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

Date of zero draft MoM sent to Chairman: 03/05/2022
Approval by Chairman: 06/05/2022

Summary record of the fourth (4th) meeting of Expert Appraisal Committee (EAC) held on 27 – 28th April, 2022 for environment appraisal of Industry-1 sector projects constituted under the provisions of Environment Impact Assessment (EIA) Notification, 2006.

The fourth meeting of the Expert Appraisal Committee (EAC) for Industry-I Sector as per the provisions of the EIA Notification, 2006 for Environmental Appraisal of Industry-I Sector Projects was held during **27 – 28th April, 2022** in the Ministry of Environment, Forest and Climate Change (MoEF&CC) through **video conferencing** in view of the ongoing Corona Virus Disease (Covid-19) pandemic. The list of EAC attendees is as follows:

S No	Name	Position	27/04/2022	28/04/2022
1.	Shri. Rajive Kumar	Chairman	Present	Present
2.	Dr. S. Ranganathan	Member	Present	Present
3.	Dr. Ranjit Prasad	Member	Present	*Absent*
4.	Dr. E V R Raju	Member	Present	Present
5.	Dr. S. K. Singh	Member	Present	Present
6.	Dr. Jai Krishna Pandey	Member	Present	Present
7.	Dr. Dipankar Shome	Member	Present	Present
8.	Dr. Tejaswini Ananthkumar	Member	Present	Present
9.	Dr. Hemant Sahasrabuddhe	Member	Present	Present
10.	*Dr. B. N. Mohapatra, DG, National Council for Cement and Building Materials (NCCBM)*	*Member*	*Absent*	*Absent*
11.	*Representative of CPCB*	*Member*	*Absent*	*Absent*
12.	Dr. S. Raghavan, Scientist 'D' National Institute of Occupational Health (NIOH)	Member	Present	Present
13.	Dr. Sanjay Bist, Scientist 'E' Indian Meteorological Department	Member	Present	*Absent*
Officials from MoEF&CC				
14.	Shri. Sundar Ramanathan	Member Secretary	Present	Present
15.	Dr. Sandeepan B.S.	Scientist 'B'	Present	Present

After welcoming the Committee Members, discussion on each of the agenda items was taken up. The minutes of 3rd meeting held during 11- 12th April, 2022 were confirmed by the EAC as already uploaded on PARIVESH.

27th April, 2022

4.1 Proposed Cement Plant for (Clinker: 3.5 MTPA and Cement 5.0 MTPA), WHRS (17 MW) and D.G. Set (2x1250 kVA) by **M/s. UltraTech Cement Ltd. (Unit: Dalla Super Cement Works)** located at Village Kota (Dalla), Tehsil Obra (Erstwhile Robertsganj), **District Sonebhadra, Uttar Pradesh** [Online Proposal No. IA/UP/IND/162025/2020; File no: J-11011/449/2009-IA.II(I)] **– Environment Clearance – regarding.**

4.1.1 M/s. UltraTech Cement Ltd. has made an online application *vide* proposal no. IA/UP/IND/162025/2020 dated 24th Feb., 2022 along with copy of EIA/EMP Report, Form - 2 and 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)' under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

4.1.2 The proposal was earlier listed for consideration before the EAC in its meeting held on 22-23rd March, 2022. However, the project proponent vide email dated 09/03/2022 expressed their inability to participate in the meeting and requested to consider the proposal in the next EAC meeting. Accordingly, the proposal is placed in the next meeting.

Details submitted by Project proponent

4.1.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	Validity of ToR
07/07/2020	21st Meeting of EAC held on 31st July, 2022	Terms of Reference	25/08/2020	24/08/2024

4.1.4 The project of M/s. UltraTech Cement Ltd. located at Village: Kota (Dalla), Tehsil: Obra (Erstwhile Robertsganj, District: Sonebhadra, Uttar Pradesh State is for Proposed Cement Plant (Clinker: 3.5 MTPA and Cement 5.0 MTPA), WHRS (17 MW) and D.G. Set (2 x 1250 KVA).

- Environment Clearance for setting up of Dalla Super Cement Works (Clinker - 2.01 MTPA, Cement - 2.50 MTPA) was obtained from MoEFCC, New Delhi *vide* letter no. J-11011/449/2009-IA-II (I) dated 30/09/2010 by M/s. Jaiprakash Associates Limited (JAL).
- Consent to Establish (CTE) was obtained from Uttar Pradesh Pollution Control Board vide letter dated 12/10/2010. However, most of the Cement Plant was constructed but JAL could not commence the production within the EC validity due to the court case related to land, with the Hon'ble Supreme Court further transferred to the National Green Tribunal (NGT).
- Subsequently, NGT published an order on 04/05/2016 in judgment of the case (M.A. No. 1166 of 2015 & (I.A. No. 2469 of 2009), M.A. No. 1169 of 2015 (I.A. No. 3877 of 2015) and M.A. No. 1164 of 2015 (I.A. No. 2939 of 2010) In W.P. (C) No. 202 of 1995 And Original Application No. 494/2015 In C.W.P. No. 130/2011), accepting the recommendations made by CEC on 07/08/2009 against the said project and reverse the order passed by the Forest Settlement office for exclusion of the land notified under section 4 of the Indian Forest Act and directed JAL to obtain prior approval of Central Government under Section-2 of Forest (Conservation) Act 1980.

- Thereafter, In-Principle (Stage-1) forest clearance for the diversion of 115.874 ha of forest land has been obtained from MoEF&CC (FC Division) vide letter no. 8-07/2019/FC, dated 15/04/2021 in the name of M/s. Jaiprakash Associate Limited. Diversion of 0.24 ha of forest land (under Conveyor Belt, Rope Way, Road from DSCW Plant to DCW Plant) is included in Mine proposal which is under process.
- M/s. Ultratech Cement Limited has acquired the Dalla Super Cement Works and associate limestone mine from M/s. Jaiprakash Associates Limited by Hon'ble National Company Law Tribunal (NCLT) at Allahabad and Mumbai Bench vide its order dated 15/02/2017 and 02/03/2017 respectively.
- Due to above mentioned events, as per EIA notification, 2006, the EC got expired and the plant operation could not commence within the validity period.
- Now, Ultratech Cement Limited intend to commence the cement plant and therefore applied for afresh environmental clearance.

4.1.5 Environmental Site Settings:

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>183.064 ha
[forest land: 116.114 ha
Private land: 66.95]</td><td></td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC OM dated 7/10/2014</td><td>The non-forest land is already under the possession of M/s. UltraTech Cement Ltd. as all the assets have been transferred from JAL to UTCL by way of Scheme of arrangement approved by Hon'ble NCLT. Conversion of forest land will be done into industrial after forest clearance obtained from MoEF&CC.

In-Principle (Stage - 1) approval for the diversion of 115.874 ha of forest land has been obtained from MoEF&CC (Forest Conservation Division) vide letter no. 8-07/2019/FC, dated 15/04/2021 in the name of M/s. Jaiprakash Associate Limited (JAL). M/s. UltraTech Cement Ltd. (UTCL) will get it name change from JAL to UTCL. Diversion of balance 0.24 ha of forest land (under Conveyor Belt, Rope Way, Road from DSCW Plant to DCW Plant) has been included in Mine proposal, which is under process.</td><td>-</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td><u>Plant Site</u>: NIL

<u>Study Area</u>:<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Dalla</td><td>Adjacent</td><td>West</td></tr><tr><td>Pakari</td><td>3.5 km</td><td>NNE</td></tr><tr><td>Tilgudwa</td><td>1.80 km</td><td>South</td></tr><tr><td>Vilemar Kundi</td><td>0.20 km</td><td>North</td></tr><tr><td>Durga Nagar</td><td>2.0 km</td><td>NW</td></tr><tr><td>Salaihanwa</td><td>2.0 km</td><td>ESE</td></tr></table></td><td>-</td></tr>
</table>

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Salai Banwa</td><td>2.5 km</td><td>WSW</td></tr>
<tr><td>Dhaurahwa</td><td>2.3 km</td><td>ESE</td></tr>
<tr><td>Jurwani</td><td>2.6 km</td><td>East</td></tr>
<tr><td>Gauradah</td><td>2.5 km</td><td>North</td></tr>
<tr><td>Raksahwa</td><td>1.4 km</td><td>NW</td></tr>
<tr><td>Kajrahat</td><td>1.2 km</td><td>NE</td></tr>
<tr><td>Kanaiya</td><td>2.7 km</td><td>ESE</td></tr>
</table>
There are approx. 34 villages in 10 km radius study area.
</td><td></td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all the corners of project site</td><td>
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1.</td><td>24°27'6.93" N</td><td>83°2'58.17" E</td></tr>
<tr><td>2.</td><td>24°27'5.96" N</td><td>83°3'3.27" E</td></tr>
<tr><td>3.</td><td>24°27'6.06" N</td><td>83°3'7.57" E</td></tr>
<tr><td>4.</td><td>24°27'5.28" N</td><td>83°3'7.59" E</td></tr>
<tr><td>5.</td><td>24°27'5.81" N</td><td>83°3'16.48" E</td></tr>
<tr><td>6.</td><td>24°27'4.61" N</td><td>83°3'16.49" E</td></tr>
<tr><td>7.</td><td>24°27'4.69" N</td><td>83°3'17.49" E</td></tr>
<tr><td>8.</td><td>24°27'6.25" N</td><td>83°3'24.90" E</td></tr>
<tr><td>9.</td><td>24°26'55.42" N</td><td>83°4'41.44" E</td></tr>
<tr><td>10.</td><td>24°26'40.56" N</td><td>83°4'41.66" E</td></tr>
<tr><td>11.</td><td>24°26'37.29" N</td><td>83°4'35.86" E</td></tr>
<tr><td>12.</td><td>24°26'32.38" N</td><td>83°2'51.12" E</td></tr>
<tr><td>13.</td><td>24°26'39.07" N</td><td>83°2'17.82" E</td></tr>
<tr><td>14.</td><td>24°26'36.74" N</td><td>83°2'7.66" E</td></tr>
<tr><td>15.</td><td>24°26'37.40" N</td><td>83°2'2.28" E</td></tr>
<tr><td>16.</td><td>24°26’45.68" N</td><td>83°1'57.55" E</td></tr>
<tr><td>17.</td><td>24°26'48.93" N</td><td>83°2'3.03" E</td></tr>
<tr><td>18.</td><td>24°26'49.92" N</td><td>83°2'8.51" E</td></tr>
<tr><td>19.</td><td>24°26'51.66" N</td><td>83°2'12.13" E</td></tr>
<tr><td>20.</td><td>24°26'45.60" N</td><td>83°2'23.50" E</td></tr>
<tr><td>21.</td><td>24°27'0.96" N</td><td>83°2'41.14" E</td></tr>
</table>
</td><td>-</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>205 m to 235 m AMSL.</td><td>-</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>Out of the total project area i.e. 183.064 ha; 116.114 ha forest land is involved.</td><td>-</td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>
Project site: A Seasonal Nallah is passing through the project site.
Study area: Following water bodies falls within 10 km radius:
<table>
<tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Son River</td><td>1.25 km</td><td>North</td></tr>
<tr><td>Rihand River</td><td>5.6 km</td><td>WSW</td></tr>
<tr><td>Kanhar River</td><td>6.2 km</td><td>SE</td></tr>
<tr><td>Ghaghar Nadi</td><td>8.5 km</td><td>North</td></tr>
<tr><td>Kajiahat Nala</td><td>1.5 km</td><td>NNE</td></tr>
<tr><td>Naua Nala</td><td>2.0 km</td><td>SW</td></tr>
</table>
</td><td>-</td></tr>
</table>

S No	Particulars	Details	Remarks
		Jatya Nala — 3.5 km — ENE Durhul Nala — 4.8 km — ESE Chhotaghagh Nala — 4.8 km — South Kutraicha Nala — 9.25 km — ESE Belwadah Nala — 7.7 km — SE Haraiyakhari Nala — 8.8 km — ESE Sakla Nala — 8.3 km — SSE	
viii.	Existence of ESZ/ ESA/national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve /elephant reserve etc. if any within the study area	• Kaimoor Wildlife Sanctuary is located at a distance of ~1.90 km in NE from the plant boundary and its Eco Sensitive Zone is falling at distance of ~0.9 km from the plant boundary. • Eco-Sensitive zone of the Kaimoor Wildlife Sanctuary has been notified vide MoEFCC Notification S.O. 891 (E) dated 20th March 2017. 1 km area was declared as Eco- sensitive zone. • Location showing the exact distance of the boundary of Kaimoor Wildlife Sanctuary and its Eco-Sensitive Zone from Dalla Super Cement Plant and Wildlife Conservation Plan for Schedule -I species falling in the study area (10 km radius), duly authenticated by Principle Chief Conservator of Forest, Wildlife, Uttar Pradesh, Lucknow vide letter No. 2690/26-11(UTCL/Sonbhadra) Lucknow, dated 07th June, 2021. • As project area is outside of the Eco-sensitive zone of Kaimoor Wildlife Sanctuary, therefore; NBWL clearance is not applicable for the project. • Project area is part of a Reserve Forest. • Barhar PF (5.8 km in SW direction) • Singrauli RF (7.5 km in South Direction)	-
viii.	Critically/Polluted area	The project site is reported to be located within the boundary limits of Singrauli district – Severely Polluted Area having CEPI score of 62.59.	

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

S No	Unit	Production capacity
1.	Clinker (MTPA)	3.5*
2.	Cement (MTPA)	5.0
3.	WHRS (MW)	17
4.	D.G. Set (kVA)	2 x 1250

Note: **Part of clinker will be sent to split Grinding units of UTCL*

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

S No	Name of Raw Material	Quantity (MTPA)	Source	Distance & Mode of Transportation
1.	Limestone	5.04	Captive Limestone mine and other UTCL mines	Adjacent to the plant and 2 to 5 km / Road
2.	Iron Ore / Red mud	0.21	Hindalco Industries Ltd. Renukoot	35 km/Road
3.	Gypsum (Mineral / Chemical)	0.20	Bikaner - Rajasthan / Bharuch - Gujarat / Imported Gypsum (via Port Paradip / Haldia)	1000-1400 km / Road & Rail*
4.	Fly ash	1.75	Obra Power Plant / Hindalco Renukoot-Renusagar & Nearby TPPs Singrauli area	10 to 70 km / Road

**Existing DCW railway siding will be used for transportation of raw material and transport of Clinker to split grinding units*

4.1.8 Water requirement for the proposed Cement Plant will be 2500 KLD; out of which 2023 KLD will be sourced from Groundwater and remaining 477 KLD of water requirement will be met rainwater accumulated in pits of existing captive mines. Permission from CGWA for withdrawal of groundwater has been obtained vide NOC no. CGWA/NOC/IND/ORIG/2020/7613 dated 6th March 2020 which was valid up to 05th March, 2022. Renewal of the same has been applied & which is under process.

4.1.9 The power requirement for the proposed project will be 35 MW; which will be sourced from the Grid, Proposed WHRS and existing CPP of UTCL (Unit: Dalla Cement Works). Agreement for Supply of Electricity has been done with Uttar Pradesh Power Corporation Limited (UPPCL) on dated 19th September, 2017.

4.1.10 Baseline Environmental Studies:

Period	Post-Monsoon Season (Oct., to Dec., 2019)
AAQ parameters at 12 locations	$PM_{2.5}$ - 32.2 to 96.2 μg/m^3 PM_{10} - 61.1 to 149.4 μg/m^3 SO_2 - 6.9 to 29.6 μg/m^3 NO_2 - 16.9 to 45.4 μg/m^3 CO - 0.45 to 3.23 mg/m^3
AAQ modelling (Incremental GLC)	PM - 2.56 μg/m^3 (0.5 km in East direction) SO_2 - 4.36 μg/m^3 (1.0 km in East direction) NOx - 8.12 μg/m^3 (1.0 km in East direction)
Ground water quality at 12 locations	pH - 7.21 to 7.85 Total Hardness - 165.87 to 316.87 mg/l Chloride - 19.87 to 98.65 mg/l Fluoride - 0.87 to 1.44 mg/l TDS - 384 to 612 mg/l
Surface water quality at 14 locations	pH - 7.56 to 7.65 DO - 6.0 to 6.3 mg/l BOD - 5.2 to 5.6 mg/l COD - 18.7 to 21.4 mg/l

<table>
<tr><td>Noise levels at 10 locations</td><td>Noise Level During Day Time - 50.4 to 67.9 Leq dB (A)
Noise Level During Night Time - 40.3 to 56.8 Leq dB (A)</td></tr>
<tr><td>Traffic assessment study findings</td><td>▪ Traffic Study has been conducted at at SH-5A which is passing between DSCW Plant and Township.
▪ Transportation of raw material fuel & finished product will be done by road and by existing railway siding of sister Unit Dalla Cement Plant.
▪ Existing PCU is 300.625 PCU/hr on SH-5A and existing level of service (LOS) is:
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr)</th><th>C (Capacity in PCU/hr)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>SH - 5A</td><td>300.625</td><td>1458</td><td>0.21</td><td>B</td></tr>
</table>
▪ PCU load after proposed project will be 300.625 (Existing) + 112.62 (Additional) PCU/hr and level of service (LOS) will be:
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr)</th><th>C (Capacity in PCU/hr)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>SH - 5A</td><td>300.625+112.62=413.245</td><td>1458</td><td>0.28</td><td>B</td></tr>
</table>
*Note: Capacity as per IRC 64- 1990 Guide line for capacity for roads
Conclusion: The level of service will be Very Good after including additional traffic due to proposed project.</td></tr>
<tr><td>Flora and fauna</td><td>As per Indian Wildlife Protection Act, 1972, 10 Species of fauna and 3 species of avifauna were recorded as Schedule -I species within 10 km radius of study area. Wildlife Conservation Plan for the Schedule - I species has been duly authenticated by Principle Chief Conservator of Forest, Wildlife, Uttar Pradesh, Lucknow vide letter No. 2690/26-11(UTCL/Sonbhadra) Lucknow, dated 07/07/2021.</td></tr>
</table>

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

Source	**Type of Waste**	**Waste**	**Quantity**	**Treatment / Disposal**
Cement Plant	SW	Dust	-	Dust collected from various APCE will be totally recycled into the process.
MSW	SW	Bio-degradable and non-degradable waste	1000 kg / Day	Bio-degradable waste will be composted and non-degradable wastes will be disposed off suitably
STP	SW	STP Sludge	10 kg/day	Will be used as manure for greenbelt development / plantation

Source	Type of Waste	Waste	Quantity	Treatment / Disposal
Plant Maintenance	HW	Used or Spent Oil	150 KL / annum	Will be sold to CPCB authorized recycler / Processing in kiln
		Contaminated cotton rags	5-10 kg/day	
		Empty barrels	5 Tones/year	

4.1.12 Public Consultation:

Details of advertisement given	Public Hearing Notice published in Newspapers the "Times of India" and "Dainik Jagaran" on 06th October, 2020
Date of public consultation	09th Nov., 2020 at 11:00 am
Venue	Village- Kota, Ward No. 1, Chauri Tola, Near Water Tank, Tehsil-Obra, Janpad-Sonebhadra (Uttar Pradesh).
Presiding Officer	District Magistrate
Major issues raised	Employment, Environment, CSR activities related, Development activities, Health, Education, Plantation, etc.

