA/EMP Report. EAC also warned the Consultant in this regard.

Recommendations of the Committee

10.17.20 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** and sought requisite information on the points referred at para no. 10.17.19 above. The proposal shall be considered after submission of requisite information in next EAC meeting.

Agenda No. 10.18

10.18 Expansion of Integrated Mini Steel Plant by M/s. Ind Synergy Ltd. for Sponge Iron Plant from 3,00,000 to 6,30,000TPA, Power Plant from 24 to 99MW, SMS from 1,40,000 to 4,40,000TPA, Coal Washery from 7,20,000 to 9,00,000TPA, Ironore crusher-14,40,000TPA&new units:Cold Pigs-3,00,000TPA, Sinter Plant-4,40,000TPA, Blast Furnace-3,00,000TPA, Pellet Plant-6,00,000TPA, Rolling Mills-5,00,000TPA, DuctilePipe Plant-2,00,000TPA, Oxygen Plant-70TPD, Ferro Alloy Plant-30,000TPA & Cement Grinding-0.5MTPA, located at Village Kotmar and Mahuapalli, Raigarh Tehsil, Raigarh District, Chhattisgarh – Consideration of Environmental Clearance

[Proposal No. :IA/CG/IND/276148/2020; File No. J-11011/170/2007-IA.II(I)]

[Consultant: B. S. Envi-Tech Pvt. Ltd. ; Valid upto 15.05.2023]

10.18.1 M/s. Ind Synergy Ltd (ISL) has made an online application vide proposal no. IA/CG/IND/276148/2020 dated 18/07/2022 along with copy of EIA/EMP report and Form – 2 and certified compliance report seeking Environment Clearance (EC) under the provision of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous), 3(b) Cement Plants and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

10.18.2 Name of the EIA consultant: M/s. B. S. Envi – Tech (P) Ltd. [Sl. No. 143, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/1922/RA 0174; valid upto 16.11.2022, Rev. 24, July 05, 2022].

Details submitted by the project proponent

10.18.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
24.06.2020	Standard TOR issued	Terms of Reference	16.06.2020	15.06.2024

10.18.4 The project of M/s. Ind Synergy Ltd (ISL) located in Village Kotmar and Mahupalli, Raigarh Tehsil, Raigarh District, Chhattisgarh is for expansion of Integrated Mini Steel Plant - Sponge Iron Plant (DRI Plant) from 3,00,000 to 6,30,000 TPA, Power Plant of WHRB from 24 MW to

49 MW & Installation of 50 MW CFBC Power Plant, Steel Billet MS Steel billet Alloy / Stainless steel (SMS) from 1,40,000 to 4,40,000 TPA, Coal Washery from 7,20,000 to 9,00,000 TPA, Cold Pigs 3,00,000 TPA, Sinter Plant -4,40,000 TPA, Pellet Plant - 6,00,000 TPA, Rolling Mills (Rebar cum Wire Rod Mill) - 5,00,000 TPA, Ductile Pipe Plant - 2,00,000 TPA, Oxygen Plant – 70 TPD, Ferro Alloy Plant - 30,000 TPA and Cement Grinding unit (for PPC, PSC and CC production) - 5,00,000 TPA.

10.18.5 Environmental site settings

S. No.	Particulars	Details	Remarks												
i.	Total land: 103.65 Ha.	Total land area for the project: 103.65 Hectares, (62.25 Ha. Govt Lease Land (CSIDC) and 41.4 Ha is Pvt Land of Ind Synergy)	Land use:												
			S. No	Description	Before Expansion	After Expansion									
			1	Proposed Built up area Manufacturing units	18.25	35.0									
			2	Internal roads	6.65	9.27									
			3	Solid waste storage	0.90	1.2									
			4	Storage yard	4.7	5.23									
			5	Railway sliding	5.75	5.75									
			6	Water reservoir	2.0	2.0									
			7	Staff Quarters	1.2	1.2									
			8	Raw material storage	5.26	5.26									
			9	Greenbelt	34.2	34.2									
			10	Open area	22.74	2.54									
			11	Parking	2.00	2.00									
				Total land	103.65	103.65									
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	The vacant land of 24.74 Ha will be used for the proposed expansion which is within plant premises and 78.91 Ha Present activities including greenbelt. No additional land will be acquired.	-												
iii.	Existence of habitation & involvement of R&R, if any.	Existing land will be utilized for expansion. Nearest Village: 1. Kotmar - 0.70 km – N 2. Siarpali – 0.90 km – SW	No R&R.												
iv.	Latitude and Longitude of all corners of the project	<table border="1"> <thead> <tr> <th>S.NO</th> <th>LATITUDE "N"</th> <th>LONGITUDE "E"</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>21°52'54.51"N</td> <td>83°29'27.79"E</td> </tr> <tr> <td>2.</td> <td>21°52'46.09"N</td> <td>83°30'11.63"E</td> </tr> </tbody> </table>	S.NO	LATITUDE "N"	LONGITUDE "E"	1.	21°52'54.51"N	83°29'27.79"E	2.	21°52'46.09"N	83°30'11.63"E	-			
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v.	Elevation of the project site	232 m above msl	-																																																						
vi.	Involvement of Forest land if any.	No Forest Land Involved	-																																																						
vii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<p>No water Bodies exists in project area</p> <p>Study area</p> <ol style="list-style-type: none"> 1. Sapnal Nala – 0.8 km – NE 2. Nearest Water Body – 1.3 km - W 	HFL : 0.8 km																																																						
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere	<p>Nil.</p> <p>Nearest Reserved Forests:</p> <ol style="list-style-type: none"> 1. Mauhapali PF – Adjacent in E 2. Kukurda RF – 1.2 km – E 3. Salheona PF – 1.1 km – SE 	-																																																						

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

10.18.6 The existing plant was initially accorded Environment Clearance from MoEF&CC vide F.No. F. No. J-11011/313/2006-IA II (I) dated 14.12.2006 and vide J-11011/170/007-IA II (I) dated 23.12.2008 as follows:

S. No	Type of product	Existing capacity and configuration	Production and TPA	Statutory Clearances
1	Sponge Iron Plant (DRI Plant)	3,00,000	(3 X 350 TPD)	EC obtained vide F. No. J-11011/313/2006-IA II (I) dated 14.12.2006.
2	Power Plant (WHRB)	24MW		
3	Steel Billet MS Steel billet Alloy / Stainless steel (SMS)	1,40,000	(5 x 6 Tonnes) + (1X12Tonnes) Induction (existing) Furnace.	Renewal of the CFO obtained Vide 10690/TS/CECB/ 2020 Nava Raipur Atal Nagar, Raipur, Dated 28/02/2020 and Validity up to 28/02/2023.
4	Coal Washery	7,20,000		
5	Iron ore crusher (Crushed Iron Ore)	14,40,000		
6	Cold Pigs	49,300		EC obtained vide letter no. J-11011/170/007-IA II (I) dated 23.12.2008
7	Sinter Plant	4,40,000	(1 X 36M ²)	
8	Blast Furnace	3,00,000	(1 X 260M ³)	

The latest Consent to Operation (CFO) was obtained from State Pollution Control Board vide Order No. Vide 10690/TS/CECB/ 2020 Nava Raipur Atal Nagar, Raipur, Dated 28/02/2020 and valid up to 28/02/2023.

10.18.7 Implementation status of the existing EC:

S. No	Type of product	As per EC dated 14.12.2006	As per EC dated 23.12.2008	Implementation Status (Existing Production capacity and configuration TPA)	Production as per CTO dated 28.02.2020	Statutory Clearances

S. No	Type of product	As per EC dated 14.12.2006	As per EC dated 23.12.2008	Implementation Status (Existing Production capacity and configuration TPA)	Production as per CTO dated 28.02.2020	Statutory Clearances
1	Sponge Iron Plant (DRI Plant)	4,00,000 TPA	4,00,000 TPA	3,00,000 (3 X 350 TPD)	3,00,000 (3 X 350 TPD)	EC obtained vide F. No. J-11011/313/2006-IA II (I) dated 14.12.2006. Renewal of the CFO obtained Vide 10690/TS/CECB/2020 Nava Raipur Atal Nagar, Raipur, Dated 28/02/2020 and Validity up to 28/02/2023.
2	Power Plant (WHRB)	32 MW	32 MW	24MW	24 MW	
3	Power Plant (FBC)	25 MW	75 MW	-	-	
3	Steel Billet MS Steel billet Alloy / Stainless steel (SMS)	2,30,000 TPA	2,30,000 TPA	1,40,000 (5 x 6 Tonnes) +(1X12Tonnes) Induction (existing) Furnace.	1,40,000 TPA	
	Steel Billet Round/square billet	-	2,61,000 TPA		-	
4	Rolling Mill	2,00,000 TPA	2,00,000 TPA		-	
5	Coal Washery	7,20,000 TPA	7,20,000 TPA	7,20,000	7,20,000 TPA	
6	Iron ore crusher (Crushed Iron Ore)	14,40,000 TPA	14,40,000 TPA	14,40,000	14,40,000 TPA	
7	Cold Pigs	-	49,300 TPA	49,300	-	
8	Section mill (Stainless & Steel Grades – rounds, angles & channels, flats)	-	60,000 TPA	-	--	
9	Wire rod mill (Alloy steel coils)	-	90,000 TPA	-	-	
10	Seamless	-	90,000	-	-	

S. No	Type of product	As per EC dated 14.12.2006	As per EC dated 23.12.2008	Implementation Status (Existing Production capacity and configuration TPA)	Production as per CTO dated 28.02.2020	Statutory Clearances
	Tube Plant (Alloy Steel Grades)		TPA			
11	Sinter Plant	-	-	4,40,000 (1 X 36M ²)	-	
12	Blast Furnace	-	-	3,00,000 (1 X 260M ³)	-	

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

S. No	Type of product	Existing Production capacity and configuration TPA	Proposed Production capacity and configuration TPA	Total production capacity and configuration after expansion TPA	Remarks
1	Sponge Iron Plant (DRI Plant)	3,00,000 (3 X 350 TPD)	3,30,000 (2 X 500 TPD)	6,30,000 (3 X 350 TPD, 2 X 500 TPD)	Two more units of 500 TPD each to be installed For Sponge Iron additional production 3,30,000 TPA.
2	Power Plant Internal Consumption				
	Power Plant (CFBC)	-	50 MW (2 x 25 MW & TG Set)	50 MW	New unit – Applying for EC
	Power Plant (WHRB)	24MW	25 MW (2x12.5 MW & TG set)	49 MW	Addition of 2x50 TPH Boilers and 2x12.5 MW TG Set for power generation
3	Steel Billet MS Steel billet Alloy / Stainless steel (SMS)	1,40,000 (5 x 6 Tonnes) + (1X12Tonnes) Induction (existing) Furnace.	3,00,000 (1 X 12T and 4X25 Tonnes) Induction Furnace.	4,40,000	Addition of 1 X 12 T and 4X25 Tonnes Induction Furnace in the existing unit (8 heats/day)
4	Coal Washery	7,20,000	1,80,000	9,00,000	Upgradation of Existing Coal Washery from 720000 TPA to 900000 TPA
5	Iron ore crusher (Crushed Iron Ore)	14,40,000	-	14,40,000	No change in capacity
6	Cold Pigs	49,300	2,50,700	3,00,000	Units already installed but not operated due to expiry of EC Applying for obtaining Fresh EC alongwith 2,50,700 TPA Pigs production
7	Sinter Plant	4,40,000 (1 X 36M ²)	-	4,40,000 (1 X 36M ²)	
8	Blast Furnace	3,00,000 (1 X 260M ³)	-	3,00,000 (1 X 260M ³)	

S. No	Type of product	Existing Production capacity and configuration TPA	Proposed Production capacity and configuration TPA	Total production capacity and configuration after expansion TPA	Remarks
9	Pellet Plant	-	6,00,000 (1x0.6 MTPA)	6,00,000 (1 x 0.6 MTPA)	New unit – Applying for EC
10	Rolling Mills (Rebar cum Wire Rod Mill)	-	5,00,000	5,00,000	New unit – Applying for EC
11	Ductile Pipe Plant	-	2,00,000	2,00,000	New unit – Applying for EC
13	Oxygen Plant	-	70 TPD (1,56,00,000 cum/a)	70 TPD (1,56,00,000 cum/a)	70 TPD, New unit – Applying for EC
13	Ferro Alloy Plant	-	30,000	30,000	2X9 MVA Furnace, New unit – Applying for EC
14	Cement Grinding unit (for PPC, PSC and CC production)	-	5,00,000	5,00,000	Vertical Roller Mill New unit – Applying for EC

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

Raw material	User	Existing	Additional	Total	Storage Quantity	Type of storage	Source
Iron Ore fines	Pellet & sinter	-	10,20,800	10,20,800	2850	Open	mines in Odisha, Jharkhand/ OMC/ other Pvt. mines
Iron Ore Lumps	MBF & DRI	5,46,000	1,05,000	6,51,000	1800	Open	mines in Odisha, Jharkhand/ OMC/ other Pvt. mines
Coal	Pellet, DRI, Cement & MBF	2,70,000	3,62,822	6,32,822	1800	Open	Import / open market
Coal	Power Plant	-	2,66,555	2,66,555	1000	Open	Import / open market
Coke	MBF, Sinter plant & Ferro alloys	-	1,55,500	1,55,500	500	Open	Import / open market
Limestone	Pellet & sinter	-	64,500	64,500	300	Open	Rourkela/ Raigarh
Dolomite	DRI, Ferro alloys & sinter	18,000	56,300	74,300	500	Open	Rourkela/ Raigarh
Quartzite	Blast furnace	-	13,500	13,500	100	Open	Open market
Bentonite	Pellet Plant	-	5,400	5,400	50	Closed	Rourkela/ Raigarh
Slag	Cement Plant	-	3,66,111	3,66,111	1000	Open	In house/market
Gypsum	Cement Plant	-	25,000	25,000	100	Closed	market
Clinker	Cement Plant	-	1,50,000	1,50,000	500	Open	market
Mn.ore	MBF & Ferro	-	70,500	70,500	300	Open	Open market

Raw material	User	Existing	Additional	Total	Storage Quantity	Type of storage	Source
	alloy						
		8,87,310	26,61,988	35,49,298			

10.18.10 The existing water requirement is 2511 m³/day. Water requirement of proposed expansion is about 9726 m³/day. The total water requirement after expansion will be 12,237 m³/day. ISL has obtained consent for drawl of water from Sapnai river (16,800 m³/day) from Water Resources Department, Govt. of Chhattisgarh, vide Memo No. 4632/SAC/07-08 dated 16.10.2007.

10.18.11 The power requirement of the steel plant is about 132.6 MW in full operation after expansion. Present requirement of 29.05 MW is met from the captive power plants and grid from CSPDCL. After expansion, part of the power requirement will be met from the proposed 75 MW (25 WHRB + 50 CFBC) captive power plants and balance from the grid from CSPDCL.

10.18.12 Baseline Environmental Studies

Period	Post Monsoon Season, 2020 (October'2020, November'2020 and December'2020)
AAQ parameters at 08 Locations	PM _{2.5} = 29 to 39 µg/m ³ PM ₁₀ = 68 to 78 µg/m ³ SO ₂ = 15 to 22 µg/m ³ NO _x = 27 to 34.0 µg/m ³ CO: less than 1 ppm
AAQ modelling (Incremental GLC)	PM ₁₀ = 7.27 µg/m ³ - 3.30 km - S direction PM _{2.5} = 2.18 µg/m ³ - 3.30 km - S direction SO ₂ = 12.11 µg/m ³ - 6.70 km - S direction NO _x = 12.11 µg/m ³ - 6.7 km - S direction CO = <1144 µg/m ³ - along the transportation route Model used: AERMOD – Version 10.0
Ground water quality at 08 locations	pH = 6.88 – 7.90 Total Hardness = 114 - 508 mg/l Chlorides = 4.9 – 121.9 mg/l Fluoride = 0.10 – 0.18 mg/l Heavy Metals (Zinc) = Below Detectable Limits
Surface water quality at 02 Locations	pH: 7.76 to 7.90; DO: 4.8 to 5.2 mg/l; BOD: 3.8 to 8.2 mg/l. COD from 24.0 to 64.0 mg/l
Noise Levels At 08 Locations	45.0 to 54.9 dB (A) for the day time 35.1 to 53.3 dB (A) for the Night time.
Traffic assessment study Findings	
<input type="checkbox"/> Traffic study has been carried out at two locations	

1. Traffic study Monitoring point at Petrol pump, near Mahapalli towards plant & Mahapalli ‘Y Junction’ to have information on present traffic.
 - Type of Road: Arterial - 2 lane divided (2 way) road
 - PCU limit: 1500 PCU per hour
2. Traffic study Monitoring point after Mahapalli at Kotmar to NH (Raigarh to Sundargarh) to have information on present traffic.
 - Type of Road: Arterial - 2 lane divided (2 way) road
 - PCU limit: 1500 PCU per hour

The total raw material requirement of the plant is 3.55 MTPA, and the additional raw material for expansion is 2.66 MTPA. Of this 1.86 MTPA (70%) will be transported by rail and balance 0.7986 MTPA (30%) along with additional finished product 1.8107 MTPA will be transported by road.

Existing PCU Load:

Sector	Road	Existing V	C	Existing V/C	LOS
1	Road connecting plant & Mahapalli ‘Y Junction’	473	1500	0.31	B (Very Good)
2	Road connecting Kotmar to NH (Raigarh to Sundargarh)	224	1500	0.14	A (Excellent)

PCU load after Expansion:

Sector	Road	Existing V	Additional	C	Total	Existing V/C	LOS
1	Road connecting plant & Mahapalli ‘Y Junction’	473	84(185)	1500	473+185 =658	0.43	C (Good)
2	Road connecting Kotmar to NH (Raigarh to Sundargarh)	224	84(185)	1500	224+202 =409	0.27	B (Very Good)

* Note: Capacity as per IRC-106:1990.

The Level of Service which is at present in B & A Category will change to C & B Category (Good)

❑ EMP MEASURES

- Closed trucks will be employed for transport of Materials/Products
- Trucks Pollution Under Control (PUC) will be employed
- Monitoring of trucks to ensure compliances such as covering of trucks by tarpaulin, spillage on roads etc.

❑ PARKING FACILITIES:

Area Earmarked: 2.00 Ha

Parking facilities within an area of 2.0 Ha (20000 Sq.m) for parking of trucks with rest shelters & toilets in the vicinity.

Flora and fauna

List of Schedule-I Species Present in Study Area

S.No	Scientific Name	Common Name
1	<i>Melursus ursinus</i>	Sloth Bear
2	<i>Pavo cristatus</i>	Indian Peafowl
3	<i>Varanus bengalensis</i>	Monitor Lizard

Conservation Plan was approved by the Principal Chief Conservator of Forests (Wild Life and Biodiversity Conservation) – cum - Chief Wild Life Warden, Chhattisgarh vide Order no:/wl/Managemant-556/109 Naya Raipur, dated:27/05/2022.

Conservation Budget: Rs. 36.20 Lakhs

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

SOLID WASTE GENERATION AND UTILIZATION

S. No	Plant/Facility	Specific Generation T/T of Product	Quantity (TPA)	DISPOSAL
1	SPONGE IRON PLANT (DRI PLANT)			
	ESP dust	0.045	18000	Iron ore and iron ore dust collected will be recycled back to the process Presently Char/ Dolochar generated from DRI plant is used disposed to sister concern AFBC based power plant located adjacent to the steel plant. After expansion, it will be used in the proposed Power Plant as fuel.
	Bag Filter Dust, scrapper etc.	0.015	6000	
	Kiln Accretion	0.006	2400	
Coal Fines from RM handling	0.045	18000		
2	POWER PLANT – COAL			
	Bottom & Fly Ash from	0.180	73597	Cement production

S. No	Plant/Facility	Specific Generation T/T of Product	Quantity (TPA)	DISPOSAL
	Char (60% Ash)			Flyash generated from the power plant will be disposed to cement plants for PPC production Bottom ash will be disposed as aggregated for road construction in the area
	Bottom & Fly ash from Indian Coal fines (40% Ash)	0.252	102697	
	Bottom & Fly Ash from Char (60% Ash)	0.180	14719	
	Bottom & Fly ash from Indian Coal fines (40% Ash)	0.252	20539	
3	STEEL MELTING SHOP- SMS-I			Presently slag is disposed for filling low lying areas. After expansion, it will be used in the proposed Cement grinding unit
	BF dust/ Ferrous dust	0.10	14256	
	Slag	0.020	2851	
4	STEEL MELTING SHOP- SMS-II			Presently slag is disposed for filling low lying areas. After expansion, it will be used in the proposed Cement grinding unit
	BF dust/ Ferrous dust	0.10	26400	
	Slag	0.020	5280	
	Coal washery rejects			
5	PELLET PLANT			Recycled back to process
	Dust (Iron Ore, Coke, Coal Fines)	0.023	13584	
6	ROLLING MILL			Miss-Roll and End Cuts (100%) are/will be used in captive consumption in Steel Melting Shop as raw materials.
	Reject	2.5	12955	
	Mill Scale	1.0	5180	
7	FERRO ALLOY			100% Mill scale will be used for captive consumption in Ferro Alloys Plant as raw material. Ferro Alloy slag generated will be used in cement grinding unit.
	Slag from Si-Mn SAF	0.850	12750	
	Dust From SAF	0.800	12000	
	SINTER PLANT			
	Sinter Return Fines	0.250	110000	
8	BLAST FURNACE			Slag generated from the BF and SMS will be sent to slag granulation plant and to Slag Plant. Slag will be utilized for production of Portland slag cement and for GGBF production for disposal as product.
	Slag	0.350	105000	
	Dust Removed from Primary dust catchers & BF gas cleaning	0.020	6000	
	BF Gas	2.244	673050	
9	DUCTILE PIPE PLANT			Slag will be utilized for production of Portland slag cement and for GGBF production for disposal as product.
	Melting Skull/Slag	0.085	16947	
	Rejections	0.077	15471	
	Runner Sand Bag & Slag	0.088	17579	
10	BILL CASTER (EXISTING)			Recycled back to process
	Scrap	0.01	1425	
	Scale	0.01	1425	
11	BILL CASTER (PROPOSED)			Recycled back to process
	Scrap	0.01	4065	
	Scale	0.01	4065	
12	SLAG PLANT			-
	GGBS	1.000	329500	
	Ash	0.002	789	

HAZARDOUS WASTE GENERATION

S. No.	Type of Hazardous Waste	Hazardous Waste Category	Quantity	Disposal
Existing				
1.	Waste Oil/Spent Oil	Schedule – I, Cat. No. 5.1	3.0 kl/year	Sold to Authorized Recyclers.
2.	Resin	Schedule – I, Cat No. 35.2	0.50 Tonnes/Year	Used in DRI Kiln as per Authorization
Proposed quantity (total after expansion)				
1.	Waste Oil/Spent Oil	Schedule – I, Cat. No. 5.1	15.0 kl/year	Authorisation will be obtained for additional quantity for disposal
2.	Resin	Schedule – I, Cat No. 35.2	2.0 Tonnes/Year	

ISL has obtained consent for disposing the same to authorised recyclers vide CFO Ref no. 1442334 dated 04.08.2018 & 04.09.2018 valid upto 02.11.2023.

10.18.14 Public Consultation

Details of advertisement given	Notice made through advertisement in the Newspapers’’ Times of India.’’ (English News Paper) and Nayi Duniya & Krantikari Sanket (Hindi News Paper) on 29.06.2021 and 29.06.2021 respectively.
Date of public consultation	30.07.2021
Venue	Ground opposite to Ind Synergy Ltd., Kotmar and Mahupalli Villages, Raigarh Tehsil, Raigarh District, Chattishgarh State
Presiding Officer	Additional District Magistrate, Raigarh
Major issues raised	<ul style="list-style-type: none"> ❖ Proper Wages ❖ Road to be laid from Kotmar to Mauhapalli ❖ Employment to locals ❖ Sponsoring youth for Mechanic Training ❖ Renovation of Religious places

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

S. No	Details	Basis	Activity	Year 22-23	Year 23-24	Year 23-24	Total
1	Providing RO plants –200 Lit /Hr @ Rs 3 Lakh /Plant	Public Hearing and Need Based Requirement	Physical Nos	2	2	1	5
			@Village	Kotmar & Mauhapalli	Kotarliya & Siyarpalli	Patrapalli	
			Budget Rs Lakhs	6	6	3	15
2	Community Toilet	Public	Physical Nos	1	1	1	3

S. No	Details	Basis	Activity	Year 22-23	Year 23-24	Year 23-24	Total
	with Batch Facility with full-fledged water supply (with four WC facility and four Bath Rooms)	Hearing and Need Based Requirement	@Village Budget Rs Lakhs	Kotmar 15	Mauhapalli 15	Tilga 15	45
3	Providing assistance to Schools by providing LapTops	Need Based Requirement	Physical Nos @Village Budget Rs Lakhs	5 Kotmar 2.5	5 Mauhapalli 2.5	- - -	10 5.0
4	Providing rainwater harvesting Pits in coordination with Panchayats (10 pits in each village)	Need Based Requirement	Physical Nos @Village Budget Rs Lakhs	10 Kotmar 2.5	10 Mauhapalli 2.5	4 Kotarliya 1	24 6.0
4	Providing Borewells in consultation with Panchayat (Drilling and providing taps)	Need Based Requirement	Physical Nos @Village Budget Rs Lakhs	2 Kotmar 5.0	2 Mauhapalli 5.0	1 Kotarliya 2.5	5 12.5
5	Laying of Road 5 km length from Kotmar to Mauhapali with plantation on either side of Road @ 3 m distance with 3300 saplings	Public Hearing Demand	Physical Nos @Village Budget Rs Lakhs	5 km Road Kotmar - Mauhapalli 70			70.00
6	Construction of individual Toilets for 10 Houses	Need Based Requirement	Physical Nos @Village Budget Rs Lakhs	10 Kotmar 2.0	10 Mauhapalli 2.0	5 Dipapara 1.0	20 5.0
7	Renovation of Religious places	PH demand	Physical Nos @Village Budget Rs Lakhs	2 Kotmar 5	2 Mauhapalli 5	1 Siyarapali 2.5	4 12.5
8	Solar lights to villages on main streets (2 posts (4 lights) at each village)	Need Based Requirement	Physical Nos @Village Budget Rs Lakhs	2 Kotmar 2	2 Mauhapalli 2	2 Bhagora 2	6 6
9	Garbage collection vans – 4 numbers for each village	PH demand	Physical Nos @Village Budget Rs Lakhs	4 Kotmar 1	4 Mauhapalli 1	- - -	8 2
10	Community hall construction (100 persons occupancy)	Need Based Requirement	Physical Nos @Village Budget Rs Lakhs	1 Kotmar 5	1 Mauhapalli 5	- - -	2 10
11	Sponsoring youth for Mechanic Training in	Public Hearing	Physical Nos @Village	25 Kotmar, Mauhapalli and other villages within	25	-	50

S. No	Details	Basis	Activity	Year 22-23	Year 23-24	Year 23-24	Total
	the fields of electrical, welding, plumbing, auto mechanic – providing Tools – 50 persons (25 from each village) for 5 year	and Need Based Requirement	Budget Rs Lakhs	10 (for five years)	10 (for five years)	-	20 (for five years)
				3 km			
12	Construction of self help groups Welfare center in consultation and handing over to panchayat	Public Hearing and Need Based Requirement	Physical Nos @Village	1 Kotmar	1 Mauhapalli	-	2
			Budget Rs Lakhs	5	5	-	10
13	Construction of Market Yard – Platforms and Sheds in consultation with panchayat	Need Based Requirement	Physical Nos @Village	1 Kotmar	1 Mauhapalli	-	2
			Budget Rs Lakhs	5	5	-	10
Total (Rs Lakhs)							229

10.18.15 The estimated capital cost of the project for the proposed expansion is about Rs. 1491.5 Crores. The total capital cost of Environmental Management Plan which will be incurred for the revised configuration of the steel plant is estimated to be about Rs. 2035.2 Lakhs with annual recurring cost of Rs. 158.3 Lakhs. The existing plant is providing employment to about 533 people and on completion of the expansion, there will be addition of 1889 people. Locals will be preferred for employment. The details of cost for environmental protection measures is as follows:

S.NO.	ACTIVITIES	Capital Cost	Recurring Cost
1	Air Pollution Control measures ESPs, Bag Filters, dust extraction systems, stack etc.	700	15
2	Fugitive dust control measures – Vacuum Cleaner	75	3
3	Wastewater Management and Effluent Treatment Plant	200	15
4	Sewage Treatment Plant	50	5
5	Environmental Monitoring Program	460	47.30
6	Occupational Health Survey	50	5
7	Solid Waste Management	300	50
8	Noise Reduction Systems	50	5
9	Greenbelt Development in Plant – Gap filling	64	10
10	Rain Water Harvesting	50	3
11	Wild Life conservation plan	36.2	0
TOTAL		2035.2	158.3

10.18.16 ISL has developed greenbelt in an area of 34.2 Ha. M/s ISL has already planted around 80000 Nos. of trees. The required greenbelt as per norms is 33% of the plant area. Thick green belt of width of 10m along the boundary has been developed. Species are plated in consultation with the local DFO. ISL will increase the density of plantation from 1000 tree/ha to 2500 tree /ha by taking up gap plantation. Gap plantation will be completed within 3 years as per below program. The greenbelt program for the next five years is given below:

Location	No of saplings	Plants survived	Gap Sapling				Total Survived+ Gap Filling	Capital Cost Rs in Lakhs @Rs 100/sapling	Recurring Cost Rs in Lakhs @Rs 25/sapling
			2022-23	2023-24	2024-25	Total			
Along the Internal Roads, residential area.	3000	2000	1200	0	0	1200	3200	1.2	0.30
Along the Periphery of the premises	7600	4200	1000	1000	900	2900	7100	2.9	0.73
Along Internal road, residential area, open area	4400	2500	800	1000	0	1800	4300	1.8	0.45
Near ADM, Periphery of the premises	25000	13400	3000	3000	3500	9500	22900	9.5	2.38
Govt. land as well as railway land periphery (Project area)	40000	35000	4000	4000	5000	13000	48000	13	3.25
Total	80000	57100	10000	9000	9400	28400	85500	28.4	7.10

10.18.17 The proponent has mentioned that there is no court case/ show cause/ direction under EIA Notification to the project or related activity.

Certified Compliance report from Integrated Regional office

10.18.18 The Status of compliance of earlier EC was obtained from IRO, MOEF&CC, Raipur Vide No. 5-80/2009(Env)/346 dated 11.11.2021. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Raipur on 29.04.2022 and 28.06.2022. MoEF&CC (IRO), Raipur evaluated the same and has issued Report vide letter No. 5-80/2009(Env)/786 dated 01.07.2022. The details of the observations made by IRO in the report dated 01.07.2022 along with its re-assessment/present status as furnished by the PP is given as below:

S.No.	Observation reported on 11.11.2021 by IRO MoEF&CC	Compliance Status as on 28.06.2022	Observation Reported on 14.06.2022 / documents submitted on 29.04.2022 and 28.06.2022
i.	Online Ambient air quality monitoring stations has not been installed.	Installation and commissioning shall be done by 31st July 2022, well before previous projected date 30th November, 2022. Rs.33,57,500/ Lakhs advance payment has already been released for the earliest possible commissioning of the CAAQMS. A confirmation letter from the Vendor	It was informed that the process of procurement of CAAQMS is under process and PP has deposited amount Rs. 33,57,500/ Lakhs. The copy of same has been submitted to this office. PP assured that installation and commissioning shall be done by 31.07.2022.