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

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement			Cost
			01st Year	02nd Year	03rd Year	
1.	Drinking water facility in fluoride affected areas & Water facility for irrigation purpose	Distribution of fluoride removal kits in Kota Panchayat	150	-	-	45.9
		Installation RO Plant in Kota, Dalla and Billi	Dalla (1)	Kota (1)	Billi (1)	
		Supply of water through water tankers in villages Jhaprawa	2	2	2	
		Construction of Bore wells in village Kota & Jhirkadandi	2 (Kota)	2 (Kota)	1 (Jhirkadandi)	
		Construction solar powered water supply in village Kota (Chikdandi)	1 (Kota)	1 (Chikdandi)	-	
2.	School & Inter College Facility	Distribution of STEM models in 2 Govt. primary schools (Dakudandi & Billi gram Sabha) and training of teachers	0	Dakudandi (1)	Billi (1)	15
		Provide furniture (Table & Chair) in School of village Kota panchayat	200	300	200	

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement			Cost
			01st Year	02nd Year	03rd Year	
1.	Drinking water facility in fluoride affected areas & Water facility for irrigation purpose	Distribution of fluoride removal kits in Kota Panchayat	150	-	-	45.9
		Installation RO Plant in Kota, Dalla and Billi	Dalla (1)	Kota (1)	Billi (1)	
		Supply of water through water tankers in villages Jhaprawa	2	2	2	
		Construction of Bore wells in village Kota & Jhirkadandi	2 (Kota)	2 (Kota)	1 (Jhirkadandi)	
		Construction solar powered water supply in village Kota (Chikdandi)	1 (Kota)	1 (Chikdandi)	-	
3.	Health Facility	Provide health facility by Medical Mobile Van (free medicine & checkup) in village Kota, Padrach, Paraspani	Kota, Padrach, Paraspani	Kota, Padrach, Paraspani	Kota, Padrach, Paraspani	9
4.	Plantation	Plantation of Chironji &Tendu Tree in village Kajrahat, Sanaidandi & Bhavanmari	Kajrahat (330)	Bhavanmari (335)	Sanaidandi (335)	16
		Distribution of local species saplings in nearby villages Kota, Dalla, Paraspani, babhanmari & Basudha	Kota (2000) (Dalla 2000)	Paraspani (2000) babhanmari (2000)	Basudha (2000)	
5.	Development activity	Construction of covered Crematorium on the bank of river near to Chopan	0	1	-	15
		Establish a skill development centre in Kota gram	1	-	-	
6.	Agriculture facility	Integrated watershed development (Chorati Dandi, Bhabhanmari) establishment of wadis and composting beds (Basudha & Bhabhanmari) for vermiculture	0	water shed (Basudha & Bhabhanmari)	composting beds (Chorati Dandi, Bhabhanmari)	25
7.	Animal Husbandry	Animal health camps, intro high yield breeds of cattle and goats. In 7 tolas	Goradah & Basudha	Paraspani, Dakudandi,	Kota, Kota Khas, Chikdandi	10

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement			Cost
			01st Year	**02nd Year**	**03rd Year**	
1.	Drinking water facility in fluoride affected areas & Water facility for irrigation purpose	Distribution of fluoride removal kits in Kota Panchayat	150	-	-	45.9
		Installation RO Plant in Kota, Dalla and Billi	Dalla (1)	Kota (1)	Billi (1)	
		Supply of water through water tankers in villages Jhaprawa	2	2	2	
		Construction of Bore wells in village Kota & Jhirkadandi	2 (Kota)	2 (Kota)	1 (Jhirkadandi)	
		Construction solar powered water supply in village Kota (Chikdandi)	1 (Kota)	1 (Chikdandi)	-	
		(Goradah, Basudha, Paraspani, Dakudandi, Kota, Kota Khas, Chikdandi)	Tola			
8.	Power supply	Installation of Solar Panel & solar lights Village Kota, Jurwani, and Dhaurahwa	*Jurwani (4)*	Kota (2)	Dhaurahwa (2)	4
9.	Infrastructure Facility	Construction of toilets in village Kota, Basudha, babhanmari	*Kota (3)*	Basudha (4)	Babhavanmari (3)	24
		Construction of Roof top rainwater harvesting system in School or Govt. Building in village Kota grams panchayat and Dalla	*Dalla (5)*	Kota gram panchayat (5)	-	
		Construction of Drainage system in village Kota panchayat	*Kota panchayat*	Kota panchayat	Kota panchayat	
The total cost allocated for the Socio-developmental activities which will be part Environment Management Plan						***163***

**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.*

4.1.13 Total cost of the project is Rs. 1350 Crores (Rs. 1200 Crores already invested and Rs. 150 Crores to be invested). The capital cost for the proposed project is Rs. 49.18 Crores (Rs. 42.18 Crores already invested and Rs. 7.0 Crores to be invested) & the annual recurring cost towards the environmental protection measures for proposed project is Rs. 4.90 Crores/annum. The employment generation from the proposed project is 600 people.

S No	Particulars	Capital Cost	Annual Recurring Cost
1.	Pollution Control during construction stage (Dust suppression, waste water treatment and disposal, roads, monitoring, muck disposal)	13.25	-
2.	Air Pollution Control System	20	1.4
3.	Sewage Treatment Plant	3.5	1.4
4.	Environmental Monitoring (Instruments and Laboratory)	1.0	0.5
5.	Greenbelt Development / Plantation	3.43	1.4
6.	Safety and Risk Management	8	0.2
7.	PH issues addressal	1.63	-
Total		**50.81**	**4.90**

4.1.14 Out of the total project area i.e., 183.064 ha; 73 ha area (40% of the total project area) will be covered under greenbelt development / plantation; out of which approx. 60.41 ha area (33% of the project area) has already been covered under greenbelt development / plantation. The total existing saplings available in the project area is 58100 with approx. 962 samplings / ha.
Now, Company is planned to proposed greenbelt development / plantation in rest of the area of 13 ha with 2500 Sapling / ha and gap filling in the existing plantation considering the survival rate of 80%.

4.1.15 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.

4.1.16 Name of the EIA consultant: M/s. J.M. EnviroNet Pvt. Ltd. [S. No. 41, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0186 valid up to 07/02/2023; Rev. 22, April 18, 2022].

4.1.17 It was apprised to the EAC that the project site of M/s. UTCL is located within the boundary limits of Singrauli District – Severely Polluted Area having CEPI score of 62.59. As per the stand taken by the Ministry no EC can be granted for the developmental projects located within SPAs/CPAs. Further, such proposals are being returned by the Ministry till there is change in improvement in the CEPI score.

Observations of the Committee

4.1.18 The Committee noted the following:

i. EAC noted that the EC was accorded MoEF&CC, letter dated 30/09/2010 for setting up of Dalla Super Cement Works (Clinker - 2.01MTPA, Cement - 2.50 MTPA) for proposed site in the name of Dala Cement Works M/s. Jaiprakash Associates Limited (JAL). Most of the Cement Plant was constructed after obtaining CTE from UPPCB but JAL could not commence the production within the EC validity due to the court case related to forest land. Further, case was transferred to National Green Tribunal (NGT) by Hon'ble Supreme Court.

ii. Subsequently, NGT published an order on 04/05/2016 in judgment of the case (M.A. No. 1166 of 2015 & (I.A. No. 2469 of 2009), M.A. No. 1169 of 2015 (I.A. No. 3877 of 2015) and M.A. No. 1164 of 2015 (I.A. No. 2939 of 2010) In W.P. (C)

No. 202 of 1995 And Original Application No. 494/2015 In C.W.P. No. 130/2011), accepting the recommendations made by CEC on 07/08/2009 against the said project and reverse the order passed by the Forest Settlement office for exclusion of the land notified under section 4 of the Indian Forest Act and directed JAL to obtain prior approval of Central Government under Section-2 of Forest (Conservation) Act 1980.

iii. Thereafter, In-Principle (Stage-1) forest clearance for the diversion of 115.874 ha of forest land has been obtained from MoEF&CC (FC Division) vide letter no. 8-07/2019/FC, dated 15/04/2021 in the name of M/s. Jaiprakash Associate Limited. Diversion of 0.24 ha of forest land (under Conveyor Belt, Rope Way, Road from DSCW Plant to DCW Plant) is included in Mine proposal which is under process.

iv. M/s. Ultratech Cement Limited has acquired the Dalla Super Cement Works and associate limestone mine from M/s. Jaiprakash Associates Limited by Hon'ble National Company Law Tribunal (NCLT) at Allahbad and Mumbai Bench vide its order dated 15/02/2017 and 02/03/2017 respectively.

v. Due to above mentioned events, as per EIA notification, 2006, the EC got expired and the plant operation could not commence within the validity period.

vi. Now, M/s. Ultratech Cement Limited applied for Proposed Cement Plant (Clinker: 3.5 MTPA and Cement 5.0 MTPA), WHRS (17 MW) and D.G. Set (2x1250 KVA).

vii. Project site of M/s. UTCL is located within the boundary limits of Singrauli District – Severely Polluted Area having CEPI score of 62.59. As per the stand taken by the Ministry no EC can be granted for the developmental projects located within SPAs/CPAs. Further, such proposals are being returned by the Ministry till there is change in improvement in the CEPI score.

viii. Stage –I forest clearance has been obtained in the name of M/s. Jaiprakash Associates Limited whereas the requisite transfer of FC in the name of M/s. UTCL has not been obtained till date.

ix. Ambient Air Quality levels are found to be exceeding the permissible limits prescribed under the National Ambient Air Quality Standards. Project proponent has not made available specific air quality action plan to bring down AAQ level within the permissible limits.

x. Water withdrawal permission submitted by PP was not valid, PP shall provide valid water permission from competent authority.

xi. PP shall provide the Reverse Osmosis (RO) plant and capacity of RO plant with ETP.

xii. The amount earmarked towards implementation of Wildlife Conservation Plan shall be revisited.

xiii. A stream is passing through a project site. The PP has not taken suitable steps to stream conservation plan along with contouring, Run -off calculations, disposal etc.

xiv. PP has to submit the Source of fluoride emissions and action plan to mitigate the same.

Recommendations of the Committee

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

4.2 Proposed expansion in Grey Cement Production Capacity from 13,33,530 TPA to 13,69,830 TPA by debottlenecking / internal modification and product mix change of line-

1 (i.e. production of both grey and white clinker & cement from existing grey facility) by implementing white and grey convertible facility in both Line - I & Line - II without any change in total granted capacity of Grey Clinker (8,77,950 TPA0, White Clinker (4,95,000 TPA & White Cement (5,54,400 TPA) by **M/s. J.K. Cement Works, Gotan (Unit of JK Cement Ltd.)** located at Village Gotan, Tehsil Merta, **District Nagaur, Rajasthan**. [Online Proposal No. IA/RJ/IND/261790/2022, File No. IA-J-11011/63/2008-IA-II(I)] – **Environment Clearance under the provision of para 7(ii) of EIA Notification, 2006 – regarding.**

4.2.1 M/s. J.K. Cement Works, Gotan (Unit of JK Cement Ltd.) has made an online application vide proposal no. IA/RJ/IND/261790/2022 dated 06/04/2022 along with copy of Environmental Appraisal report, Form – 2 and certified EC compliance report seeking Environment Clearance (EC) under the provisions of para 7(ii) of EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no '3(b)' under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent

4.2.2 The project of M/s. J.K. Cement Works, Gotan (Unit of JK Cement Ltd.) located in Village Gotan, Tehsil Merta, District Nagaur, Rajasthan is for Proposed expansion in Grey Cement Production Capacity from 13,33,530 TPA to 13,69,830 TPA by debottlenecking / internal modification and product mix change of line-1 (i.e. production of both grey and white clinker & cement from existing grey facility) by implementing white and grey convertible facility in both Line - I & Line - II without any change in total granted capacity of Grey Clinker (8,77,950 TPA0, White Clinker (4,95,000 TPA & White Cement (5,54,400 TPA).

4.2.3 Environmental site settings

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>68.99 ha
[Private Land: 68.99 ha]</td><td>Land use: industrial.</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC OM dated 7/10/2014</td><td>Modification activities under para 7 (ii) are proposed within existing project area of 68.99 ha only. Total land of 68.99 ha is under the possession of the company. No additional land is required for proposed modification under para 7(ii).</td><td>-</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td><u>Plant Site</u>: NIL

<u>Study Area:</u>
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Gotan</td><td>1.0 km</td><td>NE</td></tr>
<tr><td>Maganwali Dhani</td><td>2.7 km</td><td>South</td></tr>
<tr><td>Khokharon ki Dhani</td><td>2.4 km</td><td>NNE</td></tr>
<tr><td>Chandawatan Ki Dhani</td><td>2.0 km</td><td>South</td></tr>
<tr><td>Matwon ki Dhani</td><td>3.0 km</td><td>ENE</td></tr>
<tr><td>Tukliyan</td><td>3.6 km</td><td>East</td></tr>
</table></td><td>R & R is not applicable.</td></tr>
</table>

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Bhilawas</td><td>3.3 Km</td><td>NE</td></tr>
</table>
There are approx. 30 villages in 10 km radius study area.
</td><td></td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all the corners of project site</td><td>
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1.</td><td>26°38’43.09” N</td><td>73°44’05.42” E</td></tr>
<tr><td>2.</td><td>26°38'40.81" N</td><td>73°44'6.40" E</td></tr>
<tr><td>3.</td><td>26°38'39.69" N</td><td>73°44'0.59" E</td></tr>
<tr><td>4.</td><td>26°38'38.41"N</td><td>73°44'0.93"E</td></tr>
<tr><td>5.</td><td>26°38'35.81"N</td><td>73°43'55.59"E</td></tr>
<tr><td>6.</td><td>26°38'34.43"N</td><td>73°43'54.13"E</td></tr>
<tr><td>7.</td><td>26°38'31.74"N</td><td>73°43'55.33"E</td></tr>
<tr><td>8.</td><td>26°38'30.60"N</td><td>73°43'51.57"E</td></tr>
<tr><td>9.</td><td>26°38'33.87"N</td><td>73°43'50.26"E</td></tr>
<tr><td>10.</td><td>26°38'32.26"N</td><td>73°43'44.83"E</td></tr>
<tr><td>11.</td><td>26°38'30.08"N</td><td>73°43'45.60"E</td></tr>
<tr><td>12.</td><td>26°38'28.43"N</td><td>73°43'39.97"E</td></tr>
<tr><td>13.</td><td>26°38'30.44"N</td><td>73°43'39.18"E</td></tr>
<tr><td>14.</td><td>26°38'29.59"N</td><td>73°43'35.92"E</td></tr>
<tr><td>15.</td><td>26°38'26.56"N</td><td>73°43'36.08"E</td></tr>
<tr><td>16.</td><td>26°38'27.61"N</td><td>73°43'31.34"E</td></tr>
<tr><td>17.</td><td>26°38'30.10"N</td><td>73°43'30.20"E</td></tr>
<tr><td>18.</td><td>26°38'27.54"N</td><td>73°43'22.32"E</td></tr>
<tr><td>19.</td><td>26°38'24.28"N</td><td>73°43'22.79"E</td></tr>
<tr><td>20.</td><td>26°38'23.18"N</td><td>73°43'18.78"E</td></tr>
<tr><td>21.</td><td>26°38'22.39"N</td><td>73°43'18.69"E</td></tr>
<tr><td>22.</td><td>26°38'16.25"N</td><td>73°43'20.09"E</td></tr>
<tr><td>23.</td><td>26°38'15.32"N</td><td>73°43'16.26"E</td></tr>
<tr><td>24.</td><td>26°38'15.13"N</td><td>73°43'16.19"E</td></tr>
<tr><td>25.</td><td>26°38'14.00"N</td><td>73°43'10.69"E</td></tr>
<tr><td>26.</td><td>26°38'16.26"N</td><td>73°43'10.94"E</td></tr>
<tr><td>27.</td><td>26°38'27.30"N</td><td>73°43'6.93"E</td></tr>
<tr><td>28.</td><td>26°38'43.34"N</td><td>73°43'25.98"E</td></tr>
<tr><td>29.</td><td>26°38'54.19"N</td><td>73°43'47.11"E</td></tr>
<tr><td>30.</td><td>26°38'52.97"N</td><td>73°43'48.03"E</td></tr>
<tr><td>31.</td><td>26°38'51.38"N</td><td>73°43'45.23"E</td></tr>
<tr><td>32.</td><td>26°38'45.26"N</td><td>73°43'48.47"E</td></tr>
<tr><td>33.</td><td>26°38'44.88"N</td><td>73°43'49.41"E</td></tr>
<tr><td>34.</td><td>26°38'45.87"N</td><td>73°43'53.21"E</td></tr>
<tr><td>35.</td><td>26°38'40.66"N</td><td>73°43'55.60"E</td></tr>
</table>
</td><td>-</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>324 to 333 m above mean sea level</td><td>-</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No Forest Land is Involved in the plant site.</td><td>-</td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala,</td><td>Project site: NIL.
Study area:</td><td>-</td></tr>
</table>

S No	Particulars	Details	Remarks
	Natural Drainage, Canal etc.) exists within the project site as well as study area	**Water Body** / **Distance** / **Direction**: Banka Bala Nadi / 8.0 km / SE; Ratri Nadi / 9.0 km / NW	
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	NIL	-

4.2.4 The existing project was accorded Environmental Clearance from MoEF&CC vide their letter no. J-11011/63/2008-IA (II) dated 18/08/2008 and expansion in EC dated 06/12/2021. Latest consent to operate for the existing unit was accorded by Rajasthan State Pollution Control Board vide letter No. F(Tech)/Nagaur (Merta)/5(1)/2009-2010/7888-7890, dated 19/12/2017. The validity of the CTO is up to 30/09/2022.