S.No.	Observation reported on 11.11.2021 by IRO MoEFCC	Compliance Status as on 28.06.2022	Observation Reported on 14.06.2022 / documents submitted on 29.04.2022 and 28.06.2022
		for the installation and commissioning by 15th July 2022 is attached as Annx. A, for the ready reference.	
II	PP has not complied to the stipulated condition as Dolochar, Char and SMS slag were stored inside the plant. Heavy fugitive emission was observed for almost all the units inside the plant, Accumulation of dust was found on the internal roads of the plant and Housekeeping was found unsatisfactory (Specific Condition - V).	<p>MOU and PO for the Dolochar& SMS slag utilization has been executed. Copies of the MOUs and PO are attached as Annx. B.</p> <p>Rare Earth Drum (RED) Magnetic separator of Rs. 40 lakhs has been ordered to separate the magnetic particles from the char. Use of Demag Char in AFBC boilers enhances Campaign life thus utilization increases substantially. Annx C. Commissioning is expected by August 2022. After commissioning of the RED photographs shall be submitted. AFBC boiler DB Plate replacement with Sparge Hopper Arrangement is proposed, which shall enable to utilize Char in AFBC up to more than 60% of current utilization. Proposal and details are enclosed as Annx D. After DB Plate replacement with Sparge Hopper and utilization data along with commissioning photographs shall be submitted.</p> <p>Cost of the project is approx. 2.75 Cr.</p> <p>Photographs of Rag Filters and installation of Bag (liters shall be submitted after receiving and installation the Bag Filters Truck Mounted Vaccum Sweeper Machine. Industrial Vaccum Sweeper of Total Value of Rs.35,96,107 has been ordered. Expected to be delivered within a month. Purchase Order is enclosed as Annx.E.</p> <p>Dust Handling System of Rs. 71 lakhs has been installed and commissioned. Photographs. Purchase orders & details arc attached as Annx.F.</p>	<p>On the day of monitoring it has been observed that most of the dolochar and SMS slag has been removed by the PP, no dust has been observed on internal roads of the plant and housekeeping was found almost satisfactory. In addition to that PP has submitted MoU's and PO for dolochar and SMS slag unit to this office. In addition to that PP informed that AFBC boiler, DB plate replacement with Sparge Hopper Arrangement is proposed, which will enable to utilize Char in AFBC up to more than 60% of current utilization. The details of the same has been submitted to this office.</p> <p>PP also informed that they are replacing existing Bagfliters with new bagfliters and procurement of truck mounted vacuum sweeping machines is under process. The PO order of the same has been submitted to this office. PP assured to submit the compliance of the same to this office.</p>
iii.	ETP has not been installed as per stipulated condition.	The Effluent Treatment Plant - ETP will be commissioned by 30.04.2023. An undertaking in this regard is being submitted as Annx.G	It has been observed on the day of monitoring that the construction work of ETP was found under process. PP informed that ETP will be

S.No.	Observation reported on 11.11.2021 by IRO MoEFCC	Compliance Status as on 28.06.2022	Observation Reported on 14.06.2022 / documents submitted on 29.04.2022 and 28.06.2022
			commissioned by 30.04.2023. An undertaking in this regard has been submitted to this office.
IV	Solid waste stored inside the plant has not been utilized for sponge iron standards and AFBC boiler has not been installed.	<p>Regular Solid Waste Utilization for sponge iron standards shall be ensured.</p> <p>MOU and PO for the Dolochar& SMS slag utilization has been executed. Copies of the MOUs and PO are attached as Annx. B.</p> <p>Rare Earth Drum (RED) Magnetic separator of Rs. 40 lakhs has been ordered to separate the magnetic particles from the char. Use of Demag Char in AFBC boilers enhances Campaign life thus utilization increases substantially. Annx C. Commissioning is expected by August 2022. After commissioning of the RED photographs shall be submitted.</p>	<p>On the day of monitoring it has been observed that most of the dolochar and SMS slag has been removed by the PP, no dust has been observed on internal roads of the plant and housekeeping was found almost satisfactory. In addition to that PP has submitted Moll's and PO for dolochar and SMS slag unit to this office. In addition to that PP informed that AFBC boiler. DB plate replacement with Sparge Hopper Arrangement is proposed, which will enable to utilize Char in AFBC up to more than 60% of current utilization. The details of the same has been submitted to this office.</p> <p>PP also informed that they are replacing existing Bagfilters with new bagfilters and procurement of truck mounted vacuum sweeping machines is under process. The PO order of the same has been submitted to this office. PP assured to submit the compliance of the same to this office.</p>
V	Current plant layout indicating green belt covering 33 % of area has not been submitted.	An undertaking that total 103.65 Hectares of Land is currently under possession of Ind Synergy Ltd. and out of which, 33% (approx. 35 Hectare Land) is under Green Belt. Further Ind Synergy Ltd. undertakes that no additional land will be acquired for the proposed project expansion and existing 33% green Belt area (35 Hectare Land) shall neither be encroached, nor any tree felling will be done for the proposed expansion activities. Annexure H	PP has submitted an undertaking along with plant layout indicating 33% of green belt developed in the existing plant area to this office.
VI	The Conservation plan for the conservation of wild fauna has not been finalized by expediting the matter with the State Forest Department.	Final approval of the Conservation Plan of Rs. 36.20 Lakhs has been accorded by the office of the Chief Wild Life Warden, Raipur. Annexure 1.	PP has submitted a copy of final approval of the Conservation Plan of Rs. 36.20 Lakhs accorded by the office of the Chief Wild Life Warden, Raipur to this office.
vii.	Socio - economic development programs, educational programs ,	Details of socio - economic development activities proposed for 2022-23 is attached as Annexure - J.	PP has submitted expenditure details of public hearing and need based commitments action plan and budget

S.No.	Observation reported on 11.11.2021 by IRO MoEFCC	Compliance Status as on 28.06.2022	Observation Reported on 14.06.2022 / documents submitted on 29.04.2022 and 28.06.2022
	drinking water supply and health care etc have not been undertaken by PP.		of FY 2022-2023 to this office.
viii.	The funds for environment pollution control measures have not been earmarked and implementation schedule for implementing all the condition stipulated herein has also not been submitted.	Earmarked fund is being used for implementations of environmental aspects time to time on regular basis.	PP has submitted expenses details for environment management system for the FY 2022-2023 to this office.

Deliberation by the Committee

10.18.19 The Committee noted the following:

1. The Committee observed that the project proponent has not properly submitted the implementation status of the facilities granted vide EC dated 14.12.2006, 23.12.2008 vis-a-vis CTO dated 28.02.2020. The EAC advised to submit the revised information in separate columns for each of the permissions granted and the present production details as per the latest CTO granted by SPCB.
2. The PP has very casually prepared the Water balance diagram and not able to give satisfactory reply raised by EAC Members on proper utilization of Water in their Plant/Unit. They have also not taken into consideration further ETP development. The PP should take proper exercise and put their proposal in next EAC meeting.
3. Project Proponent to consider adopting nearby villages for socio-economic development and shall submit an affidavit with the name of the villages which will be adopted.
4. The Kharkhari River is very near i.e. 710 m from the project site. PP needs to submit the details of mitigation measures in this regard.
5. EAC also noted that the process of procurement of CAAQMS is under process and PP has deposited amount Rs. 33,57,500/ Lakhs. PP assured that installation and commissioning shall be done by 31.07.2022. In this context, PP needs to be submit the compliance on this subject.
6. The detailed Action Plan for the non-compliances of the EC conditions shall be submitted for further deliberations of the EAC.
7. Action plan on the issues raised during PH needs to be revised and the important activities has to be shifted in Year 1 as per MoEF&CC O.M. dated 30/09/2020.
8. Action plan for utilization of slag needs to be submitted.
9. The PP has to furnish details of respirable dust for coal dust exposures - concentrations measured in coal handling areas using personal/area air samplers. Report has to be furnished.

10. EAC also noted that the Consultant has only visited the site in year 2020. In this context, the EAC advised that the Consultant shall visit the project site and accordingly advise the PP on the implementation of the mitigation measures for compliances of EC conditions.

Recommendations of the Committee

- 10.18.20** In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** and sought requisite information on the points referred at para no. 10.18.19 above. The proposal shall be considered after submission of requisite information on Parivesh Portal.

Agenda No. 10.19

- 10.19** "Regularization of the existing project of Rolling Mill having capacity of MS Ingots of 80 TPD, MS Twisted Bar, Angle & Channel of 430 TPD and LSHS/gas Fired Re-Heating Furnace-22 TPH, Induction Furnace- 8TPH" by M/s Ashiana Ispat Limited, located at A-1116, Phase-III, RIICO Industrial Area, Bhiwadi, Tehsil-Tijara, Distt. Alwar, Rajasthan- Consideration of TOR [Project is in Critically Polluted Area and under the direction of the Commission for Air Quality Management in National Capital Region and Adjoining Areas].

[Proposal No. IA/RJ/IND/279065/2022; File No. IA-J-11011/216/2022-IA-II(IND-I)]
[Consultant: ENKAY ENVIRO SERVICES PVT. LTD., Valid upto 12.12.2023]

- 10.19.1** M/s. Ashiana Ispat Limited has made an application online vide proposal no. IA/RJ/IND/279065/2022 dated 25.07.2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No.3(a) Metallurgical Industries (Ferrous and Non/ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and attracts general condition due to Inter-state boundary of Rajasthan & Haryana lies at a distance 1.21 Km, NE and appraised at central level.
- 10.19.2** Name of the EIA consultant: M/s. Enkay Enviro Services Pvt. Ltd. [S.No. 112, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/RA 0183 valid till 12.12.2023; Rev. 24, July 05, 2022].

Details submitted by Project proponent

- 10.19.3** The project of M/s Ashiana Ispat Limited located in RIICO Industrial Area Bhiwadi, Tehsil - Tijara, District- Alwar, Rajasthan is for "Regularization of the existing project of Rolling Mill

having capacity of MS Ingots of 80TPD, MS Twisted Bar, Angle & Channel of 430 TPD and LSHS/gas Fired Re- Heating Furnace –22 TPH, Induction Furnace-8TPH”.

10.19.4 Environmental site settings:

S. No.	Particulars	Details				Remarks						
i.	Total land	Total plot Area is 13,495 Sq.m. (1.3495Ha) -RIICO Industrial land				There is no change in land use w.r.t. land allotted by RIICO.						
	S. No.	Land Use	Area (Sq.m)		Total area	Percentage (%)						
			Existing Area	Proposed Area								
	1.	Plant Area	9241.97	None	9241.97	68.48						
	2.	Paved Area (Road, Corridor,)	3785.66	None	3785.66	28.06						
	3.	Green Belt Area	467.37	-	467.37	3.46						
	4.	Open area	0.0	None	0.0	0.0						
	Total		13,495	--	13,495	100						
	Note*: The available Green area within the plant premises is 3.46%. About 36.54% green area will be developed by the proponent in consent with RIICO Office. The rest 36.54 % area will be planted outside the plant premises along the park of RIICO industrial area in the impact zone of the project.											
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Not Applicable as land is already converted for industrial use. (RIICO Industrial Area)				Existing project is already situated in Bhiwadi RIICO Industrial Area						
iii.	Existence of habitation & involvement of R&R, if any.	Project site: RIICO Industrial Area, Bhiwadi <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance(km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Harchandpur</td> <td>0.15</td> <td>N</td> </tr> </tbody> </table> Status of R&R : Not applicable				Habitation	Distance(km)	Direction	Harchandpur	0.15	N	Status of R&R :Not applicable as land is already converted for industrial use. (RIICO Industrial Area) there is no habitation in the existing area, therefore rehabilitation & resettlement plan is not required/applicable.
Habitation	Distance(km)	Direction										
Harchandpur	0.15	N										
iv.	Latitude and	Point	Latitude	Longitude	--							

S. No.	Particulars	Details			Remarks																																
	Longitude of all corners of the project site.	(1)	28°11'57.00"N	76°51'36.25"E																																	
		(2)	28°11'57.36"N	76°51'33.45"E																																	
		(3)	28°12'2.47"N	76°51'34.40"E																																	
		(4)	28°12'1.99"N	76°51'37.99"E																																	
		(5)	28°12'0.88"N	76°51'37.84"E																																	
		(6)	28°12'1.01"N	76°51'36.94"E																																	
v.	Elevation of the project site	The highest and lowest elevation of the project site is 268 MSL and 266 MSL			--																																
vi.	Involvement of Forest land if any.	The proposed project does not involved/fall in any forest land. Status of stage I Forest Clearance: Not Applicable Area of the forest land involve: Not Applicable			The land lies in RIICO Industrial area.																																
vii.	Water body (Rivers,Lakes, Pond,Nala,Natural Drainage,Canal etc.) exists within the project site as well as study area	Project site: No natural water bodies exist within the project site. Study Area:			--																																
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viii.	Existence of ESZ/ ESA/ national park/wildlife sanctuary/biosphere reserve/tiger reserve/ elephant reserve etc. if any within the study area	Nil List of Reserved and protected forests: Are given in the following table.																																			
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S. No.	Particulars	Details			Remarks
		Rahna Protected Forest	11.93	ESE	
		Choharpur Protected Forest	12.02	SE	
		Nurpur Protected Forest	12.03	SE	
		Biwan Reserved Forest	12.80	SE	
		Sonkh Protected Forest	12.80	SE	
		Palla Protected Forest	12.97	SE	
		Sadain Protected Forest	13.30	ESE	
		Palri Protected Forest	13.49	SE	
		Nalhar Protected Forest	14.68	SE	
		Milkpur Turk Protected Forest	14.90	SSE	

10.19.5 The existing project was accorded Consent to Establish. The proposal has been applied first time for obtaining Environmental Clearance as previously the project of Rolling Mill was not covered under the purview of Environmental Clearance under EIA Notification 2006. (Secondary metallurgical processing industries with Production ≤60,000 TPA). Latest Consent to Operate (Latest) for the existing unit was accorded by Rajasthan State Pollution Control Board vide letter no. F(CPM)/Alwar(Tijara)/3927(1)/2017-2018/1211-1213 dated 29.05.2018. The validity of CTO is up to 31.01.2023.

10.19.6 Implementation status of the existing CTE/CTO:

Date of application	Date of issue of consent	Particulars	Capacity	Valid up to
20.02.2006	17.06.2006	CTO for MS Twisted Bar, Angle & Channel and MS Ingots	60,000MTPA And 25,200MTPA	20.02.2006 TO 19.02.2009
24.04.2009	10.06.2009	CTE for Coal/gas Fired Reheating Furnace	--	24.04.2009 To 31.03.2012
6.10.2009	8.12.2009	CTO for Coal Gasification Unit for Heating Furnace(1 No.)	--	18.09.2009 To 31.01.2012
25.10.2008	18.01.2009	CTO for Renewal of MS Twisted Bar, Angle & Channel and MS Ingots	60,000MTPA and 25,200MTPA	20.02.2009 To 31.01.2012
20.07.2011	29.09.2012	CTO for Renewal of MS Twisted Bar, Angle &	60,000MTPA	01.02.2012 To

Date of application	Date of issue of consent	Particulars	Capacity	Valid up to
		Channel and MS Ingots	and 25,200MTPA	31.01.2015
13.08.2014	18.02.2016	CTO for Renewal of MS Twisted Bar, Angle & Channel and MS Ingots	60,000MTPA (180TPD) and 25,200MTPA (84TPD)	01.02.2015 To 31.01.2018
22.05.2015	18.02.2016	CTE for DG Set(1 No.)	250KVA	22.05.2015 To 30.04.2018
14.10.2016	07.07.2017	CTE for Expansion of 250 TPD MS Twisted Bar, Angle & Channel	from 60,000 TPA (180TPD to 1,35,000 TPA (430TPD)	05.11.2016 to 31.10.2021
27.09.2017	29.05.2018	CTO for Extension of MS Twisted Bar, Angle & Channel and MS Ingots	180TPD to 430 TPD and 80 TPD	01.02.2018 To 31.01.2023

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

S. No.	Product	Existing Capacity (MTPA)	Total Capacity (MTPA)
1.	MS Ingots/Billets	80TPD	80TPD
2.	MS CTD/TMT Bars & MS Round	430TPD	430TPD
3.	Induction Furnace (2 Nos)	8TPH	8TPH
4.	Heating Furnace	22 TPH	22 TPH

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

S. No.	Raw Material	Existing	Total	Source	Mode of transport
		Consumption			
1	MS Billets	455.940MT/Day	455.940MT/Day	Local	Transported by Trucks
2	MS scrap	84.338 MT/Day	84.338 MT/Day	Local	

S. No.	Raw Material	Existing	Total	Source	Mode of transport
		Consumption			
3	Coal	32kg/Ton/day	32kg/Ton/day	Local	
4	Gas (PNG)	(Proposed 10000m ³ /day)	10000m ³ /day	From Haryana gas agency	Through Pipe line

Note: Coal will not use in future. Machinery will run on PNG.

10.19.9 Existing one-time Water requirement is 116 m³/day, out of which 22 m³/day of fresh water requirement is being obtained from the ground water and permission for the same has been obtained from CGWA vide letter no. CGWA/NOC/IND/ORIG/2021/10155 dated 08.01.2021 & 18.0 KLD is drawn from RIICO water Supply with permission from RIICO and the remaining 76 m³ /day is being met from the Recycling.

10.19.10 Existing power requirement of 3200kVA (7062KW Sanctioned capacity) is obtained from JVVNL, Alwar from Ajantha chowk (1.5Km from the site)- GSS of 33KV.

10.19.11 The capital cost of the project is Rs 33.07 Crores and the capital cost for environmental protection measures is proposed as Rs 0.75 Crores. The employment generation from the existing project is 175.

10.19.12 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.

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

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
A. Air Environment				
Meteorological Wind Speed Wind Direction Max. Temperature Min. Temperature Relative Humidity Rain fall Solar radiation Cloud cover	1-site area in the project impact area- site area	One hourly continuous	Mechanical/Automatic Weather stations Max/ Min Thermometer Hygrometer Rain gauge As per IMD specifications	IS 5182 Part1-20 Site specific primary data is essential Secondary data from IMD
Pollutants Pollutants PM ₍₁₀₎ PM _(2.5)	8 locations Including Site	24 hourly twice a week	As per CPCB Guidelines (High-Volume with Cyclone)	IS 11255(Part 1):1985
SO ₂			Improved West &	IS 5182(Part

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
			Gaeke	2):2001
NO _x			Modified Jacob Hochheiser	IS 5182(Part 6):1975
CO		8 hourly twice a week	NDIR Method	IS 5182(Part 10):1999
B. Noise				
Hourly equivalent noise levels	8 locations including Project site.	Frequency Once in season	Integrated Sound Level Measurement Instrument, DT - 805 issued by Mextech	IS: 4954-1968 as adopted by CPCB. CPCB/ OSHA CPCB/ IS:5954-1968
Hourly equivalent noise levels	--	Once		
Hourly equivalent noise levels	Site	Once in season		
C. Water				
Parameters for water quality	8 locations Including Site	Once in season		
Colour (in hazen units)			Visual Method	IS : 3025 (P-4) 1983
Odour			Manual	IS : 3025 (P-5) 1983
Temperature °C			Thermometer	IS 3025(Part 9):1984
pH			pH meter	IS : 3025 (P-11)1983
Turbidity (NTU)			Nephelometer	IS 3025(Part 10):1984
Total Dissolved Solids (mg/l)			Gravimetric	IS : 3025 (P-16) 1984
Biochemical Oxygen Demand (mg/l)			DO consumption in 3 days at 27°C	IS : 3025 (P-44) 1993
Carbonate as CaCO ₃ (mg CaCO ₃ /l)			Titrimetric	IS 3025(Part 51):2001
Coliform (No./100 ml)			MPN	IS : 5401
Fecal Coliform			MPN	IS : 5401
Sodium as Na (mg/l)			Flame photometry	IS 3025(Part 45):1993
Potassium as K (mg/l)			Flame photometry	IS 3025(Part 45):1993

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
Chloride as Cl (mg/l)			Argentometric titration	IS 15210(Part 0/Sec 0):2002/ ISO 8762
Nitrite (mg N/L)			Colorometry	
Chemical Oxygen Demand (mg/l)			Potassium dichromate method	
Magnesium (mg CaCO ₃ /l)			EDTA Titrimetric	IS 3025(Part 46):1994
Sulphate (mg/l)			Turbidimetry	IS 3025(Part 24):1986
D. Land Environment				
Soil Texture pH Electrical Conductivity Bulk density Porosity Total organic carbon N, P, K, Zinc, Cd Chloride, Alkali metal, permeability, Water holding capacity, Cu, Iron as Fe, Moisture content, Boron as B	8 sample from project sit as well as nearby agriculture land.(soil samples has been collected as per BIS specifications)	Season wise	Collected and analyzed as per soil analysis reference book, M.I. Jackson and soil analysis reference book by C.A. Black	Once in a year.
Land use/ Landscape Location code Total project area Topography Drainage (Natural) Cultivated, forest, plantations, water bodies, roads and settlements		--	Global Positioning System Toposheet (1:50,000) Satellite Imagery* (1:50,000)	
E. Biological Environment				

Attributes & Parameters	Sampling		Measurement Method	Protocol						
	No. of stations	Frequency								
<table border="1"> <tr><td>Plants</td></tr> <tr><td>Butterflies</td></tr> <tr><td>Amphibians</td></tr> <tr><td>Reptiles</td></tr> <tr><td>Birds</td></tr> <tr><td>Mammals</td></tr> </table>	Plants	Butterflies	Amphibians	Reptiles	Birds	Mammals	--	Three- five days in each months	Quadrate sampling/ enumeration/ survey methods Transect method/ Visual encounter survey Visual encounter survey/ Opportunistic survey Visual encounter survey/ Opportunistic survey Point count/ Opportunistic survey Tracks / signs and visual encounter survey	Preliminary assessment point quarter plot-less method for terrestrial vegetation survey
Plants										
Butterflies										
Amphibians										
Reptiles										
Birds										
Mammals										
Fauna, Avian fauna, Rare and endangered species Sanctuaries/ National park/ Biosphere reserve/ Migratory routes.	--	--	--	Secondary data to be collected from Government offices, NGO's published literature.						
F. Socio-Economic Environment										
Demographic structure infrastructure resource base Economic resource base health status: Occupation pattern and cultural and	Socio- Economic observation will be based on random sampling method with access to the nearest habitation to the extent	One site visit and prior to the final submission of the project.	Primary data collection through questionnaire and interviews	Secondary data from census records, statistical hand-books, toposheets, health records and relevant official records available						

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
aesthetic attributes education	possible.			in public domain.

Deliberation by the Committee

10.19.14 The Committee noted the following:

- i. The instant proposal is for regularization of the existing project of Rolling Mill having capacity of MS Ingots of 80TPD, MS Twisted Bar, Angle & Channel of 430 TPD and LSHS/gas Fired Re- Heating Furnace –22 TPH, Induction Furnace-8TPH.
- ii. The proposal is for regularization of existing unit in compliance of MoEF&CC letter no. F. No. - IA-J-11013/24/2022-IA-II(I) dated 13.04.2022 to Rajasthan State Pollution Control Board and order of Hon'ble National Green Tribunal in O.A. no. 55/2019(WZ) in matter of Gajubha Jesar Jadeja vs Union of India & Ors. dated 12.02.2020 & Letter no. F. No. - IA-J-11013/24/2022-IA-II(I) dated 13.04.2022.
- iii. The Commission for Air Quality Management in National Capital Region and Adjoining Areas is opinion that air pollution is generated in the reheating furnaces of the Steel rolling mills and therefore made compulsory the use of clean fuel to control air pollution and improve air quality. Commission has issued various direction in GNCTD & NCR to switch over on PNG/LSHS (Low Sulphur Heavy Stock) by 30.09.2022.
- iv. The Ministry has issued a notification on 20th July 2022 and directed that all the standalone re-rolling units or cold rolling units, which are in existence and in operation as on the date of this notification, with valid CTE and CTO from the concerned SPCB/PCC, shall apply online for grant of Terms of Reference (ToR) followed by Environment Clearance and the said units shall be granted Standard Terms of Reference and shall be exempted from the requirement of public consultation, Provided that the application for the grant of ToR shall be made within a period of one year i.e. up to 19th July 2023.
- v. The EAC deliberated on the proposal. Based on the KML file presented by the PP, the proposed Unit is brown field project and the project was operational based on the CTE/CTO obtained from the State Pollution Control Board.
- vi. The EAC noted that the instant project comes under Critically Polluted Area (CPA). PP has committed the proposed mitigation measures and detailed action plan to be submitted in the EIA/EMP Report and documents submitted in Form 1.
- vii. The EAC also noted that the instant project is located at a distance of 1.21 Km, NE Inter-state boundary of Rajasthan & Haryana, hence PP has applied at the Central level as a Category 'A' project for obtaining EC under the provisions of the EIA Notification, 2006.
- viii. The existing greenbelt is 3.46%. About 36.54% green area will be developed by the proponent in consent with RIICO Office. The rest 36.54% area will be planted outside the plant premises along the park of RIICO industrial area in the impact zone of the project.

Recommendations of the Committee

10.19.15 After deliberations, the Committee **recommended** the project proposal for prescribing following **specific ToRs** for undertaking detailed EIA and EMP study, in addition to the generic ToRs enclosed at **Annexure-3 read with additional ToRs at Annexure-2:**

- (i) The implementation on the Direction issued by the Commission for Air Quality Management in National Region and Adjoining Areas.
- (ii) The implementation of the Action Plan/Mitigation measures as prescribed for the CPA, as the Unit is located in CPA.
- (iii) In compliance to Ministry's Notification vide S.O. 3250(E) dated 20th July, 2022, all the standalone re-rolling units or cold rolling units, which are in existence and in operation as on the date of this notification, with valid Consent to Establish (CTE) and Consent to Operate (CTO), applying for ToR within a period of one year i.e. up to 19th July 2023 shall be exempted from the requirement of public consultation. Therefore, in this case Public Consultation is exempted.
- (iv) The industry shall use CETP treated waste water for industrial processes to reduce the stress on Ground water resource as and when made available, accordingly the PP will incorporate the water balance in the EIA/EMP Report.
- (v) Ground water shall be abstracted only for the domestic water demand (drinking purpose only). PP shall explore the possibility of shifting to alternative source of water to meet the water requirement needs.
- (vi) The industry shall use PNG gas as per direction no. 64 of the Commission for Air Quality Management in National Region and Adjoining Areas by 30.09.2022.
- (vii) The Sahibi River along with Indori Nala, Sare Khurd Canal, Pond exists nearby of the project site. The PP shall submit the suitable steps /conservation plan along with contouring, Run -off calculations, disposal etc. As a river exist nearby of the project area, so a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided.
- (viii) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.
- (ix) Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. PP shall submit an action plan for gradual phasing out of ground water consumption and switching to alternative source of water.
- (x) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.

- (xi) PP should submit action plan for rainwater harvesting.
- (xii) Action plan for 100 % solid waste utilization shall be submitted.
- (xiii) Project proponent shall prepare layout plan showing all internal roads minimum 6m width and 9m turning radius with proper looping for smooth traffic flow, including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing.
- (xiv) Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.
- (xv) Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.
- (xvi) As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.
- (xvii) Action plan to limit the dust emission from all the stacks below 30 mg/Nm³ shall be furnished.
- (xviii) Action plan for fugitive emission control in the plant premises shall be provided.
- (xix) Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
- (xx) An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in atleast 40% of total area with a tree density of not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years.
- (xxi) An action plan for the disposal of electronic waste must be drawn up and implemented.

Agenda No. 10.20

10.20 Regularization of the existing project of Rolling Mill having existing capacity of TMT Bars- 79,800 TPA (Installed capacity -96000TPA) & existing 15MT Heating Furnace by M/s Petropol India Limited, located at Plot No. A 1121,1122, Plot B -815, 816A– RIICO Industrial Area, Phase-III, Bhiwadi, Tehsil-. Tijara, District- Alwar, Rajasthan Consideration of TOR. [Project is in Critically Polluted Area and under the direction of the Commission for Air Quality Management in National Capital Region and Adjoining Areas].

**[Proposal No. IA/RJ/IND/265441/2022; File No. IA-J-11011/123/2022-IA-II(IND-I)]
[Consultant: ENKAY ENVIRO SERVICES PVT. LTD., Valid upto 12.12.2023]**

10.20.1 M/s. Petropol India Limited has made an application online vide proposal no. IA/RJ/IND/265441/2022 dated 25.07.2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No.3(a) Metallurgical Industries (Ferrous and Non/ferrous) under Category “A” of the schedule of the EIA Notification, 2006 and attracts general condition due to Inter-state boundary of Rajasthan & Haryana lies at a distance 1.39 Km, E and appraised at central level.

10.20.2 Name of the EIA consultant: M/s. Enkay Enviro Services Pvt. Ltd. [S.No. 112, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/RA 0183 valid till 12.12.2023; Rev. 24, July 05, 2022].

Details submitted by Project proponent

10.20.3 The project of M/s Petropol India Limited located in RIICO Industrial Area Bhiwadi, Tehsil - Tijara, District- Alwar, Rajasthan State is for "Regularization of the existing project of Rolling Mill having capacity of TMT Bars of 79,800 TPA (Installed capacity -96000TPA) and Heating furnace-15MT”.

10.20.4 Environmental site settings:

S. No.	Particulars	Details	Remarks		
i.	Total land	Total plot Area is 22,337.5 Sq.m.(2.23375Ha) -RIICO Industrial land	There is no change is land use w.r.t. land allotted by RIICO.		
S. No.	Land Use	Area (Sq.m)		Total area	Percentage (%)
		Existing Area	Proposed Area		
1.	Plant Area	10467.74	None	10467.74	46.86

S. No.	Particulars	Details				Remarks																
2.	Paved Area (Road, Corridor,)	4305.33	None	4305.33	19.27																	
3.	Green Belt Area	2000	5564.43	7564.43	33.87																	
4.	Open area	None	None	None	--																	
Total		22337.5	--	22337.5	100																	
<p>Note*: The green area inside the premises is 33.87% (Existing + Proposed) due to land constraint. The unit will made an agreement with RIICO plantation. The rest 6.13% area will be planted outside the plant premises along the park of RIICO industrial area in the impact zone of the project. The RIICO has given permission for maintenance of park/plantation vide letter no. U(5)I/2021-22/5438 dated 09.03.2022.</p>																						
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Not Applicable as land is already converted for industrial use. (RIICO Industrial Area)			Existing project is already situated in Bhiwadi RIICO Industrial Area																	
iii.	Existence of habitation & involvement of R&R, if any.	<p>Project site: RIICO Industrial Area, Bhiwadi</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Harchandpur</td> <td>0.30</td> <td>E</td> </tr> </tbody> </table> <p>Status of R&R :Not applicable</p>			Habitation	Distance (km)	Direction	Harchandpur	0.30	E	Status of R&R :Not applicable as land is already converted for industrial use. (RIICO Industrial Area) there is no habitation in the existing area, therefore rehabilitation & resettlement plan is not required/ applicable.											
Habitation	Distance (km)	Direction																				
Harchandpur	0.30	E																				
iv.	Latitude and Longitude of all corners of the project site.		<table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>28°12'14.38"N</td> <td>76°51'22.82"E</td> </tr> <tr> <td>(2)</td> <td>28°12'14.07"N</td> <td>76°51'25.46"E</td> </tr> <tr> <td>(3)</td> <td>28°12'10.80"N</td> <td>76°51'25.26"E</td> </tr> <tr> <td>(4)</td> <td>28°12'10.79"N</td> <td>76°51'24.54"E</td> </tr> <tr> <td>(5)</td> <td>28°12'6.70"N</td> <td>76°51'24.00"E</td> </tr> </tbody> </table>	Point	Latitude	Longitude	(1)	28°12'14.38"N	76°51'22.82"E	(2)	28°12'14.07"N	76°51'25.46"E	(3)	28°12'10.80"N	76°51'25.26"E	(4)	28°12'10.79"N	76°51'24.54"E	(5)	28°12'6.70"N	76°51'24.00"E	--
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		(6)	28°12'7.27"N	76°51'18.57"E																																								
		(7)	28°12'9.74"N	76°51'20.31"E																																								
		(8)	28°12'12.85"N	76°51'20.56"E																																								
		(9)	28°12'12.74"N	76°51'22.57"E																																								
v.	Elevation of the project site	The highest and lowest elevation of the project site is 265 MSL and 263 MSL			--																																							
vi.	Involvement of Forest land if any.	The proposed project does not involved/fall in any forest land.			The land lies in RIICO Industrial area.																																							
vii.	Water body (Rivers,Lakes, Pond,Nala,Natural Drainage,Canal etc.) exists within the project site as well as study area	<p>Project site: No natural water bodies exist within the project site.</p> <p>Study Area:</p> <table border="1"> <thead> <tr> <th>Water Bodies</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Sahibi River</td> <td>10.13</td> <td>W</td> </tr> <tr> <td>Indori Nala</td> <td>5.66</td> <td>E</td> </tr> <tr> <td>Sare Khurd Canal</td> <td>6.30</td> <td>SE</td> </tr> <tr> <td>Sare Khurd water Reserviour</td> <td>10.24</td> <td>SE</td> </tr> <tr> <td>Nuh sub branch (Gurgaon Canal)</td> <td>14.50</td> <td>ESE</td> </tr> <tr> <td>Pataudi Distributary</td> <td>13.05</td> <td>NNW</td> </tr> <tr> <td>Nikhari Distributary</td> <td>12.83</td> <td>W</td> </tr> </tbody> </table>			Water Bodies	Distance	Direction	Sahibi River	10.13	W	Indori Nala	5.66	E	Sare Khurd Canal	6.30	SE	Sare Khurd water Reserviour	10.24	SE	Nuh sub branch (Gurgaon Canal)	14.50	ESE	Pataudi Distributary	13.05	NNW	Nikhari Distributary	12.83	W	--															
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viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	<p>Nil</p> <p>List of Reserved and protected forests: Are given in the following table.</p> <table border="1"> <thead> <tr> <th>Forests</th> <th>Distance(km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Gondhan Protected Forest</td> <td>2.21</td> <td>S</td> </tr> <tr> <td>Rangala Reserved Forest</td> <td>2.37</td> <td>NNE</td> </tr> <tr> <td>Banvan Protected Forest</td> <td>4.63</td> <td>SSE</td> </tr> <tr> <td>Protected Forest near village Banvan</td> <td>4.61</td> <td>SSW</td> </tr> <tr> <td>Chaupanki Protected Forest</td> <td>6.94</td> <td>SSE</td> </tr> <tr> <td>Sarekalan Protected Forest</td> <td>8.36</td> <td>SE</td> </tr> <tr> <td>Khorikalan Protected Forest</td> <td>8.49</td> <td>S</td> </tr> <tr> <td>Indaur Reserved Forest</td> <td>9.20</td> <td>SSE</td> </tr> <tr> <td>Guwalda Protected Forest</td> <td>10.26</td> <td>S</td> </tr> <tr> <td>Tapkan Protected Forest</td> <td>12.07</td> <td>ESE</td> </tr> <tr> <td>Kulawat Protected Forest</td> <td>12.40</td> <td>SE</td> </tr> <tr> <td>Rahna Protected Forest</td> <td>12.33</td> <td>ESE</td> </tr> </tbody> </table>			Forests	Distance(km)	Direction	Gondhan Protected Forest	2.21	S	Rangala Reserved Forest	2.37	NNE	Banvan Protected Forest	4.63	SSE	Protected Forest near village Banvan	4.61	SSW	Chaupanki Protected Forest	6.94	SSE	Sarekalan Protected Forest	8.36	SE	Khorikalan Protected Forest	8.49	S	Indaur Reserved Forest	9.20	SSE	Guwalda Protected Forest	10.26	S	Tapkan Protected Forest	12.07	ESE	Kulawat Protected Forest	12.40	SE	Rahna Protected Forest	12.33	ESE	
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S. No.	Particulars	Details			Remarks
		Choharpur Protected Forest	12.48	SE	
		Biwan Reserved Forest	13.23	SE	
		Sonkh Protected Forest	13.24	SE	
		Palla Protected Forest	13.41	SE	
		Sadain Protected Forest	13.70	ESE	
		Palri Protected Forest	14.42	SE	

10.20.5 The existing project was accorded Consent to Establish vide letter no. RPCB/R.O./BWD/OPR-31/2004-2005/3007 dated 20.01.2005. The proposal has been applied first time for obtaining Environmental Clearance as previously the project of Rolling Mill was not covered under the purview of Environmental Clearance under EIA Notification 2006. (Secondary metallurgical processing industries with Production \leq 60,000 TPA). Latest Consent to Operate (Latest) for the existing unit was accorded by Rajasthan State Pollution Control Board vide letter no. F(Tech)/Alwar(Tijara)/3935(1)/2017-2018/5496-5498 dated 13.09.2017. The validity of CTO was up to 30.06.2021. Renewal of CTO is applied and pending for want of Environmental Clearance.