4.2.5 Implementation status of the existing EC:

S No	Facilities	Units	As per EC dated 18/08/2008	As per EC dated 06/12/2021 and EC amendment dated 07/02/2022	Implementation Status on 06/04/2022	Production as per CTO
1.	Clinker	TPA	Grey: 2,62,500	Grey -8,77,950; OR White - 4,95,000	Grey: 2,62,500	Grey:2,62,500
2.	Cement	TPA	Grey: 4,71,900	Grey -13,33,530; OR White - 5,54,400	Grey: 4,71,900	Grey:4,71,900

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

S No	Plant Equipment/ Facility	Existing Facilities as per EC dated 06/12/2021 and corrigendum dated 07/02/2022 (A)		Proposed amendment under para 7 (ii) (B)		After proposed amendment (A+B)		Remarks
		Configuration (TPH)	Capacity (TPA)	Configuration (TPH)	Capacity (TPA)	Configuration (TPH)	Capacity (TPA)	
1.	Clinker	**Line- I** Kiln-1: 35	Grey - 2,62,500	No change	Production of either Grey Clinker (2,62,500) or White Clinker (2,16,660) at a time	Kiln- 1: 35	Production of either Grey Clinker (2,62,500) or White Clinker (2,16,660) at a time	Production of either grey clinker or white clinker at a time with convertible facility in both the lines Total white and grey clinker production will remain same as per exiting granted EC. Total white clinker production in both the lines (Line - I and Line - II) will not exceed the
		Line-II Kiln-2: 80	Grey - 6,15,450 or	No change	No change	Kiln-2: 80	Grey- 6,15,450 or	

S No	Plant Equipment/ Facility	Existing Facilities as per EC dated 06/12/2021 and corrigendum dated 07/02/2022 (A)		Proposed amendment under para 7 (ii) (B)		After proposed amendment (A+B)		Remarks
		Configuration (TPH)	Capacity (TPA)	Configuration (TPH)	Capacity (TPA)	Configuration (TPH)	Capacity (TPA)	
			White - 4,95,000				White - 4,95,000	4,95,000 TPA capacity
	Total Clinker	Kiln-1: 35 Kiln-2: 80	Grey- 8,77,950; White- 4,95,000	No Change	Production of either Grey Clinker (2,62,500) or White Clinker (2,16,660) at a time.	Kiln-1: 35 Kiln-2: 80	Grey- 8,77,950; White- 4,95,000	No change in overall production.
2.	Cement	**Line - I** Mill: 65	Grey - 4,71,900	Increase Mill capacity from 65 to 70 TPH	Grey - 5,08,200 or White- 2, 42,659	Mill: 70	Grey - 5,08,200 or White- 2, 42,659	Expansion in grey cement production by debottlenecking/ internal modification of Line-1. Production of either grey cement or white cement at a time with convertible facility in both the lines. Production of white cement from line-1 by changing raw mix and keeping white cement capacity same for both lines-I & II as granted in exiting EC i.e. 5,54,400 TPA.
		Line- II Mill: 2x150	Grey - 8,61,630; White - 5,54,400	No change	No change	Mill: 2x150	Grey - 8,61,630; White - 5,54,400	
	Total Cement	Mill: 65 Mill: 2x150	Grey - 13,33,530; White- 5,54,400	Increase Mill capacity from 65 to 70 TPH	Grey Cement (5,08,200) or White Cement (2, 42,659) at a time	Mill: 70 Mill: 2x150	Grey - 13,69,830; White- 5,54,400	Increase the Grey cement production by 36,300 TPA

Note: *Unit will produce either Grey or White clinker at a time and proportionate Grey or White Cement (Grey and White convertible facility) in both the lines (Kiln - 1 & 2).*

4.2.7 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	Raw Material	Requirement (TPA)			Source	Distance /*Mode of Transportation
		Existing	Additional	Total		
Grey Cement						
1.	Limestone	11,64,240	Nil	11,64,240	Nearby Mines & local Vendors	13 - 22 km/ Road

S No	Raw Material	Requirement (TPA)			Source	Distance /*Mode of Transportation
		Existing	Additional	Total		
2.	Clay / Feldspar	2,05,590	Nil	2,05,590	Own Mines, Existing / local vendors	20 - 250 km/ Rail and Road
3.	Laterite/ Red Ochre/ Fluorspar				Existing / local vendors	300 - 750 km / Rail and Road
4.	Fly Ash	4,66,620	12705	479625	Suratgarh TPP, Existing / Local Vendors	400 km/ Rail and Road
5.	Gypsum/ Selenite	76,230	2069	78299	Own Existing Mines at Thob/ Existing vendors	500 km/ Rail and Road
6.	Grinding aid	280.5	1.95	282.45	Existing / local vendors	500 km/ Rail and Road
White Cement						
1.	Limestone	6,33,270	Nil	6,33,270	Nearby Mines & local Vendors	13 - 22 km/ Road
2.	Clay / Feldspar / Fluorspar	1,38,930	Nil	1,38,930	Own Mines, Existing / local vendors	20 - 250 km/ Rail and Road
3.	Gypsum/ Selenite	22,110	Nil	22,110	Own Existing Mines at Thob/ Existing vendors	250 - 500 km/ Rail and Road
4.	Grinding aid and PI	44,550	Nil	44,550	Existing / local vendors	500 km/ Rail and Road

4.2.8 The existing water requirement for the plant is 1166 m^3/day; which will remain same after proposed expansion done by debottlenecking / internal modification. Water is being / will sourced from Ground Water. Permission for withdrawal of 1166 m^3/day ground water has been obtained from CGWA vide letter no. 21-4/247/WR/CGWA/2008-1792 dated 30/11/2015. Renewal of NOC for withdrawal of 1166 m^3/day has been obtained from CGWA vides NOC no. CGWA/NOC/IND/REN/2/2021/6057; corrigendum dated 30/07/2021 (valid up to 29/11/2022).

4.2.9 Existing power requirement is 15.2 MW; which was obtained from AVVNL, Open Excess Power (IEX) & CPP. The power requirement for the proposed expansion project be will remain same.

4.2.10 Baseline Environmental Studies (Post project monitoring data)

Period	June to December, 2021

<table>
<tr><td>AAQ parameters at 04 locations</td><td>$PM_{2.5}$ - 31.1 to 38.31 µg/m^3
PM_{10} - 67.92 to 81.45 µg/m^3
SO_2 - 7.14 to 13.59 µg/m^3
NO_2 - 13.14 to 22.69 µg/m^3</td></tr>
<tr><td>AAQ modelling (Incremental GLC)</td><td>The incremental GLC concentration due to proposed expansion and product - mix project is reported nil because there will be no increase in the volumetric flow of the existing stack attached with cement mill of Line- 1 due to the proposed modification in the cement mill, which will reduce the overall particle size and circulation load. Hence, it will increase the efficiency of cyclone separator and thus no change in volumetric flow and ultimately no increase in emission level w.r.t existing emission as per granted EC.</td></tr>
<tr><td>Ground water quality at 11 locations</td><td>pH - 7.46 to 7.96
Total Hardness - 216.98 to 713.25 mg/l
Alkalinity - 313.58 to 402.65 mg/l
TDS - 726 to 3121 mg/l</td></tr>
<tr><td>Surface water quality</td><td>Surface water samples could not be collected; as all the water bodies were seasonal and were found dry during the study period.</td></tr>
<tr><td>Noise levels</td><td>Noise Level During Day Time - 53.28 to 66.99 Leq dB (A)
Noise Level During Night time - 43.21 to 56.3 Leq dB (A)</td></tr>
<tr><td>Traffic assessment study findings</td><td>▪ Traffic survey was conducted at MDR 75 (adjacent in ENE direction from the plant site).
▪ Transportation of raw material is being / will be done 100 % by road, fuel (90 % by road and 10 % by rail) & finished product will be done 20 % by road & 80% by rail.
▪ Existing PCU is 158.31 PCU/hr on MDR 75 and existing level of service (LOS) is:
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr)</th><th>C (Capacity in PCU/hr)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>MDR 75</td><td>158.31</td><td>625</td><td>0.25</td><td>B</td></tr>
</table>
▪ PCU load after proposed project will be 158.31 (Existing) + 0.6 (Additional) PCU/hr and level of service (LOS) will be:
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr)</th><th>C (Capacity in PCU/hr)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>MDR 75</td><td>158.91</td><td>625</td><td>0.25</td><td>B</td></tr>
</table>
*Note: Capacity as per IRC -. 64 - 1990 Guidelines for capacity of roads for rural areas
Conclusion: The level of service will remain same after proposed amendment as B (very good) after including additional traffic due to proposed project.</td></tr>
<tr><td>Flora and fauna</td><td>No schedule - 1 species</td></tr>
</table>

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

Source	Section	Type of Waste	Waste	Quantity	Treatment / Disposal
Cement Plant	APCE	SW	Dust	-	Dust collected from various APCEs will be totally recycled into the process.
STP	-	SW	STP Sludge	1.15 Tonnes/ year	Used as manure for greenbelt development / plantation
MSW	-	SW	MSW	5 kg/day	MSW is being/will be collected & segregated & Bio-degradable

Source	Section	Type of Waste	Waste	Quantity	Treatment / Disposal
					waste is being/will be converted into organic manure by vermicomposting & will be used for greenbelt development
Plant Maintenance	Different sections	HW	Used Oil	35 KL/ Annum	Sent to the authorized CPCB recyclers

4.2.12 Public Consultation: (As part of the EC dated 06/12/2021)

Details of advertisement given	15th December, 2019
Date of public consultation	17th January, 2020
Venue	Gram Panchayat Bhawan, Gotan, Tehsil: Merta, District: Nagaur (Rajasthan)
Presiding Officer	District Collector and District Magistrate, Nagaur
Major issues raised	Employment, Environment & Pollution, Health and Education

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 Lacs)
			01st Year	02nd Year	03rd Year	
1.	Education	Renovation of existing School Buildings	05 (Village Gotan)	01 (Village Tukanliya) 01 (Village Dhannapa)	01 (Village Talanpur) 01 (Village Harslav)	105
		Provide Interactive smart classes equipment / gadgets	05 (Village Gotan)	05 (Village Tukanliya) 05 (Village Dhannapa)	05 (Village Talanpur) 05 (Village Harslav)	50
		Providing sports equipment to Govt. school	Village Gotan	Village Tukanliya & Village Dhannapa	Village Talanpur & Village Harslav	50
2.	Health	Providing Oxygen Machine, Bed, Wheel Chair, Stretcher in Public Health Centre	01 Nos. each (Village Gotan)	01 Nos. each (Village Tukanliya) & (Village Dhannapa)	01 Nos. each (Village Talanpur) & (Village Harslav)	60
3.	Skill Development	Establishment of Skill Development centre for Youth (ITI)	1 Nos. (Village Gotan)	-	-	35
		Establishment of training facilities (Achar making, basket & flower pot making, sewing & tailoring,	1 Nos. (Village Gotan)	1 Nos. (Village Tukanliya) & (Village Dhannapa)	1 Nos. (Village Tukanliya) & (Village Dhannapa)	85

S No	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement			Cost (in Lacs)
			01st Year	02nd Year	03rd Year	
		Dairy farming etc.)				
4.	Goshala Development	Renovation of Ghoshala	1 Nos. (Village Gotan)	1 Nos. (Village Tukanliya)	1 Nos. (Village Dhannapa)	30
5.	Infrastructure Development	Construction of playground at school	1 Nos. (Village Gotan)	-	-	10
		Construction of Rain Water Harvesting Structure	05 (Village Gotan)	05 (Village Tukanliya) 05 (Village Dhannapa)	05 (Village Talanpur) 05 (Village Harslav)	35
		Establishment of water plant for safe drinking water	01 (Village Tukanliya)	01 (Village Dhannapa) 01 (Village Talanpur)	01 (Village Harslav)	30
		Installation of Solar Lights along roads	20 (Village Gotan)	20 (Village Tukanliya) 20 (Village Dhannapa)	20 (Village Talanpur) 20 (Village Harslav)	25
6.	Plantation	Distribution/Plantation of saplings and tree guard in the village Govt. offices and schools	1000 (Village Gotan)	800 Nos. (Village Tukanliya) 800 (Village Dhannapa)	800 Nos. (Village Harslav)	17
Total						***532***

4.2.13 Existing capital cost of the project was of the project is Rs. 955 Crores (Existing production Line - 1: 155 Crores and Proposed Production Line - 2: 800 Crores). The capital cost for the proposed expansion cum modification of Line - 1 is Rs. 0.70 Crores & capital cost for environmental protection measures is Rs. 0.10 Crores. The annual recurring cost towards the environmental protection measures for proposed expansion -Rs. 0.5 lakh per annum. There is no direct additional employment generation from the proposed expansion project of Line - 1.

S No	Particular	Existing (Rs. in crores)				Proposed (Rs. in crores)	
		Line - I (Implemented)		Line - II (Not Implemented)		Capital Cost	Recurring Cost
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost		
1.	Air & Noise Pollution Control & House Keeping measures	6.4	0.35	26	1.5	0.10	0.5
2.	Water Pollution	3.5	0.16	15	0.7	-	-

S No	Particular	Existing (Rs. in crores)				Proposed (Rs. in crores)	
		Line - I (Implemented)		Line - II (Not Implemented)		Capital Cost	Recurring Cost
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost		
	Control and Rain Water Harvesting Measures						
3.	Environment Monitoring and management	3.0	0.30	12	1.3	-	-
4.	Greenbelt Development	2.1	0.19	07	0.7	-	-
	Total	**15**	**1.0**	**60**	**4.2**	**0.10**	**0.5**

4.2.14 Existing greenbelt has been developed in 19 ha area which is about 27.54 % of the total project area of 68.99 ha with total sapling of 14871 trees. Proposed greenbelt will be developed in 3.76 ha which is 5.4 % of the total project area. Thus total 22.76 ha area (33% of the total project area) will be developed as greenbelt. A 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. Total no. of 24271 saplings will be planted and nurtured in 22.76 hectares in 4 years.

4.2.15 It has been reported that following will be resource consumption after the proposed change:

Particulars	As per EC dated 6th December, 2021	After Proposed change under Para 7(ii)	% Increase
Land	68.99	68.99	No additional land is required.
Greenbelt	22.76 ha	22.76 ha	33% of total plant area has already been proposed to develop; out of which 19 ha area has already been developed
Water	1166	1166	No additional water is required
Power	15.2	15.2	No change
Raw materials	**Grey Cement** Limestone- 11,64,240 TPA Clay/ Feldspar & Laterite/Red Ochre/ Fluorspar –2,05,590TPA Fly Ash – 4,66,620 TPA Gypsum/Selenite – 76,230 TPA Grinding aid – 280.5 TPA	Grey Cement Limestone- 11,64,240 TPA Clay/ Feldspar & Laterite/Red Ochre/ Fluorspar – 2,05,590TPA Fly Ash –4,79,325 TPA Gypsum/ Selenite – 78,299 TPA Grinding aid – 282.45TPA	Limestone- No change Clay/ Feldspar & Laterite/Red Ochre/ Fluorspar - No Change Fly Ash - 2.7% increase Gypsum/Selenite- 2.7% increase Grinding aid- 0.69 % increase
	White Cement Limestone- 6,33,270 TPA Clay / Feldspar / Fluorspar- 1,38,930 TPA	**White Cement** Limestone- 6,33,270 TPA Clay / Feldspar / Fluorspar- 1,38,930 TPA	Limestone- No change Clay / Feldspar / Fluorspar- No Change Gypsum/ Selenite - No Change Grinding aid and PI- No Change

	Gypsum/ Selenite - 22,110 TPA Grinding aid and PI- 44,550 TPA	Gypsum/ Selenite - 22,110 TPA Grinding aid and PI- **44,550** TPA	
Products	**Clinker** - Grey-8,77,950 TPA; White-4,95,000 TPA **Cement** - Grey -13,33,530 TPA; White-5,54,400TPA	**Clinker** - Grey-8,77,950 TPA; White-4,95,000 TPA **Cement** - Grey - 13,69,830; White-5,54,400	**Grey Clinker** - No Change **White Clinker**- No change **Grey Cement** production will increase by **2.7%** and no change in white cement

4.2.16 Pollution load assessment:

Particulars	**As per EC dated 6th December, 2021**	**After Proposed change under Para 7(ii)**	**% Increase/ decrease**
Air	PM - 19.77	PM - 19.77	No Change
	Sox - 36.53	Sox - 36.53	No Change
	NOx –258.65	NOx - 258.65	No Change
Domestic waste water	122	122	No change; Domestic waste water is being/will be treated in STP and recycled water is being/will be used in greenbelt.
Solid & Hazardous Waste	Sludge - 1.15 TPA	Sludge - 1.15 TPA	No change
	MSW - 5 kg/day	MSW - 5 kg/day	No change
	Waste/Used oil: 35 KLA	Waste/Used oil: 35 KLA	No change
Traffic Load	Existing: 196 Trucks	After Proposed expansion: 201 trucks	Increase in 2.5 % traffic

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

4.2.18 Name of the EIA consultant: M/s. J.M. EnviroNet Pvt. Ltd. [S. No. 41, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0186 valid up to 07/02/2023; Rev. 22, April 18, 2022].

Certified compliance report from Regional Office:

4.2.19 The Status of compliance of earlier EC was obtained from Integrated Regional Office, Jaipur vide letter No. IV/Env/R/Th.- 32/581/2008 dated 08/03/2022 in the name of M/s. J K Cement Works, Gotan. All the conditions are complied with.

4.2.20 During the meeting, project proponent submitted written submission on the following points:

i. PP submitted following measures are being / will be adopted for safe handling of Ammonia:
   - SNCR system will use aqueous Ammonia of concentration less than 25% only and is stored in double layer storage tank.

- Ammonia Gas Detectors has been installed at the storage site and at the kiln stack so that leakage/seepage can be detected, audio visual signal has been provided during leakage and water Sprinkler system has been provided and is operates automatically on storage tank to dilute ammonia in case of leakage.
- Dyke of double capacity has been provided surrounding to the tank to arrest dilute ammonia and water.
- Emergency Shower and Eye Wash System has been provided, so that for safety of personnel, if any person comes in the contact of ammonia.
- Emergency evacuation plan has been prepared and is displayed at the site.
- Slip ammonia measurement analyzer with laser technology will be installed at stack for continuous monitoring and control.
- All safety measure as mentioned above are audited annually by external agency.

ii. Green belt area from 19 ha to 23 ha to achieve 33% of the project area will be completed in coming monsoon season FY22-23. Total planation will be increased from existing 22271 to 58000 no's to maintain 2500 no's per ha.

iii. PP submitted the measures to control fugitive emission in compliance to CREP guidelines as developed by the CPCB given as below:
- High efficiency bag filter has been provided at the stack of kiln, coal mill, cement mill and ESP at the stack of clinker cooler. PM Emission is being /will be maintained < 30 mg/Nm^3.
- NO_x emission level will be maintained <800mg/Nm^3 and SO_2 <100 mg/Nm^3
- High efficiency bag filters have been provided at all the transfer points and enclosures are provided at all material transfer points to control fugitive emission. All bag filters are being / will be maintained to maintain ambient air quality.
- All roads and truck parking area are cemented and is being/will be maintained neat and clean by use of Vacuum sweeping machine.
- All conveyor belts are covered and will be maintained.
- Dry fly ash is being/will be transported in closed tankers and will be stored in silo.
- Clinker, Cement and Fly Ash is being/will be stored in silos.
- All process raw materials are handled and stored in covered shed.
- Anti-dust gun has been deployed to operate during natural dust storm to control the fugitive emission.
- Transportation of all the raw materials and finished product is being/ will be done with tarpaulin cover.
- Proper maintenance of vehicles is being/will be done to reduce gaseous emissions.
- Regular ambient air quality and stack emission monitoring is being/will be carried out as per CPCB / RSPCB norms to ensure that ambient air quality standards will be met all the time.

Observations of the Committee

4.2.21 The EAC noted the following:

i. The existing project was accorded Environmental Clearance from MoEF&CC vide their letter no. J-11011/63/2008-IA (II) dated 18/08/2008 and expansion in EC dated 06/12/2021 for Grey Clinker of 8,77,950 TPA or White Clinker 4,95,000 TPA

& Grey Cement of 13,33,530 TPA or white Cement 5,54,400 TPA by installation of New Line - II.

ii. Instant proposal is for seeking EC under para 7(ii) for Production of either Grey Clinker (2,62,500) or White Clinker (2,16,660) at a time in Line- I and increase the capacity of grey cement from 4,71,900 TPA to 5,08,200 TPA and proposed for production either Grey Cement of 5,08,200 TPA or White Cement of 2, 42,659 at a time in Line -I.

iii. The proposed amendment is proposed within existing project area of 68.99 ha along-with same water and power consumption.

iv. PP submitted that there is no change in load of pollution after proposed amendment.

v. The Committee noted that the addendum report submitted along with pre-feasibility report is found to be in order, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found that the reported baseline data and incremental GLC due to the proposed project are within NAAQ standards.

vi. The Committee deliberated upon the certified compliance report of RO and found that PP has to comply with the EC condition for continuous emission monitoring system and green belt.

vii. Instant proposal was considered under para 7(ii)a by the EAC and the Committee dispensed with the requirement of conducting public hearing.

viii. Committee deliberate upon written submission submitted during meeting and it was found satisfactory.