10.20.6 Implementation status of the existing CTE/CTO:

Date of application	Date of issue of consent	Particulars	Capacity	Valid up to
19.01.2005	20.01.2005	CTE for M.S. CTD BARS	24,000 MTPA	Valid for three years from the date of issue of consent
02.01.2006	17.01.2006	CTO for M.S. CTD BARS	24,000 MTPA	02.01.2006 to 01.01.2007
01.02.2009	18.12.2009	CTE for establishment of Coal gasification Unit for Heating furnace(1 no.)	15TPH	Valid for three years from
30.10.2010	13.09.2011	CTO for M.S. CTD BARS	24,000 MTPA	01.01.2011 to 31.12.2013
05.09.2012	19.09.2013	CTE for expansion in capacity of MS CTD Bars & DG Set	80TPD to 266 TPD(24,000MT PA TO 80,000MTPA) and 125KVA	07.09.2012 to 31.08.2015
30.05.2016	13.09.2017	CTE for coal Pulverizers (2 no.s) & DG Set	500Kg/Hr each and 250KVA	25.07.2016 to 24.07.2017

Date of application	Date of issue of consent	Particulars	Capacity	Valid up to
28.05.2016	13.09.2017	CTO for expansion in capacity of MS CTD Bars & DG Set	80TPD to 266 TPD(24,000MT PA TO 80,000MTPA) and 125KVA	23.07.2016 to 30.06.2021
24.02.2021	-	Application for renewal of consent to operate is applied on 24.02.2021	--	--

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

S. No.	Product	Existing Capacity (TPA)	Total Capacity (TPA)
1.	TMT Bars	79,800 (Installed Capacity-96000)	79,800
2.	Gas/LSHS Fired Re-Heating Furnace	15TPH	15TPH

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

S. No.	Raw Material	Existing	Total	Source	Mode of transport
		Consumption			
(1)	MS Billets	84900TPA	84900TPA	Local	Transported by Trucks
(2)	Coal	70 kg/Ton/day	70 kg/Ton/day	Local	

*Note: The industry will shift on PNG before 30.09.2022. The agreement has been done with Haryana Gas Agency

10.20.9 Existing one time Water requirement is 295 m³/day, out of which 10 m³/day of fresh water is obtained from RIICO water supply, 13 m³/day of fresh water requirement is being obtained from the ground water and permission for the same has been obtained from CGWA vide letter no. CGWA/NOC/IND/ORIG/2021/10216 dated 09.01.2021, 72 m³/day is tanker supply and the remaining 200 m³/day is being met from the Recycling.

10.20.10 Existing power requirement of 2700kVA (3938KW Sanctioned capacity) is obtained from JVVNL, Alwar from nearest GSS Ajantha Chowk Bhiwadi-220KV.

10.20.11 The capital cost of the project is Rs 50.03 Crores and the capital cost for environmental protection measures is proposed as Rs 0.16 Crores. The employment generation from the existing project is 150.

10.20.12 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.

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

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
A. Air Environment				
Meteorological Wind Speed Wind Direction Max. Temperature Min. Temperature Relative Humidity Rain fall Solar radiation Cloud cover	1-site area in the project impact area- site area	One hourly continuous	Mechanical/Automatic Weather stations Max/Min Thermometer Hygrometer Rain gauge As per IMD specifications	IS 5182 Part1-20 Site specific primary data is essential Secondary data from IMD
Pollutants Pollutants PM ₍₁₀₎ PM _(2.5)	8 locations Including Site	24 hourly twice a week	As per CPCB Guidelines Gravimetric (High-Volume with Cyclone)	IS 11255(Part 1):1985
SO ₂			Improved West & Gaeke	IS 5182(Part 2):2001
NO _x			Modified Jacob Hochheiser	IS 5182(Part 6):1975
CO		8 hourly twice a week	NDIR Method	IS 5182(Part 10):1999
B. Noise				
Hourly equivalent noise levels	8 locations including Project site.	Frequency Once in season	Integrated Sound Level Measurement Instrument, DT - 805 issued by Mextech	IS: 4954-1968 as adopted by CPCB. CPCB/ OSHA CPCB/ IS:5954-1968
Hourly equivalent noise levels	--	Once		
Hourly equivalent noise levels	Site	Once in season		
C. Water				
Parameters for water quality	8 locations Including Site	Once in season		
Colour (in hazen)			Visual Method	IS : 3025 (P-4)

Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
units)				1983
Odour			Manual	IS : 3025 (P-5) 1983
Temperature °C			Thermameter	IS 3025(Part 9):1984
pH			pH meter	IS : 3025 (P-11)1983
Turbidity (NTU)			Nephelometer	IS 3025(Part 10):1984
Total Dissolved Solids (mg/l)			Gravimetric	IS : 3025 (P-16) 1984
Biochemical Oxygen Demand (mg/l)			DO consumption in 3 days at 27°C	IS : 3025 (P-44) 1993
Carbonate as CaCO ₃ (mg CaCO ₃ /l)			Titrimetric	IS 3025(Part 51):2001
Coliform (No./100 ml)			MPN	IS : 5401
Fecal Coliform			MPN	IS : 5401
Sodium as Na (mg/l)			Flame photometry	IS 3025(Part 45):1993
Potassium as K (mg/l)			Flame photometry	IS 3025(Part 45):1993
Chloride as Cl (mg/l)			Argentometriv titration	IS 15210(Part 0/Sec 0):2002/ ISO 8762
Nitrite (mg N/L)			Colorometry	
Chemical Oxygen Demand (mg/l)			Potassium dichromate method	
Magnesium (mg CaCO ₃ /l)			EDTA Titrimetric	IS 3025(Part 46):1994
Sulphate (mg/l)			Turbidimetry	IS 3025(Part 24):1986
D. Land Environment				
Soil Texture pH Electrical Conductivity Bulk density	8 sample from project sit as well as nearby agriculture land.(soil samples has been	Season wise	Collected and analyzed as per soil analysis reference book, M.I. Jackson and soil analysis	Once in a year.

Attributes & Parameters	Sampling		Measurement Method	Protocol										
	No. of stations	Frequency												
Porosity Total organic carbon N, P, K, Zinc, Cd Chloride, Alkali metal, permeability, Water holding capacity, Cu, Iron as Fe, Moisture content, Boron as B	collected as per BIS specifications)		reference book by C.A. Black											
Land use/ Landscape Location code Total project area Topography Drainage (Natural) Cultivated, forest, plantations, water bodies, roads and settlements		--	Global Positioning System Toposheet (1:50,000) Satellite Imagery* (1:50,000)											
E. Biological Environment														
<table border="1"> <tr><td>Plants</td></tr> <tr><td>Butterflies</td></tr> <tr><td>Amphibians</td></tr> <tr><td>Reptiles</td></tr> <tr><td>Birds</td></tr> <tr><td>Mammals</td></tr> </table>	Plants	Butterflies	Amphibians	Reptiles	Birds	Mammals	--	Three- five days in each months	<table border="1"> <tr><td>Quadrata sampling/ enumeration/ survey methods</td></tr> <tr><td>Transect method/ Visual encounter survey</td></tr> <tr><td>Visual encounter survey/ Opportunistic survey</td></tr> <tr><td>Visual encounter survey/ Opportunistic survey</td></tr> </table>	Quadrata sampling/ enumeration/ survey methods	Transect method/ Visual encounter survey	Visual encounter survey/ Opportunistic survey	Visual encounter survey/ Opportunistic survey	Preliminary assessment point quarter plot-less method for terrestrial vegetation survey
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Attributes & Parameters	Sampling		Measurement Method	Protocol
	No. of stations	Frequency		
			Point count/ Opportunistic survey	
			Tracks / signs and visual encounter survey	
Fauna, Avian fauna, Rare and endangered species Sanctuaries/ National park/ Biosphere reserve/ Migratory routes.	--	--	--	Secondary data to be collected from Government offices, NGO's published literature.
F. Socio-Economic Environment				
Demographic structure infrastructure resource base Economic resource base health status: Occupation pattern cultural and aesthetic attributes education	Socio- Economic observation will be based on random sampling method with access to the nearest habitation to the extent possible.	One site visit and prior to the final submission of the project.	Primary data collection through questionnaire and interviews	Secondary data from census records, statistical hand-books, toposheets, health records and relevant official records available in public domain.

Deliberation by the Committee

10.20.14 The Committee noted the following:

- i. The instant proposal is for regularization of the existing project of Rolling Mill having capacity of TMT Bars of 79,800 TPA (Installed capacity -96000TPA) and Heating furnace-15MT.
- ii. The proposal is for regularization of existing unit in compliance of MoEF&CC letter no. F. No. - IA-J-11013/24/2022-IA-II(I) dated 13.04.2022 to Rajasthan State Pollution Control Board and order of Hon'ble National Green Tribunal in O.A. no. 55/2019(WZ) in matter of Gajubha Jesar Jadeja vs Union of India & Ors. dated 12.02.2020 & Letter no. F. No. - IA-J-11013/24/2022-IA-II(I) dated 13.04.2022.
- iii. The Commission for Air Quality Management in National Capital Region and Adjoining Areas is opinion that air pollution is generated in the reheating furnaces of the Steel rolling mills and therefore made compulsory the use of clean fuel to control air pollution

and improve air quality. Commission has issued various direction in GNCTD & NCR to switch over on PNG/LSHS (Low Sulphur Heavy Stock) by 30.09.2022.

- iv. The Ministry has issued a notification on 20th July 2022 and directed that all the standalone re-rolling units or cold rolling units, which are in existence and in operation as on the date of this notification, with valid CTE and CTO from the concerned SPCB/PCC, shall apply online for grant of Terms of Reference (ToR) followed by Environment Clearance and the said units shall be granted Standard Terms of Reference and shall be exempted from the requirement of public consultation, Provided that the application for the grant of ToR shall be made within a period of one year i.e. up to 19th July 2023.
- v. The EAC deliberated on the proposal. Based on the KML file presented by the PP, the proposed Unit is brown field project and the project was operational based on the CTE/CTO obtained from the State Pollution Control Board.
- vi. The EAC noted that the instant project comes under Critically Polluted Area (CPA). PP has committed the proposed mitigation measures and detailed action plan to be submitted in the EIA/EMP Report and documents submitted in Form 1.
- vii. The EAC also noted that the instant project is located at a distance of 1.39 Km, E Interstate boundary of Rajasthan & Haryana, hence PP has applied at the Central level as a Category 'A' project for obtaining EC under the provisions of the EIA Notification, 2006.
- viii. The existing greenbelt is 33.87% (Existing + Proposed) due to land constraint. The unit will made an agreement with RIICO plantation. The rest 6.13% area will be planted outside the plant premises along the park of RIICO industrial area in the impact zone of the project. The RIICO has given permission for maintenance of park/plantation vide letter no. U(5)I/2021-22/5438 dated 09.03.2022.

Recommendations of the Committee

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

- (i) The implementation on the Direction issued by the Commission for Air Quality Management in National Region and Adjoining Areas.
- (ii) The implementation of the Action Plan/Mitigation measures as prescribed for the CPA, as the Unit is located in CPA.
- (iii) In compliance to Ministry's Notification vide S.O. 3250(E) dated 20th July, 2022, all the standalone re-rolling units or cold rolling units, which are in existence and in operation as on the date of this notification, with valid Consent to Establish (CTE) and Consent to Operate (CTO), applying for ToR within a period of one year i.e. up to 19th July 2023 shall be exempted from the requirement of public consultation. Therefore, in this case Public Consultation is exempted.

- (iv) The industry shall use CETP treated waste water for industrial processes to reduce the stress on Ground water resource as and when made available, accordingly the PP will incorporate the water balance in the EIA/EMP Report.
- (v) Ground water shall be abstracted only for the domestic water demand (drinking purpose only). PP shall explore the possibility of shifting to alternative source of water to meet the water requirement needs.
- (vi) The industry shall use PNG gas as per direction no. 64 of the Commission for Air Quality Management in National Region and Adjoining Areas by 30.09.2022.
- (vii) The Sahibi River alongwith Indori Nala and Sare Khurd Canal exists nearby of the project site. The PP shall submit the suitable steps /conservation plan along with contouring, Run -off calculations, disposal etc. As a river exist nearby of the project area, so a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided.
- (viii) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.
- (ix) Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. PP shall submit an action plan for gradual phasing out of ground water consumption and switching to alternative source of water.
- (x) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- (xi) PP should submit action plan for rainwater harvesting.
- (xii) Action plan for 100 % solid waste utilization shall be submitted.
- (xiii) Project proponent shall prepare layout plan showing all internal roads minimum 6m width and 9m turning radius with proper looping for smooth traffic flow, including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing.
- (xiv) Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.
- (xv) Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

- (xvi) As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.
- (xvii) Action plan to limit the dust emission from all the stacks below 30 mg/Nm³ shall be furnished.
- (xviii) Action plan for fugitive emission control in the plant premises shall be provided.
- (xix) Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
- (xx) An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in atleast 40% of total area with a tree density of not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years.
- (xxi) An action plan for the disposal of electronic waste must be drawn up and implemented.

Consideration in Modification/ Amendment in TOR Proposal

Agenda No. 10.21

10.21 Proposed Expansion Project by adding Iron Ore Beneficiation Plant - 0.6 MTPA, Sponge Iron 2 X 100 TPD, Induction Furnace 2 X 15 TPD, Rolling Mill 120000 TPA, Captive Power Plant 15 MW (WHRB – 8 MW + AFBC – 7 MW) by M/s. Bhadrashree Steel and Power Private Limited at Kunikeri village, Koppal Taluk & District, Karnataka – Amendment of Terms of Reference

**[Proposal No. IA/KA/IND/284655/2022, File No. IA-J-11011/45/2019-IA-II(I)]
[Consultant: Ardra Consulting Services Pvt. Ltd; Valid upto 29.12.2022]**

10.21.1 M/s. Bhadrashree Steel and Power Ltd. has made an application online vide proposal no. IA/KA/IND/284655/2022 dated 23.07.2022 along with Form 3, revised Form-1 and revised PFR seeking amendment in Terms of Reference accorded by the Ministry vide letter no. IA-J-11011/45/2019-IA.II(I) dated 15.12.2020. 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 and appraised at central level.

10.21.2 Name of the EIA consultant: M/s. Ardra Consulting Services Pvt. Ltd. [S No 96, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/1922/IA0055 valid till 29.12.2022; Rev. 24, July 05, 2022].