Recommendations of the Committee

4.2.22 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the para 7(ii) 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. Three tier Green Belt area from 19 ha to 23 ha to achieve 33% of the project area shall be completed by monsoon season 2022 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. Compliance status in this regard, shall be submitted to concern Regional Office of the MoEF&CC.

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

iii. Ammonia Gas Detectors shall be installed at the storage site and at the kiln stack for detecting leakage/seepage of ammonia gas.

iv. Particulate matter emission from all the stacks shall not exceed 30 mg/Nm^3.

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

vi. 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.
vii. Slip roads shall be provided at the gates and along crossings on main roads.
viii. Covered sheds and toe walls shall be provided for raw material storage to check any attrition of raw materials. Storage sheds shall have garland drains, material traps and shall be built on concrete platforms.
ix. Performance monitoring of all Pollution Control Devices shall be carried out annually and report shall be submitted to MoEF&CC, Regional Office.
x. 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.
xi. 1166 KLD water after expansion shall be met from ground water sources as approved by the competent Authority. Surface water sources like mine pit water, rain water harvested water and use of treated sewage water from nearby municipal corporations shall be explored and action plan in this regard shall be submitted to the Regional Office of the MoEF&CC for gradual phase out of ground water in a time frame of two years from the date of issue of EC.
xii. Rain Water Harvesting shall be carried out to recharge 200 % of annual ground water withdrawal as committed by the PP.
xiii. Particulate matter emissions from all the stacks shall be less than 30 mg/Nm3.
xiv. Petcoke dosing shall be controlled automatically to control SO2 emission from chimney within the prescribed limits.
xv. 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.
xvi. Develop a control strategy and 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, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels.

B. General Conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 Continuous Emission Monitoring System (CEMS) at process stacks to monitor stack emission as well as 4 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from

time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

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

iv. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash;

v. The project proponent shall provide wind shelter fence and chemical spraying on the raw material stock piles;

vi. Ventilation system shall be designed for adequate air changes as per the prevailing norms for all tunnels, motor houses, and 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; 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 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.

vii. Tyre washing facilities shall be provided at the entrance and 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. 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 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.
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. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
xiii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

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

4.3 Proposed Greenfield Alumina Refinery of 1,50,000 TPA and 2x10 MW Captive Cogeneration Power Plant by **M/s. Maa Kardargarhi Alumina Refinery Private Limited** located at Village Chiranga, Tehsil Batauli, **Distrct Surguja, Chhattisgarh** [Online Proposal No. IA/CG/IND/266728/2020, File No. J-11011/201/2020-IA.II(I)] – **Environment Clearance – regarding.**

4.3.1 M/s. Maa Kardargarhi Alumina Refinery Private Limited has made an online application vide proposal no. IA/CG/IND/266728/2020 dated 15/04/2022 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(a) Metallurgical Industries (Ferrous and Non-ferrous) and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

4.3.2 The EAC observed that PP has mentioned Python *molurus* (Python) and Varanus *Benghalensis* (Monitor Lizard) in Table 3.13 at page no 82 of the EIA/EMP uploaded on PARIVESH which are Schedule I species as per The Wild Life (protection) Act, 1972. whereas, in form 2 at S No 28 mentioned No against *Whether there is Presence of Schedule-I Species?* Also not provided the conservation plan for Schedule - I species.

4.3.3 In view of this, the Committee recommended to return the proposal in its present form and submit the revised application as per the provisions of EIA Notification, 2006 along with requisite conservation plan for schedule I species.

4.4 Proposed Integrated Steel Plant of 3.1 million TPA (Finished Steel) with 230 MW (80 MW WHRB/TRT based and 150 MW Coal Based) Captive Power Plant by **M/s. Rashmi Green Hydrogen Steel Pvt. Ltd** located at Village Lanchhmapur & Barkola, P.S. Kharagpur (Local), **District West Medinipur, West Bengal** [Online Proposal No. IA/WB/IND/261738/2022, File No. IA-J-11011/102/2022-IA-II(IND-I)] – **Prescribing of Terms of Reference – regarding.**

4.4.1 M/s. Rashmi Green Hydrogen Steel Pvt. Ltd has made an application online vide proposal no. IA/WB/IND/261738/2022 dated 02/04/2022 in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous), 1(d) Captive Power Plant, 2 (b) Mineral beneficiation and 4(b) Coke oven Plant under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

4.4.2 The committee observed the following:

i. The land requirement for the project is reported to be 260 Acres (105.218 Hectares). The land is further divided in two plots (at a distance 1.9 km apart) crossing the State Highway. Both the plots are proposed to be connected by a village panchayat road.

ii. The State Highway crossing details and the village panchayat road details have not been made available.
iii. Project proponent was unable to explain the mode of transport of materials to be adopted between these two parcels of land.
iv. On perusal of the KML file, it is observed that some built up structures are already visible at the site. However, the said portion of land containing built up structures was excluded by the proponent in the KML file presented before the EAC. No explanation is made available by the proponent in this regard.
v. From plot-1 & 2- Griffins International School-0.45 km & Khatranga School 0.46 are in close proximity to the project site. Environmental safeguards to be adopted in this regard has not been enumerated.

4.4.3 In view of the foregoing and after deliberations, the Committee recommended that subcommittee of EAC Industry-1 shall undertake a site visit to the project site and based on the site visit report the instant proposal for ToR shall be considered by the EAC.

4.5 Proposed Expansion of Steel Plant and Regularization of partly constructed Iron Ore Pellet Plant by **M/s. Crest Steel & Power Private Limited** located at Village Joratarai, Post: Mangatta, Tehsil & **District: Rajnandgaon, Chhattisgarh.** [Online Proposal No. IA/CG/IND/261985/2022; File No. J-11011/753/2008-IA.II(I)] – **Prescribing of Terms of Reference – regarding.**

4.5.1 It was apprised to the EAC that the project proponent vide email dated 26/04/2022 expressed their inability to participate in the meeting and requested for withdrawal of the proposal cited above.

4.5.2 In view of the above and after detailed deliberations, the Committee recommended that proposal to be returned in its present form.

28th April, 2022

4.6 Proposed Expansion of Steel Plant by enhancement of existing 2x250 m^3 Blast Furnace volume to 2x300 m^3 Blast Furnace volume, installation of 3x4 MVA Electric Arc Furnaces, 0.6 MTPA Sinter Plant and 2,52,000 TPA DI Pipe Plant by **M/s. Jai Balaji Industries Limited (Unit -III)** Located at Banskopa Village, Kanksa Taluk, **Paschim Bardhaman District, West Bengal.** [Online Proposal No. IA/WB/IND/262233/2022, File No. J-11011/724/2008-IA. II(I)] **– Environment Clearance – regarding.**

4.6.1 M/s. Jai Balaji Industries Limited (Unit- III) has made an online application vide proposal no. IA/WB/IND/262233/2022 dated 17/03/2022 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 schedule no. 3(a) Metallurgical Industries (Ferrous and Non/ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

Details submitted by Project proponent

4.6.2 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	Validity of ToR

15/12/2018	3rd meeting [EAC (Industry-I)], held on 9-11th January, 2019.	Standard Terms of Reference along with Specific and Additional ToR	17/01/2019	16/01/2023

4.6.3 The project of M/s Jai Balaji Industries Limited (Unit - III) located at Village: Banskopa, P.O.: Rajbandh, Tehsil & P.S.: Kanksa, District: Paschim Bardhaman in West Bengal State is for expansion of steel plant for enhancement of Sinter plant from 6,08,256 to 12,08,256 TPA; hot metal/ Pig Iron from 5,04,000 TPA to 6,12,500 TPA (by increase in volume of existing BF from 2x250 m^3 to 2x300 m^3); DI pipe plant from 2,52,000 TPA to 5,04,000 TPA and new installation of ferro Alloy plant of 39,600 TPA (EAF: 1x60T).

4.6.4 Environmental Site Settings:

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>Total: 72.84 ha (180 Acres)</td><td>Land use: Industrial</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>The expansion project is proposed in existing 72.84 ha land only. Complete 72.84 ha land is under possession of M/s. Jai Balaji Industries Limited.</td><td>No additional land will be acquired for proposed expansion.</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any</td><td><table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Banskopa Village</td><td>Adjacent to plant boundary</td><td>SE corner and NE corner of project site.</td></tr><tr><td>Air force Base</td><td>4.4 km</td><td>ESE</td></tr></table></td><td>No R&R is involved.</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site</td><td><table><tr><th>Points</th><th>Latitudes</th><th>Longitudes</th></tr><tr><td>1</td><td>23°29'26.76"N</td><td>87°22'24.95"E</td></tr><tr><td>2</td><td>23°29'36.47"N</td><td>87°22'13.16"E</td></tr><tr><td>3</td><td>23°29'05.28"N</td><td>87°21'52.30"E</td></tr><tr><td>4</td><td>23°28'52.29"N</td><td>87°22'6.28"E</td></tr></table></td><td>-</td></tr>
<tr><td>V.</td><td>Elevation of the project site</td><td>65 - 73 m above mean sea level</td><td>-</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No involvement of forest land.</td><td>-</td></tr>
<tr><td>vii.</td><td>Water body exists within the project site as well as study area</td><td><u>Project site</u>: Nil

<u>Study area</u><table><tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr><tr><td>DVC canal</td><td>0.38 km</td><td>South</td></tr><tr><td>Village Pond</td><td>0.41 km</td><td>SE</td></tr><tr><td>Damodar River</td><td>4.50 Km</td><td>SW</td></tr></table></td><td>-</td></tr>
<tr><td>viii.</td><td>Existence of ESZ/ ESA/ national park /</td><td>NIL</td><td>-</td></tr>
</table>

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

4.6.5 The existing project was accorded environmental clearance vide lr.no. J-11011/724/2008-IA. II (I) dated 30/08/2010. Consent to Operate for the existing units were accorded by West Bengal Pollution Control Board vide Memo No. 1302/dr_co_s/12/0031 dated 31/07/2019. CTO is valid up to 31/07/2024.

4.6.6 Implementation status of the existing EC:

S No	Name of Units	Capacity as per EC dated 30/08/2010 (in TPA)	Implementation status as on April 2022	Capacity as per CTO
1.	Iron ore beneficiation	6,00,000	Dropped	--
2.	Pellet Plant	6,00,000	Dropped	--
3.	Sinter Plant	6,08,256	6,08,256	6,08,256
4.	Rolling Mill	6,00,000	Dropped	--
5.	Blast Furnace	5,04,000 (2x250 m^3)	5,04,000 (2x250 m^3)	5,04,000 (2x250 m^3)
6.	Pulverized Coal Injection (PCI)	97,200	97,200	97,200
7.	Desulphurization	5,04,000	Dropped	--
8.	Electric Arc Furnace for Steel Making	4,50,000 (1x60 T)	4,50,000 (1x60 T)	4,50,000 (1x60 T)
9.	Oxygen Plant	58,320	58,320	58,320
10.	Lime Kiln	54,000	Dropped	--
11.	Ductile Iron Pipe	2,52,000	2,52,000	2,52,000
12.	Producer Gas Plant	4x3000 m^3	Dropped	--

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

S No	Facilities	Capacity as per EC dated 30/08/2010		Proposed Capacity		Final after expansion	
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
1	Sinter Plant	--	6,08,256	--	6,00,000	--	12,08,256 TPA
2	Blast Furnace	(2x250 m^3)	5,04,000 TPA	Increasing MBF volume from 2x250 m^3 to 2x300 m^3)	1,08,500 TPA	(2x300 m^3)	6,12,500 TPA
3	Pulverized Coal Injection (PCI)	--	97,200 TPA	--	--	--	97,200 TPA
4	Electric Arc Furnace for Steel Making	(1x60 T)	4,50,000 TPA	--	--	(1x60 T)	4,50,000 TPA
5	Electric Arc Furnace for		--	3x4 MVA	Fe-Ch 39,600	3x4 MVA	Fe-Ch 39,600

S No	Facilities	Capacity as per EC dated 30/08/2010		Proposed Capacity		Final after expansion	
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
	Ferro Alloy				TPA		TPA
6	Oxygen Plant	--	58,320 TPA	--	--	--	58,320 TPA
7	Induction Furnace with Ductile Iron Pipe Plant		2,52,000 TPA		2,52,000 TPA		5,04,000 TPA

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

S No	Raw Material	Annual Requirement (in TPA)			Source	Distance (in km)	Transportation		
		Under Operation	Expansion / Proposed	Total			Internal	Rail	Road
	SINTER PLANT								
1	Iron ore fines	590000	550000	11,40,000	Barbil-Joda, Orissa	325	-	11,40,000	-
2	Limestone with fines	84000	82000	1,66,000	Katni MP	875	-	1,66,000	-
4	Dolomite	60000	56000	1,16,000	Bhutan	968	-	1,16,000	-
5	Coke Breeze	60000	54000	1,14,000	Local Market	200	-	-	1,14,000
	BLAST FURNACE								
1	Sinter	800000	1,80,000	9,80,000	In house sinter plant	-	9,80,000	-	-
2	Iron ore lump	200000	45,000	2,45,000	Barbil	325	-	2,45,000	-
3	Coke	300000	67,500	3,67,500	Local Market	200	-	-	3,67,500
4	Pulverised coal	85800	24,200	1,10,000	In house PCI plant	-	1,10,000	-	-
5	Quartzite	1000	225	1,225	Local market	200	-	-	1,225
	PCI PLANT								
1	Pulverized Coal	85800	24,200	1,10,000	Imported Haldia Port	260-270	-	-	90,000
					Barbil	325	-	20,000	-
	SMS (EAF ROUTE)								
1	DRI	4,50,000	-	4,50,000	Local Market	200	-	4,50,000	
2	Revert Scrap	18,000	-	18,000	In-house	-	18,000	-	-
3	Lime	41,500	-	41,500	Local market	200	-	-	41,500
	FERRO ALLOY PLANT (EAF ROUTE)								
1	Chrome ore	-	59,500	59,500	Orissa	475-490	-	22,540	36,960
2	Silicon Chrome Alloy	-	25,000	25,000	Local Market	200	-	-	25,000
3	Lime	-	43,500	43,500	Local market	200	-	-	43,500
	DUCTILE IRON PIPE PLANT								
1	Pig Iron	252000	252000	5,04,000	In-house Conveyor		5,04,000	-	-
2	Scrap	5000	5000	10,000	In-house		10,000	-	-

S No	Raw Material	Annual Requirement (in TPA)			Source	Distance (in km)	Transportation		
		Under Operation	Expansion / Proposed	Total			Internal	Rail	Road
	TOTAL						**16,22,000**	**21,59,540**	**7,19,685**
	Percentage (%)						**36%**	**48%**	**16%**

4.6.9 Existing water requirement is 1267 m^3 /day, water requirement is obtained from Asansol Durgapur Development Authority (ADDA). The water requirement for the proposed expansion project is estimated as 625 m^3/day, which will be made available by the supply of Asansol Durgapur Development Authority (ADDA). The permission for drawl of surface water of 3000 m^3 /day is obtained from ADDA vide Memo No. ADDA/DGP/ED/G-02/2021-22/CS-144 dated 02/07/2021. PP has further submitted that ADDA granted permission for enhancement of water to meet the daily water requirement for the expansion project after commissioning of their proposed 5 MGD Water Treatment Plant for which they propose to draw water from Feeder Canal of Damodar at Durgapur and is in the process for implementation of the Project. Copy of letter from ADDA to DVRRC dated 13/01/2014 is submitted by proponent.

4.6.10 Existing power requirement of 24 MW is obtained from Damodar Valley Corporation (DVC) supply. Power requirement for the existing & present proposal is estimated as 47.1 MW. Total power requirement will be met from DVC. The permission for power requirement is obtained from DVC vides letter no Coml./PS/JBIL/Durgapur/-4007 dated 25/03/2008.

4.6.11 Baseline Environmental Studies:

Period	**01/12/2018 to 28/02/2019**	**Additional Study (04/02/2022)**
AAQ parameters at 8 locations	$PM_{2.5}$ = 21 - 42 µg/m^3 PM_{10} = 55 - 89 µg/m^3 SO_2 = 5 - 21 µg/m^3 NO_2 = 12 - 42 µg/m^3 CO = 0.184 - 1.345 mg/m^3	-
AAQ modelling (Incremental GLC Level)	PM = 4.47 µg/m^3 (at a distance of 0.8 km in SSE) SO_2 = 0.49 µg/m^3 (at a distance of 1.2 km in SW) NOx = 1.23 µg/m^3 (at a distance of 1.2 km in SW)	-
Ground water quality at 8 locations	pH: 6.75 – 7.34, Total Hardness: 148 – 226 mg/l, Chlorides: 86 – 160 mg/l, Fluoride: 0.21 - 0.45 mg/l, Iron: 0.22 – 0.38 mg/l, TDS: 326 – 559 mg/l	-
Surface water quality	**At 10 locations (2 River water & 8 pond water samples)**	**2 samples** **Damodar River**

	River Water pH: 7.34 & 7.42, DO: 7.2 & 7.1 mg/l, BOD: 2 mg/l, COD: 8 & 10 mg/l, Fe: 0.14 & 0.12 mg/l, Coliform: 1310 & 1500 MPN/100ml, TDS: 168 & 187 mg/l, Total Hardness: 98 & 104 mg/l, Chloride: 36 & 39 mg/l **Pond Water** pH: 7.12 - 7.56, DO: 5.9 - 6.8 mg/l, BOD: 3 - 8 mg/l, COD: 16 - 32 mg/l, Fe: 0.17 - 0.27 mg/l, Coliform: 550 - 1110 MPN/100ml, TDS: 267 - 386 mg/l, Total Hardness: 136 - 168 mg/l, Chloride: 66 - 96 mg/l	**(Near Purkonda & Paharpur)** pH: 7.28 & 7.45, DO: 7.1 & 7.3 mg/l, BOD: 3 & 2 mg/l, COD: 9 & 7 mg/l, Coliform: 1400 & 1200 MPN/100ml, Free NH_3: <0.05 mg/l,
Noise levels	55.8 - 70.1 dBA for day time and 44.9 - 58.5 dBA for night time.	-
Traffic assessment study findings	• Traffic study has been conducted for 24 hours near NH-2 at EPIP Gate. • Existing PCU is 8262 PCU/day near NH-2 at EPIP Gate. • Additional traffic load during operation of the proposed expansion project will be 987 PCU/day. • Total Traffic Load During Operation of Existing and Proposed expansion will be 9419 PCU/Day near NH-2 at EPIP Gate. • As per IRC: 106-1990 code, Table no. 2, a Two Lane (two-way) divided road in urban area and plain terrain can accommodate vehicular traffic load of 36,000 PCU per day. Road near EPIP Main gate is a Two Lane (two-way) divided road and can well accommodate existing traffic load along with the additional load due to M/s JBIL.	
Flora and fauna	No endangered floral species is observed within study area. No Schedule I species of fauna is observed in the study area.	