Details submitted by Project proponent

10.21.3 M/s. Bhadrashree Steel and Power Ltd. had earlier applied for grant of ToR vide proposal no. IA/KA/IND/91002/2019 dated 09.01.2019 for Proposed Expansion Project by adding Iron Ore Beneficiation Plant -0. 6 MTPA, Sponge Iron 2 X 100 TPD, Induction Furnace 2 X 15 TPD, Rolling Mill 120000 TPA, Captive Power Plant 15 MW (WHRB – 8 MW + AFBC – 7 MW) by M/s. Bhadrashree Steel and Power Private Limited at Kunikeri village, Koppal Taluk & District, Karnataka. The aforesaid proposal was initially considered in 4th meeting of the Re-constituted EAC (Industry-I) held during 20-22nd February, 2019 and reconsidered during 25th meeting of the Re-constituted EAC (Industry-I) held during 25-27th November, 2020. Accordingly, TOR was issued vide letter no. IA-J-11011/45/2019-IA.II(I) dated 15.12.2020.

10.21.4 The instant proposal is for seeking amendment in ToR dated 15.12.2020 with respect to revised plant configuration and capacity through enhancement of the production capacity by optimizing the configuration capacities of Induction Furnace, Captive Power Plant and Rolling Mill, with dropping the Beneficiation proposal from the Existing TOR configuration within the Existing Sponge Iron Plant.

10.21.5 Changes in configuration & capacity of units in granted ToR vis-à-vis with proposed ToR are as follows:

S. No.	Unit	Existing Configuration	As per TOR dated 15.12.2020	Proposed Amendment / change in configuration	Final Configuration after proposed amendment	Justification by PP
1	Sponge Iron plant	2 X 100 TPD	2 X 100 TPD	Addition of 2 x 100 TPD	2 X 100 TPD + 2 X 100 TPD = 400 TPD	There is no Change
2	Captive Power Plant	Nil	15 MW (WHRB – 8 MW & AFBC – 7 MW)	19 MW (WHRB – 9 MW & AFBC – 10 MW)	19 MW (WHRB – 9 MW & AFBC – 10 MW)	The WHRB is maximized with 2.25 per 100 TPD furnace and total consumption of Dolochar with additional washed coal AFBC capacity is enhanced to 10 MW.
3	Induction Furnace	Nil	2 X 15 T	2x20 T	2 X 20 T	With the same installation foot print 20 T furnace can be

S. No.	Unit	Existing Configuration	As per TOR dated 15.12.2020	Proposed Amendment / change in configuration	Final Configuration after proposed amendment	Justification by PP
						set up instead of 15 T
4	Beneficiation Plant	--	0.6 MTPA	To be dropped	-	Due to shortage of water and restrictive ground water drawl, this is been dropped.
5	Rolling Mill	Nil	120000 TPA	Addition of 25000 TPA	145000 TPA	Due to enhanced capacity of hot metal from IF the capacity is optimized.

10.21.6 Changes in the Raw Material Requirement:

Sr. No.	Particulars	As per TOR dated 15.12.2020 (TPA)	After proposed modification (TPA)	Source	Mode of Transportation
1	Iron Ore	96000	1,37,280	Bellary Mines	Truck By Road
2	Indian Washed Coal	72000	35,000	Chandrapur Maharashtra	Truck by Road
3	Coke		8,400	Imported from Australia	By Rail & Truck by Road
4	Imported Coal		16,400	Imported from South Africa	By Rail & Truck by Road
5	Dolomite	3000	5,840	Maharashtra	Trucks By Road
6	IO Pellet	-	89,600	Karnataka & Odisha	Trucks By Road
7	Pig Iron	-	14,500	Odisha	By Rail / Trucks By Road
8	Iron Scrap	11250	72,400	Maharashtra & Karnataka	Trucks By Road

10.21.7 Other changes proposed in ToR:

SL. NO.	Type	As per TOR dated 15.12.2020	After proposed modification	Source	Mode
1	Water Requirement	62500 KLD	915 KLD (880 Industrial + 35 Domestic)	Bore well	Pipe line
2	Power/ Energy	15 MW	20.10 MW	Captive Power Plant (19 MW) + GRID (1.1 MW)	-
3	Cost of the Project	Rs. 225.28 Crores	Rs. 219.35 Crores	-	-

10.21.8 Reason for seeking amendment in ToR: Based on Financial Analysis of the project in the present scenario, management decided to optimize the proposed plant capacity to maximize production and profitability. Due to land constraint, the proposal for beneficiation plant is dropped, instead of 2 X 15 TPH of IF in SMS; 2 X 20 TPH of IF with CCM followed by Rolling Mill is decided for space optimization. Further, to optimize the usage of Dolochar and extraction from waste heat, the Captive power generation can be changed to 10 MW AFBC with 9 MW WHRB from DRI.

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

Deliberation by the Committee

10.21.10 The Committee noted the following:

- i. ToR was issued to M/s. Bhadrashree Steel and Power Ltd. *vide* letter no. IA-J-11011/45/2019-IA.II(I) dated 15.12.2020.
- ii. The EAC noted that based on Financial Analysis of the project in the present scenario, management decided to optimize the proposed plant capacity to maximize production and profitability.
- iii. The instant proposal is for seeking amendment in said ToR with respect to revised plant configuration/facility/capacity and other changes as detailed in para 10.21.5, 10.21.6 and 10.21.7 above.
- iv. The EAC noted that there is a significant reduction in water requirement from 62500 KLD to 915 KLD due to dropping of Beneficiation Plant from the proposed project.
- v. The EAC noted that 915 KLD of water requirement will be met from Bore well.

Recommendations of the Committee

10.21.11 After deliberations, the Committee **recommended** the project proposal for amendment in Terms of Reference no. IA-J-11011/45/2019-IA.II(I) dated 15.12.2020 with respect to revised plant configuration/facility/capacity and other changes as detailed in para 10.21.5, 10.21.6 and 10.21.7 above.

Consideration in correction in the Minutes of Meeting

Agenda No. 10.22

10.22 Green Field Project 2.2 MTPA Integrated Steel Plant at Khasra No. 746, 747, 1320, 1322/1 and 1322/3, Village- Sarora, Tahsil- Tilda, District- Raipur, Chhattisgarh by M/s Godawari Power & Ispat Limited– Modification of Minutes of Meeting for Consideration of TOR.

**[Proposal No. IA/CG/IND/263125/2022; File No. IA-J-11011/25/2022-IA-II(IND-I)]
[M/s. Pollution and Ecology Control Services; valid upto 16.10.2022]**

The project of M/s. Godawari Power and Ispat Limited located at Khasra No. 746, 747, 1320, 1322/1 and 1322/3, Village- Sarora, Tahsil- Tilda, District- Raipur, Chhattisgarh is for proposed greenfield Integrated Steel Plant [Beneficiation Plant- 2 x 1.8 MTPA, Pellet Plant- 2 x 1.5 MTPA, Coke Oven Plant 2 x 0.4 MTPA, Sinter Plant- 1 x 1.2 MTPA, Blast Furnace- 2 x 1.0 MTPA, Steel Melting Shop (BOF/ZPF- 2 x 1.1 MTPA, LRF- 2 X 1.1 MTPA), VD/Vod- 1 X 1.1 MTPA, Billet Caster- 1 x 0.6 MTPA, Slab Caster- 1 X 1.0 MTPA, Slab Caster- 1 x 1.8 MTPA, Long Product Mill- 1 x 0.6 MTPA, Hot Strip Mill- 1 x 1.0 MTPA, Hot Strip Mill- 1 x 1.8 MTPA, Oxygen Plant (VPSA- 2 x 350 TPD, Cryogenic- 2 x 325 TPD, Cold Rolled Complex, Power Plant 330 MW, Lime or Dolo Plant 2x350 TPD, Ferro Alloy Plant 6x9 MVA].

The proposal of TOR was earlier recommended in the 8th meeting of the EAC for Industry-I sector held on 23-24th June, 2022. Accordingly, the Ministry has issued the TOR on 22.07.2022 with a additional specific condition, “*Cumulative impact assessment shall be carried out keeping in view the phase-wise proposed development of the project including the impact on riverine ecology of the Shivrath River, as the PP proposes the drawl of water from the River so it could impact the water availability and resulting impact on ecology of River*”. The EAC has taken a note in this regard.

The Meeting ended with thanks to the Chair.

**Standard ToR in line with Appendix III of the EIA, 2006.
applicable to Proposals Under Industry-1 Sector [With PH]**

Preliminary requirements:

- i. EIA/EMP report cover page shall consist of project title with location, applicable schedule of the EIA Notification, 2006, ToR letter No. with date, study period along with EIA consultant & laboratory details with QCI/NABET/NABL accreditation certificate detail.
- ii. Besides, following points shall be compiled as per QCI/NABET norms:
 - a. Disclaimer by the EIA consultant.
 - b. Declaration by the Functional Area Experts contributed to the EIA study and declaration by the head of the accredited consultant organization/authorized person.
 - c. Undertaking by the project proponent owning the contents (information and data) of the EIA/EMP report.
 - d. Undertaking by the EIA consultant regarding compliance of ToR issued by MoEF&CC.
 - e. Consultant shall submit the Plagiarism Certificate for the EIA/EMP Report.

Structure of EIA/EMP report**Executive Summary**

- i. Table of Contents of the EIA report including list of tables/figures/annexures/abbreviations/symbols/notations.
- ii. Point wise compliance to the ToR issued by MoEF&CC.
- iii. Executive Summary
 - I. Introduction
 - i. Name of the project along with applicable schedule and category as per EIA, 2006.
 - ii. Location and accessibility
 - II. Project description
 - i. Resource requirements (Land; water; fuel; manpower)
 - ii. Operational activity
 - iii. Key pollution concerns
 - III. Baseline Environment Studies
 - i. Ambient air quality
 - ii. Ambient Noise quality
 - iii. Traffic study
 - iv. Surface water quality
 - v. Ground water quality
 - vi. Soil quality
 - vii. Biological Environment
 - viii. Land use
 - ix. Socio-economic environment
 - IV. Anticipated impacts

- i. Impact on ambient air quality
 - ii. Impact on ambient noise quality
 - iii. Impact on road and traffic
 - iv. Impact on surface water resource and quality
 - v. Impact on ground water resource and quality
 - vi. Impact on terrestrial and aquatic habitat
 - vii. Impact on socio-economic environment
- V. Alternative analysis
- VI. Environmental Monitoring program
 - i. Ambient air, noise, water and soil quality
 - ii. Emission and discharge from the plant
 - iii. Green belt
 - iv. Social parameters
- VII. Additional studies
 - i. Risk assessment
 - ii. Public consultation
 - iii. Action plan to address the issues raised during public consultation as per MoEF&CC O.M. dated 30/09/2020
- VIII. Project benefits
- IX. Environment management plan
 - i. Air quality management plan
 - ii. Noise quality management plan
 - iii. Solid and hazardous waste management plan
 - iv. Effluent management plan
 - v. Storm water management plan
 - vi. Occupational health and safety management plan
 - vii. Green belt development plan
 - viii. Socio-economic management plan
 - ix. Project cost and EMP implementation budget.

EIA/EMP Report

1. Introduction

- i. Background about the project
- ii. Need of the project
- iii. Purpose of the EIA study
- iv. Scope of the EIA study

2. Project description

A. Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State.
- ii. Site accessibility
- iii. A digital toposheet in pdf or shape file compatible to google earth of the study area of radius of 10km and site location preferably on 1:50,000 scale. (including all eco-sensitive areas and environmentally sensitive places).

- iv. Latest High-resolution satellite image data having 1 m - 5 m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary co-ordinates. Area must include at least 100 m all around the project location.
- v. Environment settings of the site and its surrounding along with map.
- vi. A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.
- vii. In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.
- viii. In case if the project site is in vicinity of the river, the industry shall not be located within the river flood plain corresponding to one in 25 years flood, as certified by concerned District Magistrate/Executive Engineer from State Water Resources Department (or) any other officer authorized by the State Government for this purpose as per the provisions contained in the MoEF&CC Office Memorandum dated 14/02/2022.
- ix. In case of canal/ nala/ seasonal drain and any other water body passing through project site, the PP shall submit the suitable steps /conservation plan/mitigation measures along with contouring, Run -off calculations, disposal etc. A robust and full proof Drainage Conservation scheme to protect the natural drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided in the report.
- x. Type of land, land use of the project site needs to be submitted.
- xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process as per the MoEF&CC O.M. dated 7/10/2014 shall be furnished.
- xii. Project proponent shall prepare Engineering layout plan showing all internal roads minimum 6 m width and 9 m turning radius for smooth traffic flow inside including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- xiii. Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including Rain Water Harvesting details with calculations mentioning about GW recharge along with relevant drawing.
- xiv. A detailed report covering all aspects of Fire Safety Management and Fire Emergency Plan shall be submitted.
- xv. Details of drone survey for the site, needs to be included in report and presented before the EAC during appraisal of the project.

B. Forest and wildlife related issues (if applicable):

- i. Status of Forest Clearance for the use of forest land shall be submitted.
- ii. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10 km radius of national park/sanctuary wherein final ESZ notification is not in place as per MoEF&CC Office Memorandum dated 8/8/2019.
- iii. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.
- iv. Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna along with budget and action plan, if any exists in the study area.

C. Salient features of the project

- i. Products with capacities in **Tons per Annum** for the proposed project.
- ii. If expansion project, status of implementation of existing project, details of existing/proposed products with production capacities in Tons per Annum.
- iii. Site preparatory activities.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other than raw materials, other chemicals and materials required with quantities and storage capacities.
- vi. Manufacturing process details along with process flow diagram of proposed units.
- vii. Consolidated materials and energy balance for the project.
- viii. Total requirement of surface/ ground water and power with their respective sources, status of approval.
- ix. Water balance diagram
- x. Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase.
- xi. Man-power requirement.
- xii. Cost of project and scheduled time of completion.
- xiii. In case of expansion projects, project proponent shall submit structural stability certificate showing whether existing structure withstand for proposed expansion activity.
- xiv. Brief on present status of compliance (Expansion/modernization proposals)
 - a. Cumulative Environment Impact Assessment for the existing as well as the proposed expansion/modernization shall be carried out.
 - b. In case of ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next two years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source.
 - c. Copy of all the Environment Clearance(s) including Amendments/validity of extension/transfer of EC, there to obtained for the project from MoEF&CC/SEIAA shall be attached as Annexures. A Certified Compliance

Report (CCR) of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change/ or concerned authority as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022 on the status of compliance of conditions stipulated in all the existing environment clearances including amendments shall be provided. A Certified Compliance Report (CCR) issued by the concerned Authority shall be valid for a period of one year from the date of inspection.

- d. In case the existing project has not obtained Environment Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. A proper justification needs to be submitted along with documentary proof. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 1994 or 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of CTO from the Regional Office of the SPCB shall be submitted, as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022. CCR on CTO conditions issued by the concerned SPCBs/PCCs shall be valid for a period of one year from the date of inspection of the project.

3. Description of the Environment

- i. Study period
- ii. Approach and methodology for data collection as furnished below.