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

S N	**Type**	**Quantity in Tons/Year**			**Utilization**
		Existing Units	**Proposed Units**	**Total**	
1	Slag from MBF	2,04,792	40,958	2,45,750	Will be sold to nearby Cement Plant as per present practice.
2	Dust from GCP and Bag Filters of Blast Furnace	20,417	4,083	24,500	100% to be reused in Sinter Plant as per present practice

SN	Type	Quantity in Tons/Year			Utilization
		Existing Units	Proposed Units	Total	
3	Slag from EAF	50,000	-	50,000	After metal recovery about 10% metal is recovered from the total slag and the balance 45,000 TPA (as stone chips/ road construction materials) is used for road construction & repairing/ land filling purposes. Considering 3 m width & depth 30 inch (0.75 m) of the road and density of the slag as 3.5 ton/cum, 7875 T slag may be consumed for 1.0 km stretch. Therefore, the entire quantity of slag generated in a year (45,000 TPA) can be utilized for the construction of around 5.7 km roads among which around 2.3 km are internal roads i.e. within the plant site. As per an estimate, it was found that around 200 km undeveloped (Kuchha) road is existing in the surrounding villages in the 10 km radius area. Hence, there is lot of potential of slag utilisation during construction of these roads.
4	Slag from Ferro Alloy Plant through EAF Route	-	85,000	85,000	The maximum slag generation shall be 85,000 TPA considering 100% production. After metal recovery about 10% metal is recovered from the total slag and the balance 76,500 TPA (as stone chips/ road construction materials) shall be used for road construction & repairing/ land filling purposes after TCLP test. Considering 3 m width & depth 30 inch (0.75 m) of the road and density of the slag as 2.5 ton/cum, 5625 T slag shall be consumed for 1.0 km stretch. Therefore, the entire quantity of slag generated in a year will be utilized for the construction of around 14 km roads. Besides, significant amount of slag will also be used for landfilling purposes both inside & outside the project site.

4.6.13 Public Consultation:

Details of advertisement	26/10/2019 in Bengali newspaper "Ei Somoy" and English newspaper "The Times of India"

given	
Date of public consultation	03/12/2019
Venue	Meeting hall of Gopalpur G.P. of Kanksa Block, Dist. - Paschim Bardhaman, West Bengal
Presiding Officer	Additional District Magistrate, Paschim Bardhaman
Major issues raised	• Development of football/cricket coaching centre • Generation of employment for the local people and youths • Installation at fencing at the playground • Steps to be taken to control environmental pollution especially operation of Air Pollution Control Device during operation of the unit • Solid waste management in the plant • Provision of scholarship to the economically poor students • Safety and welfare about the labour/employee of the existing plant • Arrangement of health camp, distribution of medicines etc. at nearby villages • Measures to be taken to control noise of the plant • Environmental pollution at Gopalpur area • Plantation programme in & around the industry • Source of water for the proposed expansion project

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

Concerns raised during Public Hearing	**Physical Activity and Action Plan**	**Particulars**	**YEAR OF IMPLEMENTATION**		
			1st Year	**2nd Year**	**3rd Year**
• Development of football/ cricket coaching center	Cricket/Football Coaching Centre at the playground of the nearby villages will be developed in consultation & co-ordination with Local Authorities	Physical Target (3 years)	Cricket/ Football Coaching Centre comprising of all necessary infrastructures like two rooms building, sports items etc. will be developed at the playground.		
		Budget: Rs. 33 Lakhs	Rs. 11 Lakhs	Rs. 11 Lakhs	Rs. 11 Lakhs
• Generation of employment for the local people and youths	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. Construction of a building along with the necessary infrastructures for this purpose like different machineries for industries.	Physical Target (3 years)	Construction of a 4 – room building with infrastructure development like installation of 10 sewing machines, 10 computer systems & 12 machines for making hand craft items along with necessary raw materials for training purpose.		
		Budget: Rs. 43 Lakhs	Rs. 15 Lakhs	Rs. 15 Lakhs	Rs. 13 Lakhs
	Fencing will be created at	Physical	Approx. 7000 sq. ft. (considering 5 ft		

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION		
			1st Year	2nd Year	3rd Year
• Installation of fencing at the playground	the playground to protect it from infiltrators.	Target (1 year)	height) barbed wired fencing will be created at the playground.		
		Budget: Rs. 3 Lakhs	Rs. 3 Lakhs	-	-
• Steps to be taken to control environmental pollution especially operation of Air Pollution Control Device during operation of the unit • Environmental pollution at Gopalpur area	• 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	Included in the EMP Cost.		
• Solid waste management in the plant	• Blast Furnace Slag will be sold to nearby Cement Plants. • Dust collected from ESP of Sinter Plant will be reused for sinter making. The hearth layer is also reused in sinter machine. • Ferro Chrome slag after chrome recovery through the Jigging process will be used in land filling / road construction purpose after TCLP test. • Slag from Magnesium converter will be used for	Physical Target	The physical Target for the entire activities shall be achieved in 3 years.		
		Budget	Included in the EMP Cost.		

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION		
			1st Year	2nd Year	3rd Year
	Land filling/Road Construction purpose. • The Runner Scrap will be remelted. Magnesium dust will be used in Sinter Plant. • Core sand in Casting Area as well as the same from the Annealing Furnace will be used in Land Filling purposes. • Zinc Dust will be sold to SPCB certified Paint manufacturer. • Solid waste of domestic / commercial origin generated in the plant will be disposed of suitably in consultation with the concerned Civic body.				
• Provision of scholarship to the economically poor students	• Scholarship will be given to the meritorious and needy students.	Physical Target	Scholarship will be given to the economically poor students by sponsoring them for education after conducting competitive examination		
		Budget	Shall be included in the CSR budget of the company		
• Safety and welfare about the labour/employee of the existing plant	• All the plant employees will be forced to use needed safety gears. All contractor personnel and temporary staff will also be advised to use safety equipment. All the safety system will be as per the standards OHSAS 18001: 1999 / OHSAS 18002 / 2002. • All workers & staffs will be covered under ESI &/ Mediclaim subject to ceiling limit	Physical Target	It will be done on regular basis.		
		Budget	Included in the EMP Cost.		
• Arrangement of health camp, distribution of medicines etc. at nearby villages	Periodic health check-up programme will be conducted by arranging camps through Primary Health Care Centers in nearby villages and medicines will be distributed to the economically needy people.	Physical Target	Health checkup camps shall be organized on half-yearly basis, in 5 nearby villages for general body, eyes, blood test and donation along with mass vaccination for polio, dengue, typhoid, malaria, etc. For this purpose, one doctor along with 2 – 3 assistants shall be deputed. This will come under CSR activities of the company.		
		Budget	Shall be included in the CSR budget of the company		
	The equipment shall comply with the Statutory limit of 85	Physical Target	The physical Target for the entire activities shall be achieved in 3 years.		

<table>
<tr><th rowspan="2">Concerns raised during Public Hearing</th><th rowspan="2">Physical Activity and Action Plan</th><th rowspan="2">Particulars</th><th colspan="3">YEAR OF IMPLEMENTATION</th></tr>
<tr><th>1st Year</th><th>2nd Year</th><th>3rd Year</th></tr>
<tr><td>• Measures to be taken to control noise of the plant</td><td>dB(A) (at 1 m. from the source). Noise Reduction Systems will be provided.</td><td>Budget</td><td colspan="3">Included in the EMP Cost.</td></tr>
<tr><td rowspan="4">• Plantation programme in & around the industry</td><td rowspan="4">• The company has earmarked 59.4 acres (33% of 180 acres) of land for Green Belt Development within its plant site considering the upcoming EC. 45 acres of greenbelt has already been developed all around the plant boundary area as well as within the project site. Green belt development programme for the rest 14.4 acres will also be developed simultaneously within the commissioning period of the proposed project.
• Development of Parks and Tree Plantation Programme (3500 nos) in the nearby villages will be done and distribution of saplings will be done to the nearby villagers and school students in consultsation with local civic bodies.</td><td rowspan="2">Physical Target</td><td colspan="3">The physical Target for the entire activities shall be achieved in 3 years.</td></tr>
<tr><td>Development of 1 no. park along with 1000 nos. tree plantation & distribution of saplings.</td><td>Development of 1 no. park along with 1000 nos. tree plantation & distribution of saplings.</td><td>1500 nos. Tree plantation & distribution of saplings.</td></tr>
<tr><td rowspan="2">Budget: Rs. 40 Lakhs</td><td colspan="3">Greenbelt development inside the plant included in the EMP Cost.</td></tr>
<tr><td>Rs.15 Lakhs</td><td>Rs.15 Lakhs</td><td>Rs.10 Lakhs</td></tr>
<tr><td colspan="6">Total Budget - Public Hearing related: Rs. 119 Lakhs</td></tr>
</table>

Need based Activities	Particulars	Year of Implementation		
		1st Year	2nd Year	3rd 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	100 nos. Dustbins	100 nos. Dustbins
	Budget: Rs. 3.0 Lakhs	Rs. 1 Lakhs	Rs. 1 Lakhs	Rs.1 Lakhs
Rain Water Harvesting ponds in nearby villages (4 nos. @ Rs. 5 Lakhs per pond).	Physical Target:	2 Rain Water Harvesting pond	2 Rain Water Harvesting pond	-
	Budget: Rs. 20 Lakhs	Rs. 10 Lakhs	Rs. 10 Lakhs	-
Construction of 11 nos. of ground water Recharging system for rainwater in nearby villages (@2.5 lakhs	Physical Target:	4 no. of ground water Recharging system	4 no. of ground water Recharging system	3 no. of ground water Recharging system

per system).	Budget: Rs. 27.5 Lakhs	Rs. 10 Lakhs	Rs. 10 Lakhs	Rs. 7.5 Lakhs
Drainage Development & maintenance - Side drains & Culvert	Physical Target:	Development & maintenance of drains & Culvert on drainage in adjacent villages	Development & maintenance of drains & Culvert on drainage in adjacent villages	Development & maintenance of drains & Culvert on drainage in adjacent villages
	Budget: Rs. 68.5 Lakhs	Rs. 24.5 Lakhs	Rs. 22 Lakhs	Rs. 22 Lakhs
Providing transportation to school students of nearby villages	Physical Target:	Provision of bus	Provision of bus	Provision of bus
	Budget: Rs. 24 Lakhs	Rs. 8 Lakhs	Rs. 8 Lakhs	Rs. 8 Lakhs
Total Budget - Need based activities: Rs. 143 Lakhs				
Overall Budget (Public Hearing related + Need based Activities): Rs. 262 Lakhs				

4.6.14 The capital cost of the project is Rs. 258.7 Crores and the capital cost for environmental protection measures is proposed as Rs. 41.62 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 393 Lakhs. The employment generation from the proposed project/ expansion is 700 persons. The detail of cost for environmental protection measures is as follows:

S. No.	Description of Item	Proposed Cost (Rs. in Crores)	
		Capital Cost	Recurring Cost
i.	Air Pollution Control/Noise	28.17	2.9
ii.	Water Pollution Control	2.5	0.28
iii.	Green Belt Development	0.83	-
iv.	Solid/Hazardous Waste Management	2	0.2
v.	Noise Reduction	1.2	0.12
vi.	Occupational Health Management	1.5	0.15
vii.	Risk Mitigation & Safety Plan	1.0	0.10
viii.	Environmental Management Department	1.8	0.18
ix.	Addressal of Public Consultation concerns	2.62	-
	TOTAL	**41.62**	**3.93**

4.6.15 M/s Jai Balaji Industries Limited (Unit-III) has already developed 59.4 acres (24.04 hectares) of land (33% of 180 acres (72.84 hectares)) for Green Belt Development within its existing and proposed plant site. 45 acres (18.21 hectares) of greenbelt has been developed all around the plant boundary area within the plant premises where around 27,320 number of trees (@1500 trees per hectares, as per earlier EC dated 30.08.2010) have been planted. Green belt development programme for the remaining 14.4 acres (5.83 hectares) has also been developed within the project site where around 14,575 number of trees (@2500 trees per hectares) is planted. Thus, finally total 41,895 number of trees come under greenbelt in the plant premises. As per the observations as given by the Honorable committee, plantation for the remaining 18,210 number of trees (for 45 acres (18.21 hectares) considering @2500 trees per hectares) has also been started.

4.6.16 PP mention that there is no violation under EIA, 2006/ court case/ show cause/direction is pending related to the proposed project.

4.6.17 Name of the EIA consultant: M/s. Envirotech East Pvt. Ltd. [S No. 176, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2124/SA 0145; valid upto 12/09/2022; Rev. 22, April 18, 2022].

Certified compliance report from Regional Office

4.6.18 The Status of review of action taken report (ATR) of earlier EC was obtained from MoEF&CC Regional Office, Kolkata vide letter dated 16/08/2021 in the name of M/s. Jai Balaji Industries Ltd on the basis of site monitored on 25/09/2020 and action taken report (ATR) submitted by PP to IRO, Kolkata on 29/07/2021. Subsequently, site was revisited on 12/11/2021 to verify the compliance. Review report dated 28/12/2021 obtained from IRO, Kolkata based on corrective ATR submitted by PP on 22/11/2021. The point wise examination of reply submitted by PP is given as below:

1	**Observation made during monitoring on 25/09/2020:** It is required to install on-line ambient air quality monitoring station in consultation with State Pollution Control Board, West Bengal at the earliest. **Action taken report submitted by the project proponent on 29/07/2021:** Purchase order for two (2) on-line ambient air quality monitoring stations has already been issued to vendors and they will be installed within October 2021. Copy of purchase order submitted to IRO, Kolkata. **Review of Acton Taken Report dated 16/08/2021: Partially Complied.** As per ATR submitted it is observed that purchase order for two on-line ambient air quality monitoring stations dated 27/02/2021 has been placed. **Action taken report submitted by the project proponent on 22/11/2021** Installation and Commissioning of the CAAQMS have already completed. Photo and Reports are submitted to IRO, Kolkata. **Review of Action Taken Report and observation made during monitoring on 12/11/2021: Being Complied** During inspection it was observed that CAAQMS has been installed. It is observed from the report of the two CAAQMS monitoring stations that parameters are within the stipulated standard.
2	**Observation made during monitoring on 25/09/2020:** It is required to monitor Chromites in influent and effluent surface, sub-surface and ground water on regular basis and reports to be submitted along with six monthly compliance reports. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to along with six monthly compliance reports. **Action taken report submitted by the project proponent on 29/07/2021:** Monitoring of Chromites is done on regular basis and the monitoring report for the same along with Surface water Analysis is submitted to IRO, Kolkata. **Review of Acton Taken Report dated 16/08/2021: Partially Complied.** As per ATR submitted by the PP, it has been observed that monitoring report of raw water suggests absence of chromite. However, monitoring reports of influent,

	effluent surface water and leachate study for the effluent generated have not been submitted by the PP. **Action taken report submitted by the project proponent on 22/11/2021** Monitoring reports of influent, effluent surface water, ground water and leachate study for the effluent generated are submitted to IRO, Kolkata. **Review of Acton Taken Report and observation made during monitoring on 12/11/2021: Being complied**. PAs have monitored chromites and submitted reports of the same in influent, effluent surface water, ground water and leachate samples.
3	**Observation made during monitoring on 25/09/2020:** It is required to submit the regular report regarding toxic metal content in the waste material and its composition, end use of solid hazardous waste to the Ministry's Regional Office at Bhubaneswar. WBPCB and CPCB, **Action taken report submitted by the project proponent on 29/07/2021:** MBF Slag will be sold to Cement Plant. The invoice for the same has been submitted to the IRO, Kolkata, WBPCB and CPCB. **Review of Action Taken Report dated 16/08/2021: Partially Complied.** As per ATR, the PP has not submitted monitoring reports pertaining to toxic metal content in the waste material and its composition, end use of solid / hazardous waste to the Ministry's Integrated Regional Office at Kolkata, WBPCB and CPCB. The invoice of slag sold to cement plants has been submitted to IRO, Kolkata. **Action taken report submitted by the project proponent on 22/11/2021** The monitoring report pertaining to toxic metal content in the waste material and its composition is submitted to IRO, Kolkata. There is no toxic metal present in the slag. **Review of Action Taken Report and observation made during monitoring on 12/11/2021: Being complied.** PAS have submitted the toxic metal content in the slag. As per email dated 14/12/2021, PAs have informed that BF slag is sold to nearby cement plant, dust collected from ESP of sinter making and the hearth layer is reused in the sinter machine, EAF slag is used for road construction and landfilling after metal recovery, dust collected in the dedusting system and magnesium dust is used in sinter plant, slag from Magnesium converter used for landfilling/road construction, core sand in casting area as well as same from Annealing furnace used in land filling purpose, zinc dust is sold to SPCB certified paint manufacturer.
4	**Observation made during monitoring on 25/09/2020:** It is required to develop the green belt all around the plant boundary area and 33% of total plant area as per the CPCB guidelines in consultation with the DFO. **Action taken report submitted by the project proponent on 29/07/2021:** JBIL, Unit-III has earmarked 59.4 acres (33% of 180 acres) of land for Green Belt Development within its plant site considering the upcoming EC. 45 acres (75.76%)

	of greenbelt has already been developed all around the plant boundary area as well as within the project site, green belt development program for the rest 14.4 acres (24.4%) will also be developed simultaneously within the commissioning period of the proposed project as per the CPCB guidelines in consultation with the DFO. Recent photographs of the existing green belt are submitted to IRO, Kolkata **Review of Action Taken Report dated 16/08/2021: Partially Complied.** As per ATR submitted by the PP. it has been observed that development of greenbelt in 33% of total plant area as per the CPCB guidelines in consultation with the DFO has not been achieved as yet. **Action taken report submitted by the project proponent on 22/11/2021** 3-tier avenue plantation using native species around 33% of total plant area has been developed and data in tabular form has been submitted to IRO, Kolkata. **Review of Action Taken Report and observation made during monitoring on 12/11/2021:** During monitoring it was observed that PAs have developed green belt within the project site. PAs need to fill gaps along the boundary wall with more plantation. As per report submitted, it is observed that PAs have developed green belt in 24.04 hectare. PAs need to have a survey conducted to assess the number of trees planted and area developed as green belt in the project site by DFO and the survey report submitted to the Regional Office.
5	**Observation made during monitoring on 25/09/2020:** It is required to upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on the company website and should update the same periodically. **Action taken report submitted by the project proponent on 29/07/2021:** The status of compliance of the stipulated environment clearance conditions, including results of monitored data on the company website is uploaded and the same has been updated periodically. Screenshot for the same is submitted to IRO, Kolkata. **Review of Action Taken Report dated 16/08/2021: Partially Complied.** As per ATR submitted by it is observed, the PP has only submitted the screenshot of the website. The link pertaining to status of compliance of the stipulated environment clearance conditions, including results of monitored data of the company website may be submitted. **Action taken report submitted by the project proponent on 22/11/2021** The link pertaining to status of compliance of the stipulated environment clearance conditions, including results of monitored data of the company website is http://www.jaibalajigroup.com/environment. **Review of Action Taken Report and observation made during monitoring on 12/11/2021: Being complied.** From the URL it is observed that PAs have uploaded the status of compliance of the

	stipulated environment clearance conditions in http://www.jaibalajigroup.com/environment/
6	**Observation made during monitoring on 25/09/2020:** It is required to provide the copies of advertisements made in newspapers regarding grant of EC to the project. **Action taken report submitted by the project proponent on 29/07/2021:** JBIL, Unit-III are trying to collect the copies of advertisements made in newspapers regarding grant of EC to the project. **Review of Action Taken Report dated 16/08/2021: Not Complied**. Copies of advertisements made in newspapers regarding grant of EC to the project have not been submitted. **Action taken report submitted by the project proponent on 22/11/2021** The copies of advertisements made in newspapers regarding grant of EC to the project is submitted to IRO, Kolkata. **Review of Action Taken Report and observation made during monitoring on 12/11/2021: Partially complied.** PAs have submitted a copy of the advertisement in Bengali Newspaper "Jatirkatha" dated 27/09/2012. PAS need to submit a copy of advertisement submitted in another local journal.

Conclusion of review report from IRO, Kolkata:
Action plan/ information need to submit by PP on following point:
1. PAs need to have a survey conducted to assess the number of trees planted and area developed as green belt in the project site by DFO and the survey report submitted to the Regional Office.
2. PAs need to submit a copy of advertisement regarding grant of EC submitted in local journal.

4.6.19 The project proponent had earlier applied for EC vide proposal no. IA/WB/IND/245584/2008 dated 01/01/2022 and the proposal was considered 52nd meeting of the Re-constituted EAC (Industry-I) held on 27th, 28th & 31st January, 2022 wherein the Committee returned the proposal in its present form due to technical deficiencies in the proposal.

4.6.20 The project proponent has again applied for EC vide proposal no. IA/WB/IND/262233/2022 dated 17/03/2022 and the proposal is considered in the 4th meeting of the new EAC held on 27-28th April, 2022. The observations and recommendations of the EAC are as follows:

4.6.21 During the meeting, project proponent submitted written submission on the following points:

i. Project proponent was submitted undertaking in the form of affidavit for following:
- PP shall complete installation of the Continuous Emission Monitoring System (CEMS) for the proposed stacks within three months.

- PP shall complete installation of 2 no. of Continuous Ambient Air Quality Monitoring Station (CAAQMS) within three months.
- PP shall complete the green belt development within the plant by August, 2022.
- PP submitted that M/s. Jai Balaji Industries Limited Unit -III, located at Village Baskopa, P.O. Rajbandh, Block Kanksa, is not comes within Durgapur Municipal Corporation Area.
- PP submitted that M/s. Jai Balaji Industries Limited Unit -III shall work for the development and upgrading the standard of living in the villages Baskopa, Bamunara & Sagarbangha.

4.6.22 It was apprised to the EAC that as per the information submitted by the proponent in the Form 2, EIA report and presentation made before the EAC during Jan 2022, the project site is reported to be not located within the boundary limits of Durgapur severely polluted area as identified by the CPCB. However, as per the WBPCB CEPI action plan for Durgapur area uploaded on the CPCB web portal (https://cpcb.nic.in/industrial_pollution/New_Action_Plans/CEPI_Action%20Plan_Durgapur.pdf), Jai Balaji Industries Limited, Unit III is reported to be within the Durgapur which is Severely Polluted Area having CEPI score of 65.56. As per the stand taken by the Ministry no EC can be granted for the developmental projects located within SPAs/CPAs. Further, such proposals are being returned by the Ministry till there is change in improvement in the CEPI score. In this regard, proponent informed during the meeting that their instant proposal is located outside the Durgapur municipal limits and the site is not falling within the severely polluted area. After deliberations, the EAC opined that Ministry shall seek for a factual status from WBPCB whether Jaibalaji Industries Limited Unit III is located within the Severely Polluted Area.

Observations of the Committee

4.6.23 The EAC noted the following:

i. The Committee noted that the EIA/EMP report for the expansion project is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.

ii. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.

iii. The Committee deliberated upon the certified compliance report of RO as well as action taken report submitted by PP with respect to the observations reported by RO and found it satisfactory.

iv. The committee noted that as per action plan for Durgapur polluted Industrial Area by West Bengal Pollution Control Board vide memo no. 528-337/WPB/OSE/2019 dated 17/06/2019, the project site of M/s. Jai Balaji Industries Limited Unit -III is located within the Severely Polluted Area (SPA). PP has submitted undertaking that the project cited above is not comes within Durgapur Municipal Corporation Area. EAC opined that Ministry shall seek for a factual status from WBPCB whether Jaibalaji Industries Limited Unit III is located within the SPA.

v. PP adopted three villages Baskopa, Bamunara & Sagarbangha for the development and upgrading the standard of living under CER activities.

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

Recommendations of the Committee

4.6.24 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements. Further, EAC recommended that Ministry shall seek for a factual status from WBPCB whether Jaibalaji Industries Limited Unit III is located within the SPA by enclosing the undertaking submitted by the PP prior to the grant of EC.

A. Specific Condition:

i. Three tier Green Belt shall be developed in 33% of total project area by August, 2022 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. This shall include development 20 m wide green belt development towards the Banskopa Village located adjacent to the project site. 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. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

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

iii. PP shall install and commission the Continuous Emission Monitoring System (CEMS) for the existing process stacks and two numbers of Continuous Ambient Air Quality Monitoring Station (CAAQMS) by end of July, 2022.

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

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

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

vii. Particulate matter emission from stacks shall be less than 30 mg/Nm^3.

viii. Blast Furnace shall be equipped with Top Recovery Turbine, dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.

ix. Electric Arc Furnace shall be closed type with 4^{th} hole extraction system.

x. DI plant shall have the following provisions:
   a. Wet scrubbers for Volatile Organic Compounds in annealing furnace.
   b. Bag filter for Zn coating and Mg converter area.
   c. Wet scrubbers in paint and bitumen coating area.
   d. Bag Filter in Cement lining area.

e. PTFE dipped bags shall be used in the plant.
f. PM emissions from BF in Zinc coating area shall be 5 mg/Nm^3.
g. ETP with recycling facility shall be included. All scrubber effluent shall be treated in ETP.

xi. Sinter Plant shall be equipped with Sinter cooler waste recovery system and suitable technology for control of dioxins and furans emissions from the plant.
xii. Three tier green belt along the perimeter boundary of the project, surrounding coal dumping and raw material yard, besides block plantation with in the project area.
xiii. PP shall improve the Housekeeping of the project premises with best standards.
xiv. 10 numbers of 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.
xv. Mechanical road sweeping shall be done in the surrounding villages also periodically.
xvi. Project proponent shall carry out Heat Stress analysis within process plants of the industry.

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) 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.
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 Baskopa, Bamunara & Sagarbangha 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; PM_{10}, SO_2, 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. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
xiii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
xiv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

4.7 Proposed set up of 3x9 MVA Ferro Alloy plant and 30 TPD Sinter Plant with jaw crusher by **M/s. Nilkanth Ferro Limited** located at Village Radhamadhavpur, Tehsil Gangajalghati, **District Bankura, West Bengal**. [Online Proposal No. IA/WB/IND/255995/2021, File No. J-11011/10/2011-IA.II(I)] – **Environment Clearance–regarding.**

4.7.1. M/s. Nilkanth Ferro Limited has made an application online vide proposal no. IA/WB/IND/255995/2021 dated 29/03/2022 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(a)

Metallurgical industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraisal at Central Level.

Details submitted by the project proponent

4.7.2. The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
08/06/2021	38th meeting of EAC held on 15-16th June 2021	Terms of Reference	01/07/2021	30/06/2025
05/07/2021	41st meeting of EAC held on 29-30th July, 2021	Amendment in ToR	11/08/2021	

4.7.3. The project of M/s. Nilkanth Ferro Limited located in Radha Madhavpur Village, Gangajalghati Tehsil, Bankura District, West Bengal is for setting up of a new 3X9 MVA Ferro Alloy Plant for production of 61,365 TPA Ferro Manganese, 45,256 TPA Silica Manganese and 21,049 TPA Ferro Silicon and 30 TPD sinter plant.

4.7.4. Environmental site settings

<table>
<tr><th>Sl.No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total Land</td><td>5.13 ha</td><td>Land use: Industrial</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>100% is in possession of PP</td><td></td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td><u>Project Site:</u> Radha Madhavpur Village</td><td>R&R not applicable since entire land is in possession of the PP</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site</td><td><table><tr><th>Coordinate No.</th><th>Latitude (N)</th><th>Longitude (E)</th></tr><tr><td>North most</td><td>23°28’23.48”</td><td>87°09’53”</td></tr><tr><td>East most</td><td>23°28’18.44”</td><td>87°10’03.62”</td></tr><tr><td>South Most</td><td>23°28’15.90”</td><td>87°09’57.19”</td></tr><tr><td>West most</td><td>23°28’18.40”</td><td>87°09’50.09”</td></tr></table></td><td>Measured from google earth kml</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>109 m amsl</td><td>-</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>Nil</td><td>-</td></tr>
<tr><td>vii.</td><td>Water body exists within the project site as well as study area</td><td>Project site: Nil
Study area: Nearest river is Damodar River at 7.7 km in SE and nearest nala is Barjora Nala at 3.7 km in SE.</td><td>-</td></tr>
</table>

Sl.No.	Particulars	Details	Remarks
		16 other nalas, reservoirs, streams, bil, canal, 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	**Nil** **List of Reserved and protected forests:** Gangajalghati PF; Beliator PF & RF; PF north of Gangajalghati; PF near Santalpara, Palerbandh and Kenduadihi	-

4.7.5. The existing project was accorded environmental clearance vide letter no. J-11011/10/2011-IA-II(I) dated 26/09/2012 for ferro alloy plant only. The validity of the EC lapsed on 26/09/2019 and was not extended. A CTE had been obtained from WBPCB vide memo no. 26-2N-42/2011(E) dated 08/01/2014 and extended on 15/03/2019 till 31/12/2023.

4.7.6. **Implementation status of the previous EC**: Physical progress had been undertaken which had an overall more than 50% significance in the progress of the project in terms of 100% land acquisition, 100% land use change, 100% boundary wall construction, 90% land development, 23% of the plot area has been covered by greenbelt, borewell has been constructed to meet 100% of water requirement after permission from SWID, 100% of the 3.5 km power line & poles have been drawn from DVC to the plant specifically for this power intensive project, 80% of the electrical parts & several components have been procured and stored, 25% of the stainless steel sections required for construction have been procured and Sheds/ watchtower in an area of approx 700 sq.m were made.

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

S.No	Name	Configuration	Production, TPA
1	**Submerged Arc Furnaces:**		
A	Ferro Manganese	9 MVA	61,365
B	Silico Manganese	9 MVA	45,256
C	Ferro Silicon	9 MVA	21,049
2	**Sinter Plant**	**30 TPD**	**10,316**

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

Sl. No.	Raw Material	Quantity required, MTPA	Source	Distance from site, kms	Mode of transportation
1.	Mn ore fines & concentrate	1,15,750	Nagpur, Maharashtra & Inhouse Jigging Plant and Sinter Plant	1,200	By Rail/ Road

Sl. No.	Raw Material	Quantity required, MTPA	Source	Distance from site, kms	Mode of transportation
2.	Coke Breeze and Fines	28,264	Dhanbad, Jharkhand	120	By Road
3.	Dolomite	19,330	Jalpaiguri, West Bengal	610	By Road
4.	Fe-Mn Slag	31,537	Inhouse	120	By road
5.	Iron Scrap	11,242	Durgapur, West Bengal	35	By Road
6.	Metallurgical Coke	12,124	Durgapur, West Bengal	36	By Road
7.	Quartz	21,891	Bankura, West Bengal	15	By Road
It may be noted that there will be imports of some raw materials at times via Haldia or Kolkata port. The route followed will be via Durgapur and the distance will be approximately 250 km by road.					

4.7.9. The water requirement for the project is estimated as 43.5 m^3/day, which will be obtained from Borewell and rainwater. The permission for drawl of groundwater / surface water is obtained from State Water Investigation Directorate (SWID) vide permit no. P010601402440/00000/05TSE dated 15/09/2009 & P01060140237/00000/TSE dated 09/01/2018.

4.7.10. The power requirement for the project is estimated as 27.3 MW, which will be obtained from the Damodar Valley Corporation.

4.7.11. Baseline Environmental Studies

Period	March to May 2021
AAQ parameters at 8 Locations	$PM_{2.5}$ = 28.0 to 46.0 µg/m^3 PM_{10} = 48.0 to 77.0 µg/m^3 SO_2 = 5.3 to 11.1 µg/m^3 NO_x = 16.2 to 25.2 µg/m^3 CO = 0.1 to 0.22 mg/m^3
Incremental GLC level	PM_{10}= 2.064 µg/m^3 (Level at 0.1 km in E direction) $PM_{2.5}$= 1.187 µg/m^3 (Level at 0.1 km in E direction) SO_2 = 0.157 µg/m^3 (Level at plant boundary in E Direction) NOx = 1.736 µg/m^3 (Level at plant boundary in ESE Direction)
Ground water quality at 8 locations	pH: 7.79 to 8.65, Total Hardness: 120 to 587 mg/l, Chlorides: 6.6 to 233 mg/l, Fluoride: 0.31 to 0.90 mg/l. Heavy metals are within the limits.
Surface water quality at 8 locations	pH: 7.4 to 8.87, DO: 5.2 to 6.3 mg/l, BOD: 1.03 to 12.9 mg/l and COD: 32 to 116 mg/l
Noise levels at 8 locations	51.38 to 70.37 dBA for the day time and 40.94 to 59.07 dBA for the Night time.
Traffic assessment	• Traffic study has been conducted at Maliara to Durlavpur Road Near Sri Chandrapur Village (1.4 km km, E from plant) and at NH

<table>
<tr><td>study findings</td><td>14 near Ghatakgram village (3.5 km, NW from plant) during monitoring period.
• Transportation of raw material, fuel & finished product will be done 100% by road.
• Existing PCU and Level of Service (LoS) is given below:

<table>
<tr><th>Road</th><th>V (Volume in PCU/ day)</th><th>C (Capacity in PCU/ day)</th><th>Existing V/C Ratio</th><th>LoS</th></tr>
<tr><td>Near Sri Chandrapur Village</td><td>5523</td><td>30000</td><td>0.184</td><td>A</td></tr>
<tr><td>Ghatakgram village</td><td>6208</td><td>30000</td><td>0.207</td><td>A</td></tr>
</table>

• PCU load after proposed project will be 5523 & 6208 at the two locations (Existing) + 72 & 66 PCU/hr respectively and level of service (LOS) will be as follows:

<table>
<tr><th>Road</th><th>V (Volume in PCU/ day</th><th>C (Capacity in PCU/ day)</th><th>Proposed V/C Ratio</th><th>LoS</th></tr>
<tr><td>Near Sri Chandrapur Village</td><td>5523+ 72= 5595</td><td>30000</td><td>0.186</td><td>A</td></tr>
<tr><td>Ghatakgram village</td><td>6208+ 66= 6274</td><td>30000</td><td>0.209</td><td>A</td></tr>
</table>

Note: Capacity as per IRC-64-1994 Guide line for capacity for roads.

Conclusion: The level of service will be A after including additional traffic due to proposed project.</td></tr>
<tr><td>Flora and fauna</td><td>No endangered floral species is observed within study area. No Schedule I species of fauna is observed in the study area.</td></tr>
</table>

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

Sl No	Type of waste	Source	Quantity Generated, TPA	Mode of treatment / disposal	Disposal
1	Slag (Ferro Manganese)	Submerged Arc Furnace	54,000	100% slag is reusable in silico manganese production in-house (58.4%) and outside (41.6%)	-
2	Slag (Silico Manganese)	Submerged Arc Furnace	45,256	100% can be sent to jigging plant for Manganese recovery	-
3	Slag (Ferro Silicon)	Submerged Arc Furnace	1,159	100% sold, reusable in cupola furnace	-

Sl No	Type of waste	Source	Quantity Generated, TPA	Mode of treatment / disposal	Disposal
4	Waste (Jigging)	Jigging plant	43,898	100% is useable in making paver blocks and land leveling	-
5	Sinter fines waste	Sinter plant	790	100% is reuseable in sinter making	-
6	Fines from material handling & bag filters	Bag filters	8,333	100% is reuseable in sinter making	-

4.7.13. Public Consultation

Details of advertisement given	07/12/2021 in Millenium Post, Aajkal & Sanmarg
Date of public consultation	07/01/2022
Venue	Gangajalghati Panchayat Samity Meeting Hall, Gangajalghati, Bankura, West Bengal
Presiding Officer	Additional District Magistrate, Bankura
Major issues raised	Most of the people welcomed the project and raised few points related to air, noise and water pollution control, greenbelt development, use of cleaner technology, maintenance of machines, employment to local, social development work, environmental awareness, following covid protocol etc.

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

No.	Physical activity and action plan		Year of Implementation (Budget in Rs. lakhs)			Total
	Name of the Activity	Physical Target	Year 1	Year 2	Year 3	
1	**Water**					
	Provision of drinking water	2 hand pumps will be installed for drinking water purpose in each of Radhamadhavpur, Subirara & Dangapara village.	2.50	2.50	2.50	**7.50**
	RO in school	RO system with cold water dispensing machine - 1 set each Nityanandapur High School, Subirara Primary School, Dangapara Primary School	0.70	0.70	0.70	**2.10**
2	**Skill Development**					
	For Women	Provision of sewing machines (10 nos.) to women for tailoring classes through Local Panchayat	0.50	0.50	0.00	**1.00**
	For Farmers	Provision of sprayer pump (20 nos.) for local farmers through Local Panchayat	0.25	0.00	0.25	**0.50**
3	**Education**					
	Monetory support to Schools &	Markers, stationaries, books, etc. will be provided to under privileged students in the school nearby the Plant	0.25	0.25	0.25	**0.75**

No.	Physical activity and action plan		Year of Implementation (Budget in Rs. lakhs)			Total
	Name of the Activity	Physical Target	Year 1	Year 2	Year 3	
	underpriviledged students	(Radhamadhavpur, Chausal & Khayerbani village)				
	Supporting meritorius students	Laptops to top three rankers of WB Board of Secondary Education toppers of Class 10 of WB Govt.'s Chousal High School	1.50	1.50	1.50	**4.50**
4	**Tree Plantation**	Transportation of free saplings from Govt. of WB nursery to local villagers & any assistance (1000 plants for each village Radhamadhavpur, Chausal, Sadanandpur, Subirara & Shrichandrapur for plantation on their vacant land and along the road side).	0.12	0.12	0.12	**0.36**
5	**Sports activities**	Supply of sports material (footbal, bat, bolls, wickets, etc.)	0.06	0.06	0.06	**0.18**
6	**Cultural activities**	Subscription in Cultural Activities	0.25	0.25	0.25	**0.75**
	Enabling Handicapped person	Handicapped students will be given special tri-cycle cycle (2 nos. per year) through Local Panchayat	0.30	0.30	0.30	**0.90**
	Temple shed construction	Temple related development activities such as shed construction, paving around it, solar lighting in Bhadrakali temple at Bhadra Mod	1.50	1.50	1.50	**4.50**
7	**Expenditure for Public Health**	1 nos. Ambulance to Panchanyat, Barsal	0.00	0.00	7.00	**7.00**
	Total		**7.93**	**7.68**	**14.43**	**30.04**

4.7.14. The capital cost of proposed project will be Rs. 51.079 Crores. The capital cost for environmental protection measures is proposed as Rs. 6.42 Crores. The annual recurring cost towards the environmental protection measures in proposed project will be Rs. 5.98 Crores. The employment generation from the proposed project is 350. The details of the cost for environmental protection measures is as follows:

Description	**Proposed In lakhs**	
	Capital Cost	**Recurring cost**
Air pollution control	555.00	522.56
Water pollution control	30.70	7.11
Noise pollution control	10.00	1.01
Environment Monitoring	-	1.45
Occupational health	16.10	24.24
Green belt	0.51	4.75
Others- studies, advice, etc	0.50	2.0
Interest on Capital Cost	-	21.53
Overheads (3% of dep., energy, R&M)	-	13.95
To address issues raised in public hearing dated 07.01.2020	30.04	-
Total	**642.85**	**598.60**

4.7.15. Some greenbelt is existing in 1.17 ha (23%) of the project area. Proposed greenbelt will be in another 0.52 ha (10%) area. Total green belt will be developed in 1.69 ha which is about 33% of the project area. A 5-10 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. Total no. of 4180 saplings will be planted and nurtured in 1.69 ha in five years.