Attributes	Sampling		Remarks
	Network	Frequency	
A. Air Environment			
Micro-Meteorological <ul style="list-style-type: none"> • Wind speed (Hourly) • Wind direction • Dry bulb temperature • Wet bulb temperature • Relative humidity • Rainfall • Solar radiation • Cloud cover • Environmental Lapse Rate 	Minimum 1 site in the project impact area	1 hourly continuous	<ul style="list-style-type: none"> • IS 5182 Part 1-20 • Site specific primary data is essential • Secondary data from IMD, New Delhi • CPCB guidelines to be considered.
Pollutants <ul style="list-style-type: none"> • PM_{2.5} • PM₁₀ • SO₂ • NO_x • CO 	At least 8-12 locations	As per National Ambient Air Quality Standards,	<ul style="list-style-type: none"> • Sampling as per CPCB guidelines • Collection of AAQ data (except in monsoon season) • Locations of various

Attributes	Sampling		Remarks
	Network	Frequency	
<ul style="list-style-type: none"> • HC • Other parameters relevant to the project and topography of the area 		CPCB Notification.	<p>stations for different parameters should be related to the characteristic properties of the parameters.</p> <ul style="list-style-type: none"> • The monitoring stations shall be based on the NAAQM standards as per GSR 826(E) dated 16/11/2009 and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests, • Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAAQM Notification of 16/11/2009 along with min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
B. Noise			
<ul style="list-style-type: none"> • Hourly equivalent noise levels 	At least 8-12 locations	As per CPCB norms	-
C. Water			
<p>Parameters for water quality</p> <ul style="list-style-type: none"> • pH, temp, turbidity, magnesium hardness, total alkalinity, 	<p>Samples for water quality should be collected and analyzed as per:</p> <ul style="list-style-type: none"> • IS: 2488 (Part 1-5) methods for sampling and testing of Industrial effluents • Standard methods for examination of water and 		

Attributes	Sampling		Remarks
	Network	Frequency	
chloride, sulphate, nitrate, fluoride, sodium, potassium, salinity <ul style="list-style-type: none"> Total nitrogen, total phosphorus, DO, BOD, COD, Phenol Heavy metals Total coliforms, faecal coliforms Phyto-plankton Zoo-plankton Microalgae/microalgal bloom 	wastewater analysis published by American Public Health Association.		
For River Bodies <ul style="list-style-type: none"> Total Carbon pH Dissolved Oxygen Biological Oxygen Demand Free NH₄ Boron Sodium Absorption Ratio Electrical Conductivity TDS 	<ul style="list-style-type: none"> Surface water quality of the nearest River (60m upstream and downstream) and other surface water bodies 	<ul style="list-style-type: none"> Yield of water sources to be measured during critical season Standard methodology for collection of surface water (BIS standards) 	
For Ground Water	<ul style="list-style-type: none"> Ground water monitoring data should be collected at minimum of 8 locations (from existing wells /tube wells/existing current records) from the study area and shall be included. 		
D. Traffic Study			
<ul style="list-style-type: none"> Type of vehicles Frequency of vehicles for transportation of materials Additional traffic due to proposed project Parking arrangement 	-		
E. Land Environment			
Soil	Soil samples be collected as per BIS specifications		

Attributes	Sampling		Remarks
	Network	Frequency	
<ul style="list-style-type: none"> • Particle size distribution • Texture • pH • Electrical conductivity • Cation exchange capacity • Alkali metals • Sodium Absorption Ratio (SAR) • Permeability • Water holding capacity • Porosity 			
<p>Land use/Landscape</p> <ul style="list-style-type: none"> • Location code • Total project area • Topography • Drainage (natural) • Cultivated, forest, plantations, water bodies, roads and settlements 	-		
E. Biological Environment			
<p>Aquatic</p> <ul style="list-style-type: none"> • Primary productivity • Aquatic weeds • Enumeration of phyto plankton, zoo plankton and benthos • Fisheries • Diversity indices • Trophic levels • Rare and endangered species • Marine Parks/ Sanctuaries/ closed areas /coastal regulation zone (CRZ) <p>Terrestrial</p> <ul style="list-style-type: none"> • Vegetation-species list, economic 			<ul style="list-style-type: none"> • Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. Indicator species which indicate ecological and environment degradation should be identified and included to clearly state whether the proposed project would result in to any adverse effect on any species. • Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site. • For forest studies, direction of wind should be considered while selecting forests. • Secondary data to collect from Government offices, NGOs, published literature.

Attributes	Sampling		Remarks
	Network	Frequency	
importance, forest produce, medicinal value <ul style="list-style-type: none"> • Importance value index (IVI) of trees • Fauna • Avi fauna • Rare and endangered species • Sanctuaries / National park / Biosphere reserve • Migratory routes 			
F. Socio-economic			
<ul style="list-style-type: none"> • Demographic structure • Infrastructure resource base • Economic resource base • Health status: Morbidity pattern • Cultural and aesthetic attributes • Education 			<ul style="list-style-type: none"> • Socio-economic survey is based on proportionate, stratified and random sampling method. • Primary data collection through questionnaire • Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. agencies

iii. Interpretation of each environment attribute shall be enumerated and summarized as given below:

- Ambient air quality
- Ambient Noise quality
- Surface water quality
- Ground water quality
- Soil quality
- Biological Environment
- Land use
- Socio-economic environment

4. Anticipated Environment Impacts and mitigation measures (In case of expansion, cumulative impact assessment shall be carried out)

i. Identification of potential impacts in the form of a **matrix** for the construction and operation phase for all the environment components

Activity	Environment	Ecological	Socio-economic
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Construction phase			
Operation phase			

- ii. Impact on ambient air quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
 - Details of stack emissions from the existing as well as proposed activity.
 - Assessment of ground level concentration of pollutants from the stack emission based on AQIP Modelling The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any along with wind rose map for respective period
 - Impact on ground level concentration, under normal, abnormal and emergency conditions. Measures to handle emergency situations in the event of uncontrolled release of emissions.
- iii. Impact on ambient noise quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- iv. Impact on traffic (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- v. Impact on soil quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- vi. Impact on land use (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- vii. Impact on surface water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- viii. Impact on ground water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- ix. Impact on terrestrial and aquatic habitat (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase

- b. Operation phase
- x. Impact on socio-economic environment (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- xi. Impact on occupational health and safety (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase

5. Analysis of Alternatives (Technology & Site)

- i. No project scenario
- ii. Site alternative
- iii. Technical and social concerns
- iv. Conclusion

6. Environmental Monitoring Program

- i. Details of the Environment Management Cell
- ii. Performance monitoring schedule for all pollution control devices shall be furnished.
- iii. Corporate Environment Policy
 - a. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - b. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environment or forest norms / conditions? If so, it may be detailed in the EIA.
 - c. What is the hierarchical system or Administrative order of the company to deal with the environment issues and for ensuring compliance with the environment clearance conditions? Details of this system may be given.
 - d. Does the company have system of reporting of non compliances / violations of environment norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
- iv. Action plan for **post-project environment monitoring matrix**:

Activity	Aspect	Monitoring Parameter	Location	Frequency	Responsibility
Construction phase					
Operation phase					

7. Additional Studies

- i. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage after

offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

- ii. Details of adoption/ implementation status/plan to achieve the goal of Glasgow COP26 Climate Submit with regard to enhance the non-fossil energy, use of renewable energy, minimization of net carbon emission and carbon intensity with long-term target of “net Zero” emission.
- iii. Implementation status/measures adopted for avoiding the generation of single used plastic waste.
- iv. In cases the project is located in Critically and Severely Polluted Areas, additional mitigation measures adopted and detailed action plan to be submitted in the EIA/EMP Report as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-23/2028-IA.III dated 5/07/2022 has to be submitted.
- v. Public consultation details (Entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings).
- vi. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.
- vii. Summary of issues raised during public consultation along with action plan to address the same as per MoEF&CC O.M. dated 30/09/2020

S N o	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. in Crores)
	Name of the Activity	Physical Targets	1 st	2 nd	3 rd	

viii. Risk assessment

- Methodology
- Hazard identification
- Frequency analysis
- Consequence analysis
- Risk assessment outcome

ix. Emergency response and preparedness plan

8. Project Benefits

- i. Environment benefits
- ii. Social infrastructure
- iii. Employment and business opportunity
- iv. Other tangible benefits

9. Environment Cost Benefit Analysis

- i. Net present value
- ii. Internal rate of return
- iii. Benefit cost ratio
- iv. Cost effectiveness analysis

10. Environment Management Plan (Construction and Operation phase)

- i. Air quality management plan
- ii. Noise quality management plan
- iii. Action plan for hazardous waste management
- iv. Action plan for solid waste management
- v. Action plan for e-waste management.
- vi. Action plan for plastic waste management.
- vii. Action plan for construction and demolition waste management.
- viii. Effluent management plan
- ix. Storm water management plan
- x. Rain water harvesting plan
- xi. Plan for maximum usage of waste water/treated water in the Unit
- xii. Occupational health and safety management plan
- xiii. Green belt development plan: An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in 33% of total area with a tree density shall not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt shall be monitored on periodic basis to ensure that survival rate not be less than 80 %.
- xiv. Socio-economic management plan
- xv. Wildlife conservation plan (In case of presence of schedule I species)
- xvi. Total capital cost and recurring cost/annum for environment pollution control measures shall be included.

11. Conclusion of the EIA study

12. In addition to the above, any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

Standard ToRs FOR CEMENT INDUSTRY [3(b)]

1. Limestone and coal linkage documents along with the status of environment clearance of limestone and coal mines.
2. Quantum of production of coal and limestone from coal & limestone mines and the projects they cater to;
3. Present land use shall be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
4. If the raw materials used have trace elements, an environment management plan shall also be included.
5. Plan for the implementation of the recommendations made for the cement plants in the Corporate Responsibility for Environmental Protection (CREP) guidelines shall be prepared.
6. Energy consumption per ton of clinker and cement grinding
7. Provision of waste heat recovery boiler
8. Arrangement for co-processing of hazardous waste in cement plant.
9. Provision of Alternate fuels.
10. Details of Implementation of Fly Ash Management Rules
11. Emission/Effluent norms as per GSR 496 (E) dated 9/5/2016 [EPA Rules 1986].
12. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
13. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
14. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.
15. Action plan for 100 % solid waste utilization shall be submitted.
16. PM (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.

Standard ToRs FOR INTEGRATED STEEL PLANT [3(a)]

1. Iron ore/coal linkage documents along with the status of environment clearance of iron ore and coal mines.
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact.
3. For Large ISPs, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the

- 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
5. PM (PM₁₀ and PM_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of 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 specially in slag.
 13. Trace metals in water
 14. Details of proposed layout clearly demarcating various units within the plant.
 15. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
 16. Details on design and manufacturing process for all the units.
 17. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
 18. Details on requirement of energy and water along with its source and authorization from the concerned department. Location of water intake and outfall points (with coordinates).
 19. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
 20. Details on toxic content (TCLP), composition and end use of slag.
 21. Fourth Hole fume extraction system shall be provided for submerged Arc Furnace (SAF). Waste heat recovery (WHR) system shall be installed to recover the sensible heat from flue gases of electric arc furnace (EAF).
 22. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].
 23. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
 24. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
 25. Action plan for 100 % solid waste utilization shall be submitted.
 26. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.

Standard ToRs FOR METALLURGICAL INDUSTRY (Ferrous and Non-ferrous)[3(a)]

1. A 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.

2. Plan for the implementation of the recommendations made for the proposed Unit in the Corporate Responsibility for Environmental Protection (CREP) guidelines.
3. Plan for solid wastes utilization.
4. Plan for utilization of energy in off gases (coke oven, blast furnace)
5. System of coke quenching adopted with full justification.
6. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
7. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
8. Details on toxic content using Toxicity Characteristic Leaching Procedure (TCLP), composition and end use of slag.
9. 100 % dolo char generated in the plant shall be used to generate power.
10. Fourth Hole fume extraction system shall be provided for SAF.WHR system shall be installed to recover sensible heat from flue gases of EAF. Provision for installation of jigging and briquetting plant to utilise the fines generated in the process.
11. No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.
12. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].
13. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
14. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be submitted.
15. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
16. Action plan for 100 % solid waste utilization shall be submitted.
17. PM (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.

Standard ToRs FOR PULP AND PAPER INDUSTRY [5(i)]

1. A note on pulp washing system capable of handling wood pulp shall be included.
2. Manufacturing process details for the existing and proposed plant shall be included. Chapter on Pulping & Bleaching shall include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery shall include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of

suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln

3. Studies shall be conducted and a chapter shall be included to show that Soda pulping process can be employed for Eucalyptus/Casuarina to produce low kappa (bleachable) grade of pulp.
4. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be closed within 2 years of issue of environment clearance.
5. A commitment that no extra chlorine base bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills. Plan for reduction of water consumption.
6. Undertaking to comply with the norms stipulated in the S.O. 3187 (E) dated 7/10/2016 for the projects located in Ganga basin.
7. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
9. Action plan for 100 % waste utilization shall be submitted.

Standard ToRs FOR LEATHER/SKIN/HIDE PROCESSING INDUSTRY [4(f)]

1. Justification for engaging a particular type of process (raw hide/skin into semi finishing or finished leather, semi-finished leather to finished leather, dry finishing operations, chrome/vegetable tanning, etc.).
2. Details regarding complete leather/ skin/ hide processing including the usage of sulphides, nitrogen compounds, chromium or other tanning agents, post-tanning chemicals, biocides, etc., along with the material balance shall be provided.
3. In case of chrome tanning, details of the chrome recovery plant, management of shavings/solid waste including safe disposal.
4. Details on reuse of soak liquor / saline stream from membrane system, if applicable, to the extent possible in pickling activity after required treatment. Also, mention the salt recovery measures.
5. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
6. Action plan for 100 % waste utilization shall be submitted.

Standard ToRs FOR COKE OVEN PLANT [4(b)]

1. Justification for selecting recovery/non-recovery (beehive) type batteries with the proposed unit size.
2. Details of proposed layout clearly demarcating various facilities such as coal storages, coke making, by-product recovery area, etc within the plant.

3. Details of coke oven plant (recovery/non-recovery type) including coal handling, coke oven battery operations, coke handling and preparation.
4. Scheme for coal changing, charging emission centre, Coke quenching technology, pushing emission control.
5. Scheme for coke oven effluent treatment plant details including scheme for meeting cyanide standard.
6. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019. Provision of CDQ in case of coke oven plant of 0.8 MTPA and above.
7. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
8. Action plan for 100 % solid waste utilization shall be submitted.
9. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

Standard ToRs FOR ASBESTOS MILLING AND ASBESTOS BASED PRODUCTS[4(c)]

1. Type of fibres used (Asbestos and others) and preference of selection from techno-environment angle should be furnished
2. As asbestos is used in several products and as the level of precautions differ from milling to usage in cement products, friction products gasketing, textiles and also differ with the process used, it is necessary to give process description and reasons for the choice for selection of process
3. Technology adopted, flow chart, process description and layout marking areas of potential environment impacts
4. National standards and codes of practice in the use of asbestos particular to the industry should be furnished
5. In case of newly introduced technology, it should include the consequences of any failure of equipment/ technology and the product on environment status.
6. In case of expansion project asbestos fibre to be measured at stack emission and work zone area, besides base line air quality.
7. In case of green field project asbestos fibre to be measured in the ambient air.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm³ shall be furnished.
9. Action plan for 100 % solid waste utilization shall be submitted.
10. PM (PM₁₀ and P_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations in case of expansion projects (trace elements /asbestos fibre) of PM₁₀ to be carried over.
11. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

Standard ToRs FOR IRON ORE BENEFICIATION PLANT [2 (b)]

1. Details regarding pollution control measures to be adopted in the mineral handling area, loading and unloading areas including all transfer points shall be submitted.
2. The Project proponent shall submit action plan for conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas.
3. Treatment details regarding effluent generated from the ore beneficiation plant and the mode of transportation of tailing slurry shall be submitted.
4. Separate chapter on slime management shall be submitted.
5. Action plan for regular monitoring of ground water level and quality in and around the project area of beneficiation plant and tailing/slime pond shall be submitted by establishing a network of existing wells and constructing new piezometers.
6. Details regarding lining of the tailing/slime pond to be provided shall be submitted in order to ensure that there is no leaching from the tailing/slime pond.
7. Details regarding establishment of garland drain around the tailing/slime pond and the quantity of decanted water to be re-circulated from the tailing/slime pond shall be submitted along with complete water balance.
8. Technology to be adopted for maximum recovery of ore in order to reduce slurry discharge and to increase the life of the tailing/slime pond shall be submitted.
9. Action plan for 100 % solid waste utilization shall be submitted.
10. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

**Standard ToR in line with Appendix III of the EIA, 2006.
applicable to Proposals Under Industry-1 Sector****Preliminary requirements:**

- i. EIA/EMP report cover page shall consist of project title with location, applicable schedule of the EIA Notification, 2006, ToR letter No. with date, study period along with EIA consultant & laboratory details with QCI/NABET/NABL accreditation certificate detail.
- ii. Besides, following points shall be compiled as per QCI/NABET norms:
 - f. Disclaimer by the EIA consultant.
 - g. Declaration by the Functional Area Experts contributed to the EIA study and declaration by the head of the accredited consultant organization/authorized person.
 - h. Undertaking by the project proponent owning the contents (information and data) of the EIA/EMP report.
 - i. Undertaking by the EIA consultant regarding compliance of ToR issued by MoEF&CC.
 - j. Consultant shall submit the Plagiarism Certificate for the EIA/EMP Report.