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

4.7.17. Name of the EIA consultant: Min Mec Consultancy Pvt. Ltd. The said consultant is not accredited by the QCI/NABET. However, the consultant is preparing and presenting EIA/EMP based on the High Court of Delhi orders in LPA 110/2014 and CM No.2175/2014 (stay) and W.P.(C) 3665/2016 and C.M. No. 15699/2016(stay).

4.7.18. During the meeting, project proponent submitted written submission on the following points:

i. Project proponent has provided revised budget to address the issues raised during public hearing. Same has been updated at para no 4.7.13 above.

Observations of the Committee

4.7.19. The Committee noted the following:

i. The Committee noted that the EIA/EMP report for the proposed project is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
ii. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
iii. The EAC also deliberated on the written submissions submitted by the proponent and found it satisfactory.
iv. Chausal village is located at 0.6 km from project site.

Recommendations of the Committee

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

A. Specific Condition:

i. Three tier Green Belt shall be developed in a time frame of one year covering 33% of total 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. This shall include 20m wide green belt development towards Chausal village located at 0.6km from the project site. 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. Compliance status in this regard, shall be submitted to concern Regional Office of the MoEF&CC.

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

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

iv. 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.

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

vi. Particulate matter emission from stacks shall be less than 30 mg/Nm^3.

vii. Sewage treatment plant shall be provided for domestic treatment plant.

viii. PP shall be carried out periodically occupational health survey as per the applicable norms.

ix. 4^{th} hole extraction system shall be provided in the Sub Merged Arc Furnaces.

x. Sinter Plant shall be equipped with Sinter cooler waste recovery system and suitable technology for control of dioxins and furans emissions from the plant.

xi. Project proponent shall provide safe drinking water to the villagers as part of CER activity.

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 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.

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; PM_{10}, SO_2, 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. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

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

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

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

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

4.8 Proposed Expansion and Upgradation of Pig Iron Manufacturing Plant to 0.4 MTPA Capacity and Inclusion of Steel Melting Shop by **M/s. Neo Metaliks Limited** located at Village Gopalpur, Tehsil Durgapur, **District Paschim Bardhman, West Bengal** [Online Proposal No. IA/WB/IND/260820/2007, File No. J-11011/779/2007-IA.II (I)] – **Environment Clearance – regarding.**

4.8.1. M/s. Neo Metaliks Limited has made an online application vide proposal no. IA/WB/IND/260820/2007 Dated 07/04/2022 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 appraisal at Central Level.

4.8.2. The project proponent initially applied for EC vide proposal no. IA/WB/IND/152904/2007 dated 22/10/2020 and the proposal was considered in the 24th meeting of the Re-constituted EAC (Industry-I) held on 27–29th October, 2020 wherein the Committee opined that plant proposed is in highly polluted area, plant layout is very congested and adequate land is not available for Green belt plantation. In view of this and inadequacies cited above, the Committee recommended to return the proposal in present form.

4.8.3. The project proponent submitted the revised proposal reducing the proposed capacity from 0.6 MTPA to 0.56 MTPA vide proposal no. IA/WB/IND/208095/2007 dated 06/04/2021 and the proposal was considered in the 34th meeting of the Re-constituted EAC (Industry-I) held on 15-16th April, 2021 wherein the Committee recommended the following:

i. The proposal is recommended to be rejected.
ii. Show Cause Notice be issued to the EIA consultant - M/s. Green C India Consulting Private Limited as the consultant is repeatedly submitted the EIA report on 22/10/2020 and 06/04/2021 with several deficiencies as enumerated above and no tangible efforts are made to improve upon the same.

Chronology of EC events:

Sl. No	Particulars	Date	Remarks
1	Grant of ToR	27.05.2019	ToR was granted for expansion of 0.188 MTPA of pig iron unit to 0.6 MTPA of steel by upgrading the MBF to 450 m^3. Project components proposed include the following: • Expansion of MBF (215 m^3) with a production capacity of 1,88,000 TPA to 4,72,500 TPA with 450 m^3 MBF. • Expansion of Sinter Plant from 3,00,000 TPA to 6,61,500 TPA • New 35 MW power plant and capacity expansion of existing BG based power plant from 4.5 MW to 5 MW. • A new oxygen plant of 250 TPD • Sponge iron plant of 2,27,100 TPA • Zero Power Furnace of 4,62,000 TPA • Induction furnace of 1,73,575 TPA • Ladle furnace of 1x30 t and 1x50 t. • Two casters of 6,22,863 TPA (2 strand 6/11 m and 4 strand 6/11 m) • Rolling mills (2 Nos.): Rebar mill of 2,00,000 TPA and wire rod mill of 3,00,000 TPA • A vacuum degassing furnace of 50t

Sl. No	Particulars	Date	Remarks
2	Baseline Monitoring	March – May 2019	Three-month baseline monitoring on various environmental attributes has been undertaken by NABL accredited lab.
3	Public Hearing	29.11.2019	Points raised during the public hearing has been addressed in this report.
4	MoEF&CC EAC Meeting (1st Meeting)	27.10.2020	Proposal was returned to the project proponent to address additional points sought by the committee. Inadequacy of land for the proposed expansion and green belt plantation was pointed out as a decisive observation.
5	Revised EIA report (by earlier EIA consultant)	06.04.2021	The plant layout was revised to reduce the conglomeration of manufacturing facilities. The proposed capacity reduced from 0.6 MTPA to 0.56 MTPA. Revised components include: • Upgradation of the existing 215m3 MBF with a production capacity of 1,88,000 TPA to 4,41,000 TPA with 350 m3 MBF. • A new 36 m2 Sinter plant in addition with existing 33 m2 (capacity increase from 3,00,000 TPA to 6,61,500 TPA of sinter) • Existing 4.5 MW CPP to 5 MW CPP and new (10+25) MW CPP • Sponge iron Plant of 2,10,859 TPA, • Zero Power Furnace of 1 x 50 t with a production of 4,15,800 TPA • Induction Furnace of 2 x 30 t with a production of 1,73,575 TPA • Ladle furnace of 1 x 30 t and 1 x 50 t • Two casters (2-strand 6/11 m and 4 strand 6/11) of 6,22,863 TPA • Rebar mill of 2,00,000 TPA and wire rod mill of 3,00,000 TPA.
6	MoEF&CC EAC Meeting (2nd Meeting)	15.04.2021	Proposal was rejected by the committee since the EIA report has not accounted the suggestions put forward by the committee earlier on 27.10.2010.
7	Request for reconsidering the proposal – MoEF&CC	07.05.2021	-
8	Response from MoEF&CC	27.05.2021	Asked project proponent to submit the revised proposal.

4.8.4. The project proponent has again applied for EC with a revised proposal vide proposal no. IA/WB/IND/260820/2007 Dated 07/04/2022 and the proposal is considered in the 4th meeting of the new EAC held on 27-28th April, 2022. In the instant proposal, the proponent has submitted that during the earlier appraisal, the Honorable EAC (Industry – 1) suggested the proponent to reduce the foot print, and accordingly, Neo Metaliks Limited (NML) has revised the capacity to 0.4 MTPA of TMT bars and wire rods. Accordingly, a revised EIA study focusing on the revisions made to decongest the facility area, upgradation of units to

reduce pollution load, changes in the impacts, mitigation measures and EMP has been carried out.

The revised proposal in brief consists of the following elements.

- Replacing the existing 215m^3 Blast Furnace with a new Blast Furnace of 350 m^3 capacity.
- A new 36 m^2 Sinter Plant in addition to existing 33 m2 Sinter Plant.
- A new Steel Melting Shop (SMS) having One (1) No. 50 t Zero Power Furnace (ZPF) with matching Ladle Furnace (50 t), 50 t VD Unit and a 4-strand 6/11m radius Caster.
- Reheating furnace (1x30 t) and Induction heater (1x50 t)
- A new 4,00,000 t capacity Rebar-cum-Wire Rod Mill.
- A new 10 MW Captive Power Plant (CPP) based on BFG to utilize Surplus BF Gas keeping the existing 4.5 MW CPP as stand-by and
- A new 250 TPD Oxygen Plant.

Following units are dropped from the proposal (as per the project components indicated in the earlier EIA) in order to decongest and reduce the pollution load.

- Sponge Iron Plant (350 + 350 TPA) and
- Coal based Captive Power Plant of 30 MW
- Induction furnace (1 x 30 T)
- Ladle furnace (1 x 30 T)
- One Caster (4 strand - 6/11 + 2 strand - 6/11)
- One strand of rolling mill

Therefore, the final product list post expansion from the facility is given below.

- TMT/wire rods of 400000 TPA (New product - saleable product)
- Billets of 407500 TPA (New product - Captive Consumption/Saleable)
- Pig iron of 422000 TPA (Capacity addition - Captive Consumption/Saleable)
- Sinter of 569700 TPA (Captive Consumption/Saleable)
- Captive Power Plant of 10 MW (BFG based, existing 4.5 MW will used as standby)

4.8.5. In view of above, the details of the revised proposal as submitted by PP are as follows:

Details submitted by the project proponent

4.8.6. The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
07/03/2019	5th meeting of Re-constituted EAC held on 27-28th March 2019	Terms of Reference	27/05/2019	26/05/2023

4.8.7. The project of M/s. Neo Metaliks Limited located in Gopalpur Village, Durgapur Tehsil, Paschim Bardhman District, West Bengal is for Expansion and Upgradation of Pig Iron Manufacturing Plant to a 0.4 MTPA Capacity and Inclusion of Steel Melting Shop at Gopalpur, District Paschim Bardhman, West Bengal.

4.8.8. Environmental site settings

Sl.No.	Particulars	Details
i.	Total Land	90.04 acre (36.43 Ha)
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Neo Metaliks Limited has a total land of 90.04 ac. The proposed project expansion will be carried out within the boundary limits of existing Neo Metaliks. No additional land will be acquired for the proposed project.
iii.	Existence of habitation & involvement of R&R, if any.	R&R Not Applicable
iv.	Latitude and Longitude of the project site	23°29'30.78" N 87°22'41.06" E 23°29'34.30" N 87°22'33.69" E 23°30'04.01" N 87°22'45.43" E 23°29'51.79" N 87°22'45.43" E
v.	Elevation of the project site	72 m above mean sea level
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	Project site A pond (7157 m^2) is present within the project site, which will be used as a rainwater reservoir. Study area Damodar river is present at 6 km South
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	No National Park/Wildlife Sanctuary and Bio-sphere present within 10 km radius • Rupkanj PF at 1.2 km North • Durgapur PF at 6 km North West • Bilaspur PF at 4 km North East
ix.	Critically/Severely	

4.8.9. The existing project was accorded environmental clearance vide Lr.No. J-11011/779/2007- IA.II (I) dated 04/11/2008. Consent to Operate for the existing unit was accorded by West Bengal State Pollution Control Board vide Lr. No. C0100888 dated 20/04/2017. The validity of CTO is up to 30/04/2022.

4.8.10. Implementation status of the previous EC:

Sl. No.	Facilities	Units	As per EC dated	Implementation Status as on	Production as per CTO
1	Sinter: 3,00,000 MTPA	1	04/11/2008	Implemented	3,00,000 MTPA
2	Bars and Roads in EAF: 3,69,000 TPA	1	04/11/2008	Not implemented	-
3	Cast Billets: 2,33,000 MTPA	1	04/11/2008	Not implemented	-
4	Billets: 3,84,000 MTPA	1	04/11/2008	Not implemented	-

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

Sl. No	Plant Equipment/ Facility	Existing facilities as per EC dated 04.11.2008 and earlier EC								Proposed units		Final capacity		Remarks
		Total (A+B)		Implemented (A)		Unimplemented (B)*		As per CTO						
		Conf.	Capacity (TPA)	Conf.	Capacity (TPA)	Conf.	Capacity (TPA)	Conf.	Capacity (TPA)	Conf.	Capacity (TPA)	Conf.	Capacity (TPA)city	
1	Sinter	33 m^2	300000	33 m^2	300000	-	-	33 m^2	300000	36 m^2	269700	69 m^2	569700	Retrofitting of existing 33 m^2 SP ESP to meet PM<30 mg/Nm^3
2	Mini Blast Furnace	215 m^3	188000	215 m^3	188000	-	-	215 m^3	188000	350 m^3	422000	350 m^3	422000	-
3	PCI	120 kg	-	120 kg	-	-	-	120 kg	-	170 kg	-	170 kg	-	-
4	Captive Power Plant	-	4.5 MW	-	4.5 MW	-	-	-	4.5 MW	-	10 MW	-	10 MW	BFG based CPP. Existing 4.5 MW will be kept as standby power generation unit.
5	Zero Power Furnace	-	-	-	-	-	-	-	-	50 t	416000	50 t	416000	Aids to achieve energy savings and requires no power input
6	LRF	-	-	-	-	-	-	-	-	50 t	-	50 t	-	
7	Caster	-	-	-	-	-	-	-	-	4 strand - 6/11	-	4 strand - 6/11	-	-
8	Rolling mill	-	-	-	-	-	-	-	-	TMT/WR mill - 400000 TPA	-	TMT/WR mill - 400000 TPA	-	-
9	VDF	-	-	-	-	-	-	-	-	50 t	-	50 t	-	-
10	Oxygen plant	-	-	-	-	-	-	-	-	250 TPD	87500 TPA	250 TPD	87500 TPA	-

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

S. No.	Raw Material	Quantity required per annum (TPA)			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Post Expansion	Total			
1	Ore fines	246000	455760	455760	Odisha/ Jharkhand	300	Road
2	Coke	81890	216380	216380	Durgapur	50	Road/rail
3	Fluxes (Limestone, Dolomite & Burnt lime	61518	113945	113945	Durgapur, Birpara, (Bhutan) & Domestic-Jaisalmer imported-UAE	300	Road/rail
4	Iron Ore (lumps/pellet)	94000	211000	211000	Odisha/Jharkhand	300	Road
5	Coal	35160	78915	78915	Coal India Limited ECL	500	Road/rail

4.8.13. Existing water requirement is 2090 m^3/day, water permission for the same has been obtained from Asansol Durgapur Development Authority (ADDA) vide letter no ED/CN-79/04-05/1428 dated 13/07/2005. The water requirement for the proposed project is estimated as 5295 m^3 /day. The entire water requirement of 5295 m^3 /day of fresh water requirement will be obtained from ADDA and in principal approval has been obtained Letter No. ED/G01/2020- 21/208 dated 29th September 2020 for sanction of 6000 KLD.

4.8.14. Existing power requirement of 5.9 MW is obtained from Damodar Valley Corporation and captive BF gas based CPP. The power requirement for the proposed project is estimated as 44.38 MW, out of which 10 MW will be met from the blast furnace gas fired Captive Power Plant. Remaining 34.38 MW balance is drawn from the Damodar Valley Corporation grid.

4.8.15. Baseline Environmental Studies

Period	27/10/2021 to 30/11/2021	Additional study (if any)
AAQ parameters at 9 locations (min and max)	$PM_{2.5}$ = 28.7 to 65.5 μg/m^3 PM_{10} = 62.6 to 127.5 μg/m^3 SO_2 = 7.6 to 16.6 μg/m^3 NOx = 47.2 to 19.6 μg/m^3	Earlier three-month baseline data collection from March – May 2019 as per ToR 2019 and Validation study conducted in January 2021 as per the recommendations of EAC on 27.10.2020.
Incremental GLC Level	PM_{10} = 04 μg/m^3 (Level at 0.8 km in NE Direction) SO_2 = 06 μg/m^3 (Level at 0.8 km in NE Direction) NOx = 12.2 μg/m^3 (Level at 0.8.km in NE Direction)	

<table>
<tr><th>Period</th><th>27/10/2021 to 30/11/2021</th><th>Additional study (if any)</th></tr>
<tr><td>Ground water quality at 7 locations</td><td>pH: 6.62 to 7.45, Total Hardness: 110 to 329 mg/l, Chlorides: 90.3 to 110 mg/l, Fluoride: 0.3 to 0.96 mg/l. Heavy metals: Not present</td><td></td></tr>
<tr><td>Surface water quality at 3 locations</td><td>pH: 6.62 to 7.71; DO: <4 to 8 mg/l and BOD: 5.2 to 5.4 mg/l. COD: <2 mg/l</td><td></td></tr>
<tr><td>Noise levels Leq at 9 locations (Day and Night)</td><td>47.85 to 59.77 for the day time and 38.75 to 50.22 for the Night time.</td><td></td></tr>
<tr><td>Traffic assessment study findings</td><td>Traffic study has been conducted at NH/SH road which is approximately 0.3 km and 2 km (distance) from the plant site respectively.

Transportation of raw material, fuel & finished product will be done 100% initially by road (to and fro to plant) to a point from which rail/road transport will be used. Existing PCU is 141 PCU/hr on NH2 and 247 PCU/hr on SH9 and existing level of service (LOS) is 0.09 and 0.2 respectively for NH2 and SH9. Each road has LOS of Class A (Free flowing traffic).

<table>
<tr><th>Road</th><th>V(Volume in PCU/hr</th><th>C (Capacity in PCU/hr.)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>NH-2</td><td>141</td><td>1800</td><td>0.08</td><td>A</td></tr>
<tr><td>SH-9</td><td>247</td><td>1500</td><td>0.16</td><td>A</td></tr>
</table>

PCU load after proposed project will be 141 (Existing) + 31 (Additional) PCU/hr and level of service (LOS) will be A.
<table>
<tr><th>Road</th><th>V(Volume in PCU/hr</th><th>C (Capacity in PCU/hr.)</th><th>Proposed V/C Ratio</th><th>LOS</th></tr>
<tr><td>NH-2</td><td>172</td><td>1800</td><td>0.09</td><td>A</td></tr>
<tr><td>SH-9</td><td>269</td><td>1500</td><td>0.18</td><td>A</td></tr>
</table>

* Note: Capacity as per IRC 106:1990 Guide line for capacity for roads NH2 is 1800 PCU/hr and SH9 is 1500 PCU/hr.</td><td></td></tr>
</table>

Period	27/10/2021 to 30/11/2021	Additional study (if any)
	Conclusion: The level of service will be Class A (Free flowing) after including additional traffic due to proposed project	
Flora and fauna	No Schedule I fauna and endangered flora found in the 10 km radius.	