Structure of EIA/EMP report**Executive Summary**

- i. Table of Contents of the EIA report including list of tables/figures/annexures/abbreviations/symbols/notations.
 - ii. Point wise compliance to the ToR issued by MoEF&CC.
 - iii. Executive Summary
- I. Introduction
 - i. Name of the project along with applicable schedule and category as per EIA, 2006.
 - ii. Location and accessibility
 - II. Project description
 - i. Resource requirements (Land; water; fuel; manpower)
 - ii. Operational activity
 - iii. Key pollution concerns
 - III. Baseline Environment Studies
 - i. Ambient air quality
 - ii. Ambient Noise quality
 - iii. Traffic study
 - iv. Surface water quality
 - v. Ground water quality
 - vi. Soil quality
 - vii. Biological Environment
 - viii. Land use
 - ix. Socio-economic environment
 - IV. Anticipated impacts
 - i. Impact on ambient air quality

- ii. Impact on ambient noise quality
- iii. Impact on road and traffic
- iv. Impact on surface water resource and quality
- v. Impact on ground water resource and quality
- vi. Impact on terrestrial and aquatic habitat
- vii. Impact on socio-economic environment
- V. Alternative analysis
- VI. Environmental Monitoring program
 - i. Ambient air, noise, water and soil quality
 - ii. Emission and discharge from the plant
 - iii. Green belt
 - iv. Social parameters
- VII. Additional studies
 - i. Risk assessment
 - ii. Action plan to address the issues related to near by area as per MoEF&CC O.M. dated 30/09/2020
- VIII. Project benefits
- IX. Environment management plan
 - i. Air quality management plan
 - ii. Noise quality management plan
 - iii. Solid and hazardous waste management plan
 - iv. Effluent management plan
 - v. Storm water management plan
 - vi. Occupational health and safety management plan
 - vii. Green belt development plan
 - viii. Socio-economic management plan
 - ix. Project cost and EMP implementation budget.

EIA/EMP Report

1. Introduction

- i. Background about the project
- ii. Need of the project
- iii. Purpose of the EIA study
- iv. Scope of the EIA study

2. Project description

D. Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State.
- ii. Site accessibility
- iii. A digital toposheet in pdf or shape file compatible to google earth of the study area of radius of 10km and site location preferably on 1:50,000 scale. (including all eco-sensitive areas and environmentally sensitive places).
- iv. Latest High-resolution satellite image data having 1 m - 5 m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant

- boundary co-ordinates. Area must include at least 100 m all around the project location.
- v. Environment settings of the site and its surrounding along with map.
 - vi. A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.
 - vii. In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.
 - viii. In case if the project site is in vicinity of the river, the industry shall not be located within the river flood plain corresponding to one in 25 years flood, as certified by concerned District Magistrate/Executive Engineer from State Water Resources Department (or) any other officer authorized by the State Government for this purpose as per the provisions contained in the MoEF&CC Office Memorandum dated 14/02/2022.
 - ix. In case of canal/ nala/ seasonal drain and any other water body passing through project site, the PP shall submit the suitable steps /conservation plan/mitigation measures along with contouring, Run -off calculations, disposal etc. A robust and full proof Drainage Conservation scheme to protect the natural drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided in the report.
 - x. Type of land, land use of the project site needs to be submitted.
 - xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process as per the MoEF&CC O.M. dated 7/10/2014 shall be furnished.
 - xii. Project proponent shall prepare Engineering layout plan showing all internal roads minimum 6 m width and 9 m turning radius for smooth traffic flow inside including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
 - xiii. Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including Rain Water Harvesting details with calculations mentioning about GW recharge along with relevant drawing.
 - xiv. A detailed report covering all aspects of Fire Safety Management and Fire Emergency Plan shall be submitted.
 - xv. Details of drone survey for the site, needs to be included in report and presented before the EAC during appraisal of the project.

E. Forest and wildlife related issues (if applicable):

- i. Status of Forest Clearance for the use of forest land shall be submitted.

- ii. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10 km radius of national park/sanctuary wherein final ESZ notification is not in place as per MoEF&CC Office Memorandum dated 8/8/2019.
- iii. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.
- iv. Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna along with budget and action plan, if any exists in the study area.

F. Salient features of the project

- i. Products with capacities in **Tons per Annum** for the proposed project.
 - ii. If expansion project, status of implementation of existing project, details of existing/proposed products with production capacities in Tons per Annum.
 - iii. Site preparatory activities.
 - iv. List of raw materials required and their source along with mode of transportation.
 - v. Other than raw materials, other chemicals and materials required with quantities and storage capacities.
 - vi. Manufacturing process details along with process flow diagram of proposed units.
 - vii. Consolidated materials and energy balance for the project.
 - viii. Total requirement of surface/ ground water and power with their respective sources, status of approval.
 - ix. Water balance diagram
 - x. Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase.
 - xi. Man-power requirement.
 - xii. Cost of project and scheduled time of completion.
 - xiii. In case of expansion projects, project proponent shall submit structural stability certificate showing whether existing structure withstand for proposed expansion activity.
 - xiv. Brief on present status of compliance (Expansion/modernization proposals)
- a. Cumulative Environment Impact Assessment for the existing as well as the proposed expansion/modernization shall be carried out.
 - b. In case of ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next two years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source.
 - c. Copy of all the Environment Clearance(s) including Amendments/validity of extension/transfer of EC, there to obtained for the project from MoEF&CC/SEIAA shall be attached as Annexures. A Certified Compliance Report (CCR) of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change/ or concerned authority as per OM

No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022 on the status of compliance of conditions stipulated in all the existing environment clearances including amendments shall be provided. A Certified Compliance Report (CCR) issued by the concerned Authority shall be valid for a period of one year from the date of inspection.

- d. In case the existing project has not obtained Environment Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. A proper justification needs to be submitted along with documentary proof. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 1994 or 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of CTO from the Regional Office of the SPCB shall be submitted, as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022. CCR on CTO conditions issued by the concerned SPCBs/PCCs shall be valid for a period of one year from the date of inspection of the project.

3. Description of the Environment

- i. Study period
- ii. Approach and methodology for data collection as furnished below.

Attributes	Sampling		Remarks
	Network	Frequency	
A. Air Environment			
Micro-Meteorological <ul style="list-style-type: none"> • Wind speed (Hourly) • Wind direction • Dry bulb temperature • Wet bulb temperature • Relative humidity • Rainfall • Solar radiation • Cloud cover • Environmental Lapse Rate 	Minimum 1 site in the project impact area	1 hourly continuous	<ul style="list-style-type: none"> • IS 5182 Part 1-20 • Site specific primary data is essential • Secondary data from IMD, New Delhi • CPCB guidelines to be considered.
Pollutants <ul style="list-style-type: none"> • PM_{2.5} • PM₁₀ • SO₂ • NO_x • CO • HC • Other parameters 	At least 8-12 locations	As per National Ambient Air Quality Standards, CPCB Notification.	<ul style="list-style-type: none"> • Sampling as per CPCB guidelines • Collection of AAQ data (except in monsoon season) • Locations of various stations for different parameters should be related to the

Attributes	Sampling		Remarks
	Network	Frequency	
relevant to the project and topography of the area			<p>characteristic properties of the parameters.</p> <ul style="list-style-type: none"> The monitoring stations shall be based on the NAAQM standards as per GSR 826(E) dated 16/11/2009 and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests, Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAAQM Notification of 16/11/2009 along with min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
B. Noise			
<ul style="list-style-type: none"> Hourly equivalent noise levels 	At least 8-12 locations	As per CPCB norms	-
C. Water			
<p>Parameters for water quality</p> <ul style="list-style-type: none"> pH, temp, turbidity, magnesium hardness, total alkalinity, chloride, sulphate, nitrate, fluoride, sodium, potassium, 	<p>Samples for water quality should be collected and analyzed as per:</p> <ul style="list-style-type: none"> IS: 2488 (Part 1-5) methods for sampling and testing of Industrial effluents Standard methods for examination of water and wastewater analysis published by American Public Health Association. 		

Attributes	Sampling		Remarks
	Network	Frequency	
salinity <ul style="list-style-type: none"> Total nitrogen, total phosphorus, DO, BOD, COD, Phenol Heavy metals Total coliforms, faecal coliforms Phyto-plankton Zoo-plankton Microalgae/microalgal bloom 			
For River Bodies <ul style="list-style-type: none"> Total Carbon pH Dissolved Oxygen Biological Oxygen Demand Free NH₄ Boron Sodium Absorption Ratio Electrical Conductivity TDS 	<ul style="list-style-type: none"> Surface water quality of the nearest River (60m upstream and downstream) and other surface water bodies 	<ul style="list-style-type: none"> Yield of water sources to be measured during critical season Standard methodology for collection of surface water (BIS standards) 	
For Ground Water	<ul style="list-style-type: none"> Ground water monitoring data should be collected at minimum of 8 locations (from existing wells /tube wells/existing current records) from the study area and shall be included. 		
D. Traffic Study			
<ul style="list-style-type: none"> Type of vehicles Frequency of vehicles for transportation of materials Additional traffic due to proposed project Parking arrangement 	-		
E. Land Environment			
Soil <ul style="list-style-type: none"> Particle size distribution Texture 	Soil samples be collected as per BIS specifications		

Attributes	Sampling		Remarks
	Network	Frequency	
<ul style="list-style-type: none"> • pH • Electrical conductivity • Cation exchange capacity • Alkali metals • Sodium Absorption Ratio (SAR) • Permeability • Water holding capacity • Porosity 			
Land use/Landscape <ul style="list-style-type: none"> • Location code • Total project area • Topography • Drainage (natural) • Cultivated, forest, plantations, water bodies, roads and settlements 	-		
E. Biological Environment			
Aquatic <ul style="list-style-type: none"> • Primary productivity • Aquatic weeds • Enumeration of phyto plankton, zoo plankton and benthos • Fisheries • Diversity indices • Trophic levels • Rare and endangered species • Marine Parks/ Sanctuaries/ closed areas /coastal regulation zone (CRZ) Terrestrial <ul style="list-style-type: none"> • Vegetation-species list, economic importance, forest produce, medicinal value 			<ul style="list-style-type: none"> • Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. Indicator species which indicate ecological and environment degradation should be identified and included to clearly state whether the proposed project would result in to any adverse effect on any species. • Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site. • For forest studies, direction of wind should be considered while selecting forests. • Secondary data to collect from Government offices, NGOs, published literature.

Attributes	Sampling		Remarks
	Network	Frequency	
<ul style="list-style-type: none"> • Importance value index (IVI) of trees • Fauna • Avi fauna • Rare and endangered species • Sanctuaries / National park / Biosphere reserve • Migratory routes 			
F. Socio-economic			
<ul style="list-style-type: none"> • Demographic structure • Infrastructure resource base • Economic resource base • Health status: Morbidity pattern • Cultural and aesthetic attributes • Education 			<ul style="list-style-type: none"> • Socio-economic survey is based on proportionate, stratified and random sampling method. • Primary data collection through questionnaire • Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. agencies

iii. Interpretation of each environment attribute shall be enumerated and summarized as given below:

- Ambient air quality
- Ambient Noise quality
- Surface water quality
- Ground water quality
- Soil quality
- Biological Environment
- Land use
- Socio-economic environment

4. Anticipated Environment Impacts and mitigation measures (In case of expansion, cumulative impact assessment shall be carried out)

i. Identification of potential impacts in the form of a **matrix** for the construction and operation phase for all the environment components

Activity	Environment	Ecological	Socio-economic
Construction phase			
Operation phase			

- ii. Impact on ambient air quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
 - Details of stack emissions from the existing as well as proposed activity.
 - Assessment of ground level concentration of pollutants from the stack emission based on AQIP Modelling The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any along with wind rose map for respective period
 - Impact on ground level concentration, under normal, abnormal and emergency conditions. Measures to handle emergency situations in the event of uncontrolled release of emissions.
- iii. Impact on ambient noise quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- iv. Impact on traffic (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- v. Impact on soil quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- vi. Impact on land use (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- vii. Impact on surface water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- viii. Impact on ground water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- ix. Impact on terrestrial and aquatic habitat (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase
- x. Impact on socio-economic environment (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)

- a. Construction phase
- b. Operation phase
- xi. Impact on occupational health and safety (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
 - a. Construction phase
 - b. Operation phase

5. Analysis of Alternatives (Technology & Site)

- i. No project scenario
- ii. Site alternative
- iii. Technical and social concerns
- iv. Conclusion

6. Environmental Monitoring Program

- i. Details of the Environment Management Cell
- ii. Performance monitoring schedule for all pollution control devices shall be furnished.
- iii. Corporate Environment Policy
 - e. 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.
 - f. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environment or forest norms / conditions? If so, it may be detailed in the EIA.
 - g. What is the hierarchical system or Administrative order of the company to deal with the environment issues and for ensuring compliance with the environment clearance conditions? Details of this system may be given.
 - h. Does the company have system of reporting of non compliances / violations of environment norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
- iv. Action plan for **post-project environment monitoring matrix:**

Activity	Aspect	Monitoring Parameter	Location	Frequency	Responsibility
Construction phase					
Operation phase					

7. Additional Studies

- i. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company’s carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage after offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition

pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

- ii. Details of adoption/ implementation status/plan to achieve the goal of Glasgow COP26 Climate Submit with regard to enhance the non-fossil energy, use of renewable energy, minimization of net carbon emission and carbon intensity with long-term target of “net Zero” emission.
- iii. Implementation status/measures adopted for avoiding the generation of single used plastic waste.
- iv. In cases the project is located in Critically and Severely Polluted Areas, additional mitigation measures adopted and detailed action plan to be submitted in the EIA/EMP Report as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-23/2028-IA.III dated 5/07/2022 has to be submitted.
- v. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.

S N o	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. in Crores)
	Name of the Activity	Physical Targets	1 st	2 nd	3 rd	

- vi. Risk assessment
 - Methodology
 - Hazard identification
 - Frequency analysis
 - Consequence analysis
 - Risk assessment outcome
- vii. Emergency response and preparedness plan

8. Project Benefits

- i. Environment benefits
- ii. Social infrastructure
- iii. Employment and business opportunity
- iv. Other tangible benefits

9. Environment Cost Benefit Analysis

- i. Net present value
- ii. Internal rate of return
- iii. Benefit cost ratio
- iv. Cost effectiveness analysis

10. Environment Management Plan (Construction and Operation phase)

- i. Air quality management plan
- ii. Noise quality management plan
- iii. Action plan for hazardous waste management
- iv. Action plan for solid waste management
- v. Action plan for e-waste management.
- vi. Action plan for plastic waste management.
- vii. Action plan for construction and demolition waste management.
- viii. Effluent management plan
- ix. Storm water management plan
- x. Rain water harvesting plan
- xi. Plan for maximum usage of waste water/treated water in the Unit
- xii. Occupational health and safety management plan
- xiii. Green belt development plan: An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in 33% of total area with a tree density shall not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt shall be monitored on periodic basis to ensure that survival rate not be less than 80 %.
- xiv. Socio-economic management plan
- xv. Wildlife conservation plan (In case of presence of schedule I species)
- xvi. Total capital cost and recurring cost/annum for environment pollution control measures shall be included.

11. Conclusion of the EIA study

12. In addition to the above, any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

List of the Expert Appraisal Committee (Industry-1) members participated during Video Conferencing meeting

S. No.	Name	Position	01/08/2022	02/08/2022	03/08/2022
1.	Shri. Rajive Kumar	Chairman	<i>Present</i>	<i>Present</i>	<i>Present</i>
2.	Dr. Dipankar Shome	Vice Chairman	<i>Present</i>	<i>Present</i>	<i>Present</i>
3.	Dr. S. Ranganathan	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
4.	Dr. Ranjit Prasad	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
5.	Dr. E V R Raju	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
6.	Dr. S. K. Singh	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
7.	Dr. Jai Krishna Pandey	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
8.	Dr. Tejaswini Ananthkumar	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
9.	Dr. Hemant Sahasrabuddhe	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
10.	Dr. B. N. Mohapatra, DG, (Representatives of NCCBM)	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
11.	Shri Nazimuddin, Scientist 'F' (Representative of CPCB)	Member	<i>Absent</i>	<i>Present</i>	<i>Present</i>
12.	Dr. S. Raghavan, Scientist 'D' (Representative of NIOH)	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
13.	Dr. Sanjay Bist, Scientist 'E' (Representative of IMD)	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
14.	Dr. R.B. Lal, Scientist E, MoEFCC	Member Secretary	<i>Present</i>	<i>Present</i>	<i>Present</i>
MoEFCC					
15.	Dr R P Rastogi	Scientist C	<i>Present</i>	<i>Present</i>	<i>Present</i>
16.	Dr. Sandeepan BS	Scientist B	<i>Present</i>	<i>Present</i>	<i>Present</i>

Approval of EAC Chairman

Email

Additional Director MoEFCC Dr R B LAL

**Re: Draft Minutes of the 10th EAC Meeting held during August 1-3, 2022-
Request for approval of the Chairman, EAC**

From : rajivekumar1983@gmail.com

Thu, Aug 11, 2022 02:30 PM

Subject : Re: Draft Minutes of the 10th EAC
Meeting held during August 1-3, 2022-
Request for approval of the Chairman,
EAC

 1 attachment

To : Additional Director MoEFCC Dr R B LAL
<rb.lal@nic.in>

Dear Dr Lal,

The draft minutes of 10 th- EAC- Industry-1 are approved. Kindly do needful.

**Best wishes
Rajive Kumar**