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

S. No.	Type of Waste	Source	Quantity generated	Mode of Treatment	Disposal
1	Solid Waste	Non-hazardous iron fines & dust	208 TPD	Reuse within plant	Charged back to sinter plant (use within plant)
2	Solid waste	Slag	569.8 TPD	Sold to Cement Manufacturing units	Sold to Cement Manufacturing units through authorized vendors.
3	Solid waste	Other industrial wastes	2 TPD	Sold to authorized vendors	Sold to authorized vendors
4	Hazardous waste	Waste hydraulic oils, lubricants and greases	295 LPD	Storage at site and disposal through authorized recyclers.	Collected in drums and will be sold to authorized recyclers.
5	Battery waste	Used batteries	40 Nos/yr	Through Replaced by suppliers	Replaced by suppliers
6	Biomedical waste	Medical waste	25 kg/yr	Collection at site and Disposed off through BMWTF	Disposed off through BMWTF
7	Hazardous waste	Spent ion exchange resin	2.3 TPA	Collection at site and Disposed off through CHWTSDF	Disposed off through CHWTSDF
8	Hazardous waste	Sludge	96 kg/day	Collection at site and Disposed off through CHWTSDF	Disposed off through CHWTSDF

4.8.17. Public Consultation

Details of advertisement given	Public consultation notice made through advertisement in the Newspaper Ei Samay and The Times of India on 26/10/2019.
Date of public consultation	29/11/2019
Venue	Meeting Hall of Gopalpur G.P. of Kanksa Block, District-Paschim Bardhman, West Bengal

Presiding Officer	Additional District Magistrate
Major issues raised	i) Potable drinking water facilities ii) CSR/CER activities iii) Local employment opportunities iv) Green belt development and pollution control plan

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

Sector	Activity and Name of the village	Quantity	Committed Year wise breakup							
			1st year (2022-23)		2nd year (2023-24)		3rd year (2024-25)		Total	
			Nos.	Budget in Rs. Lakhs.	Nos.	Budget in Rs. Lakhs.	Nos.	Budget in Rs. Lakhs.	Nos.	Budget in Rs. Lakhs.
1. Educational support & Skill Development	Training programs on skill development at Hattala, Bascopa, Rajbandh, Bandra, Gopalpur	10	2	2	4	4	4	4	10	10
	Addition of new class rooms and modification of school at Hattala	1	0	0	0	0	1	15	1	15
	Scholarship to needy students	10-20 students per year	10	4	20	8	20	8	50	20
	Additional Infrastructure development in Govt. Schools	5	1	36	2	44.25	1	44.25	4	124.5
	Subtotal-1								**65**	**169.5**
2. Health & Sanitation programs	Covid Support, Health Checkups and Welfare of Disabled	5	1	7	2	10	2	10	5	27
	Subtotal-2								**5**	**27**
3. Environmental Awareness Programs	Plantation programs in villages, schools, hospitals, roads and other government buildings at Hattala, Bascopa, Rajbandh, Bandra, Gopalpur, Gosaidanga, Chataldanga, Monerkonda, Rupganj, Kuldia	10 Villages (@500 Nos / Village)	1000	4	1200	6	2800	10	5000	20
	Rainwater harvesting structures in Villages (Hattala / Bascopa, Rajbandh / Bandra, Gopalpur / Gosaidanga, Chataldanga / Monerkonda, Rupganj / Kuldia)		5	0.5	10	1	10	1	25	2.5
	Provision of covered	3	1	28.5	1	32	1	29.5	3.00	90

Sector	Activity and Name of the village	Quantity	Committed Year wise breakup							
			1st year (2022-23)		2nd year (2023-24)		3rd year (2024-25)		Total	
			Nos.	Budget in Rs. Lakhs.	Nos.	Budget in Rs. Lakhs.	Nos.	Budget in Rs. Lakhs.	Nos.	Budget in Rs. Lakhs.
	sewers in villages	Villages								
	Subtotal-3								**5033**	**112.5**
4. Infrastructure Development	Repairs/improvements to existing roads	10 Km	2	34	3.5	68	2.5	58.5	8	160.5
	Drinking Water at Gopalpur (Hattala) (3.5 KLD)	1	1	5.5					1	5.5
	Installation of Drinking water at Panagarh Gurudwar (2 KLD)	5	2	6	2	6	1	3	5	15
	Construction of Atchala at local temples	7					7	10	7	10
	Subtotal-4								**21**	**191**
Grand Total										**500**

4.8.18. Existing capital cost of project was Rs. 13300 Lakhs. The capital cost of the proposed project is Rs. 68100 Lakhs and the capital cost for environmental Management Plan is proposed as Rs. 9041 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 627.35 Lakhs. The employment generation from the proposed project / expansion is 500 direct jobs. The details of cost for environmental protection measures is as follows:

S. No.	Description of Item	Proposed (Rs. in lakhs)	
		Capital Cost	Recurring Cost
i.	Air Pollution Control/ Noise Management	5242	376.35
ii.	Water Pollution Control	1122	67
iii.	Environmental Monitoring and Management	17.51	-
iv.	Green Belt Development	143.5	82
v.	Addressal of Public Consultation concerns	45+CSR/CER Budget	-
vi	Noise Environment	232	99
vii	Energy saving measures	1160	50
viii	Health and safety	755	32
ix	Waste management	30	3
	Total	**9041**	**627.35**
x	Addressal to public consultation concerns	**500**	**--**

4.8.19. Existing green belt has been developed in 10.41 ha area which is about 28.56% of the total project area of 36.43 ha with total sapling 18785 Trees. Proposed greenbelt will be developed in 2.68 ha which is about 7.4% of the total project area. Thus, total of 13.09 ha area (36% of total project area) will be developed as greenbelt. A 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 additional number of 14600 saplings will be planted and nurtured in 13.09 hectares in next 6 years.

Certified compliance report from Regional Office

4.8.20. The Status of review of action taken report (ATR) of earlier EC was obtained from MoEF&CC Regional Office, Kolkata vide letter dated 20/01/2020 in the name of M/s. Jai Balaji Industries Ltd on the basis of site monitored on 14/12/2019 and action taken report (ATR) submitted by PP to IRO, Kolkata on 08/03/2020 and 15/12/2020. Review report of the ATR issued on 17/12/2020 from IRO, Kolkata. Site visit carried out again on 12/11/2021. Based on observation made during site visit on 12/11/2021 and ATR submitted on 13/12/2021 & 21/02/2022. IRO, Kolkata evaluated the same and issued a report on 18/04/2022. The point wise ATR on observation made by IRO on 18/04/2022 is given as below:

Sl. No	Corrective action points indicated by RO, MoEF&CC	As per IRO report dated 18/04/2022
1	Stack emissions shall be corrected to 6% O_2 In GSR 593 (E) dated 28/06/2018 it is stated that "all values for SO_2, NOx and particulate matter shall be corrected to 6% oxygen on dry basis". It is observed from the reports submitted for CPP, concentration of SO_2 and NOx has not been corrected to 6% O_2. PM concentration has been reported at 12% CO_2. PA need to submit monitoring data of SO_2, NOx and PM for CPP corrected at 6% O_2.	As per the IRO report, O_2 correction at 6% for CPP (SO_2, NO_x and particulate matter) was done on dry basis.
2	Fugitive emissions from work zone Fugitive emission was observed near the RMH connected to the Mini Blast Furnace. Further, fugitive emissions were also observed in the crusher house building (near tail ESP). It was also observed that coke fines were not kept in shed. The same should be taken care of & Huge emission was observed in the work zone of the MBF, indicating inefficiency of the existing fume extraction system. PAs need to take immediate action to control the emissions from the MBF.	Corrective measures like reduction of bands in duct, repairing of suction pipe have been done. Conveyor belt was closed. Sprinkler and canon fog was installed. Coke fines are covered with tarpaulin and dry fog MBF ground hopper was working.

Sl. No	Corrective action points indicated by RO, MoEF&CC	As per IRO report dated 18/04/2022
3	Green Belt PAs need to develop greenbelt in the remaining 5.28 acres at the earliest.	Being complied At present NML has developed the green belt over 25.74 acres by planting 18785 trees (28.5% of total area available to NML i.e 90.04 acres) with a density of 730 trees/acres. Further NML is committed to complete the requirement of 36% in a phased manner by FY 2027-2028.
4	Surface water Harvesting system Surface water harvesting system was filled with mud and other construction debris. Not much water was observed in the surface water harvesting reservoir. PAs need to clear the rainwater harvesting structure and restore it immediately	Complied Rainwater harvesting system was cleared of mud and construction debris and it was restored with lining and brick wall.

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

4.8.22. **Name of the EIA consultant:** M/s. Green C India Consulting Private Limited had initially done the EIA study and prepared the EIA/EMP report. Subsequent to the EAC meeting on 15th April 2021 meeting, Neo-Metaliks Limited has changed their EIA consultant and appointed Team Labs & Consultants, Hyderabad to revise the proposal to address the observations and suggestions of the honorable committee.

Present EIA Consultant: M/s. Team Labs and Consultants [S No. 146, List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/22/2300; valid upto 06/07/2022; Rev. 22, April 18, 2022].

4.8.23. During the meeting, project proponent submitted written submission on the following points:

i. Project proponent assure to install 12 additional dry fog dust suppression systems in addition to the existing 3.
ii. PP committed to install three continuous ambient air quality monitoring systems as per CPCB guidelines such as one in upstream, one in the down-stream and one at the cross-wind direction.
iii. PP proposed to install RO plant as tertiary treatment facility to ensure reuse of treated wastewater to an extent of 700 KL.
iv. PP assure to shall undertake plantation (total plants 5000 nos.) in the surrounding villages as part of CER activities with a budget of Rs. 20 lakhs during the financial years 2022-25.
v. PP has revised budget to address the issues raised during public hearing. Same has been revised at para 4.8.16 above.
vi. PP have been doing CSR programs in the neighbouring villages such as Hattala, Bascopa, Rajbandh, Bandra, Gopalpur, Gosaidanga, Chataldanga, Monarkonda,

Rupganja, and Kuldia, which are located within 10Km radius and we remain committed to extend the CER/CSR programs in these villages.

Observations of the Committee

4.8.24. The EAC noted the following:

i. The Committee noted that the EIA/EMP report for the expansion project is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
ii. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
iii. The Committee deliberated upon the certified compliance report of RO and action taken report submitted by PP with respect to the compliance status of the existing EC and found it's satisfactory.
iv. PP adopted three villages Hattala, Bascopa, Rajbandh, Bandra, Gopalpur, Gosaidanga, Chataldanga, Monarkonda, Rupganja, and Kuldia for the development and upgrading the standard of living under CER activities.
v. The EAC also deliberated on the written submissions submitted by the proponent and found it satisfactory.

Recommendations of the Committee

4.8.25. In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of 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. Three tier Green Belt shall be developed in 36% of total project area by end of monsoon, 2022 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. In addition to this, PP shall be undertaken plantation (total plants 5000 nos.) in the surrounding villages. 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. Compliance status in this regard, shall be submitted to concern Regional Office of the MoEF&CC.
ii. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
iii. PP shall install three Continuous Ambient Air Quality Monitoring Station (CAAQMS) as one in upstream, one in the down-stream and one at the cross-wind direction by end of July, 2022.
iv. PP shall provide RO plant as tertiary treatment facility to ensure reuse of treated wastewater to an extent of 700 KL.
v. 12 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. PP shall do plantation work in the surrounding villages also.

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

vii. 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.

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

ix. Particulate matter emission from stacks shall be less than 30 mg/Nm^3.

x. Blast Furnace shall be equipped with dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.

xi. Sinter Plant shall be equipped with Sinter cooler waste recovery system and suitable technology for control of dioxins and furans emissions from the plant.

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

B. General conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

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

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories 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.
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 Hattala, Bascopa, Rajbandh, Bandra, Gopalpur, Gosaidanga, Chataldanga, Monarkonda, Rupganja, and Kuldia 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; PM_{10}, SO_2, 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. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
xiii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
xiv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

4.9 Proposed 6 MTPA Integrated Steel Plant along with captive power generation of 893 MW by **M/s. Uttam Galva Ferous Limited** located at villages Kuduthini, Veniveerapura, Yerangaligi and Kolagallu, **Taluka & District: Bellary, Karnataka** [Online Proposal No. IA/KA/IND/263631/2022, File No. IA-J-11011/80/2014-IA-II(I)] – **Prescribing of Terms of Reference – regarding.**

4.9.1. M/s. Uttam Galva Ferrous Limited has made an application online vide proposal no. IA/CG/IND/263631/2022 dated 08/04/2022 in prescribed format (Form-I), copy of pre-

feasibility report along-with proposed ToR for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical Industries, 2(b) Mineral beneficiation, 4(b) Coke oven plants and 1(d) Thermal Power Plant under Category "A" of the schedule of the EIA Notification and appraised at central level.

Details submitted by Project proponent

4.9.2. The project of M/s. Uttam Galva Ferrous Limited located in villages Kuduthini, Veniveerapura, Yerangaligi and Kolagallu, Taluka & District: Bellary, Karnataka is for setting up of a 6 MTPA Integrated Steel along with captive power generation of 893 MW.

4.9.3. Environmental site settings:

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>1.</td><td>Total land</td><td>The proposed facilities will be occupying about 4877 acres of land.</td><td>Industrial land</td></tr>
<tr><td>2.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>The total land admeasuring 4877 acres acquired for setting up a single unit has already handed over to UGFL by KIADB.</td><td>-</td></tr>
<tr><td>3.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>The chosen project site is a readily available dry and barren land and no habitation exist in that land parcel, hence no R & R issues involves.</td><td>-</td></tr>
<tr><td>4.</td><td>Latitude and Longitude of all corners of the project site.</td><td><table><tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr><tr><td>1</td><td>15°11'04.61" N</td><td>76°49'29.66" E</td></tr><tr><td>2</td><td>15°11'39.04" N</td><td>76°50'46.06" E</td></tr><tr><td>3</td><td>15°14'06.37" N</td><td>76°46'33.65" E</td></tr><tr><td>4</td><td>15°13'24.88" N</td><td>76°46'18.38" E</td></tr></table></td><td></td></tr>
<tr><td>5.</td><td>Elevation of the project site</td><td>467 m above mean sea level</td><td></td></tr>
<tr><td>6.</td><td>Involvement of Forest land if any.</td><td>No involvement of Forest land.</td><td>-</td></tr>
<tr><td>7.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Project site: 3 natural drains are passing through project site. These drains will not be diverted, closed. Proper care will be taken to preserve these drains by providing safe distance and concreting the portion within project site.

Study area<table><tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr><tr><td>Allipura Reservoir</td><td>7.72 Km</td><td>South</td></tr></table></td><td></td></tr>
<tr><td>8.</td><td>Existence of ESZ/ ESA/ national park/ Wildlife sanctuary/ Biosphere reserve/ tiger reserve/</td><td>Nil.

Schedule I (part III) Bird Peafowl recorded in the study area. Wild Life Management Plan has been prepared & submitted to competent</td><td>-</td></tr>
</table>

S No	Particulars	Details	Remarks
	elephant reserve etc. if any within the study area	Authority for Approval.	

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

S No	Name of Facility	Configuration of each unit	Total Capacity
1	Coke oven and By-product plant	2x60 ovens & 2x60 ovens	2.74 MTPA
2	Beneficiation & Pellet plant	1x420 m^2	4 MTPA
3	Sinter plant	2x460 m^2	8.532 MTPA
4	Blast Furnace	2x4200 m^3	6.464 MTPA
5	Basic Oxygen Furnace (BOF)	SMS-I 2x160 T SMS-II 2x160 T LRF -I 2x160 T LRF -II 2x160 T VD - 2x160 T	6.0 MTPA
6	Continuous Casting Machine (CCM)	2x2.940 MTPA	5.88 MTPA
7	Rolling Mill (RM)	2x2.809 MTPA	5.615 MTPA
8	Captive Power Plant	2x200 MW 1x200 MW GBPP: 110 MW & 153 MW, TRT: 2x15 MW	893 MW
9	Oxygen Plant	4x1000 TPD	4000 TPD
10	Lime Plant	4x450 TPD	0.524 MTPA
11	Dolo Plant	2x125 TPD	0.150 MTPA
12	CDQ Process (Additional power)	-	40 MW

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

Raw material	Total Quantity (TPA)	Source	Mode of Transportation
Lump ore for SMS	72,000	Iron ore mines in Karnataka and Goa	Rail
Ore fines			
For Sinter plant	79,70,000	Indigenous Sandur/ Hospet	Rail
For Beneficiation	66,30,000	Indigenous Sandur/ Hospet	Rail
Prime coking coal	28,40,000	Coking coal will be imported from Australia, Indonesia, Canada, China and Venezuela	Rail

Raw material	Total Quantity (TPA)	Source	Mode of Transportation
Semi coking coal	12,16,500	Semi-coking coal will be imported from Australia, Indonesia, Canada, China and Venezuela	Rail
Coal for PCI	11,62,000	Australia/Indonesia	Rail
Coal for CPP (Full power generation)	39,70,000	Indigenous/ Indonesia	Rail
Anthracite for SP	1,16,500	Will be imported from Vietnam and/or South Africa	Rail
Lime stone		High grade low silica limestone will be imported from Japan, Thailand, Vietnam	Rail
For SP	7,11,000	High grade low silica limestone will be imported from Japan, Thailand, Vietnam, Middle east etc.	Rail/Road
For SMS (HG)	11,54,000	High grade low silica limestone will be imported from Japan, Thailand, Vietnam, Middle east etc.	Rail
For Pellet plant	85,500	Indigenous source	Rail/Road
Dolomite		Indigenous source	
For SP	7,92,000	Indigenous source	Rail/Road
For SMS (HG)	3,28,000	Indigenous source	Rail/Road
Quartzite for BF	34,000	Indigenous source	Rail/Road
Sand for SP	1,40,000	Indigenous source	Rail/Road
Bentonite for PP	35,000	Indigenous source	Rail/Road

4.9.6. The water requirement for the project is estimated to be about 145,080 m^3/day, out of which 7056 m^3/day of fresh water requirement will be obtained from the rain water harvesting and the remaining requirement of 138024 m^3/day will be met from the surface water from river Tungabhadra. Government of Karnataka (GoK) has granted permission to draw 4 TMC (12,930 m^3/hr) of surface water from downstream of Tungabhadra River, and agreement has been signed with Govt. of Karnataka on 28th September 2021.

4.9.7. The power requirement of the project estimated to be 650 MW and shall be met from total power generation of 893 MW from the plant operations. The captive power plant generation is about 600 MW from coal based and TRT, GBPP will generate another 293 MW. 40MW additional power will be generated from the CDQ process. In case of power evacuation/drawing will be from KPTCL substation 400kV/220kV grid near Kuduthini which is about 5 km from the project site.

4.9.8. The capital cost of the project is Rs.36000 Crores and the capital cost for environmental protection measures is proposed as Rs.5625 Crores. The proposed project will employ around 6427 people. However, this numbers will be reached over a period of time as per the progress of project. During the construction phase of about 5 years, on an average, about 1000 laborers will get employment opportunity.

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

4.9.10. Name of the EIA consultant: M/s Pollution and Ecology Control Services [S No. 74, List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/22/2254; valid upto 14/05/2022; Rev. 22, April 18, 2022].

4.9.11. Proposed Terms of Reference:**(Baseline data collection period: January – April 2022)**

Attributes	**Sampling**	
A. Air	No. of stations	Frequency
a. Meteorological parameters: Wind speed, direction, temperature, humidity, rainfall, etc.	1	Once during study
b. AAQ parameters: Particulate matter-10, Particulate matter-2.5, Sulfur di-oxide , Nitrogen di-oxide , Ammonia, Ozone, Nickel, Lead, Benzene, Arsenic, Benzo-a-pyrene and Ammonia , Carbon mono-oxide	12	24hourly samples twice a week for 12 locations covering one full season. (Period:- January to April 2022)
c. Noise- Noise levels in dB(A)	12	Noise level (day & night) will be monitored once during the study period.
B. Water		
Surface water/Ground water quality parameters	12	Once during study period Physical, Chemical and Bacteriological parameters
C. Land		
a. Soil quality b. Land use	12 locations	Once during study period
D. Biological a. Aquatic b. Terrestrial	10 km Study area	Once during study period
E. Socio-economic parameters	10 km Study area	Once during study period

Observations of the Committee

4.9.12. The Committee noted the following:

i. The instant proposal is for setting up of a 6 MTPA Integrated Steel along with captive power generation of 893 MW.
ii. Total land of 4877 acres is proposed for project out of which 33% area is proposed for green belt development.
iii. Three natural drainages are passing through the proposed project site.

Recommendations of the Committee

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

i. Action plan for 100 % solid waste utilization shall be submitted.
ii. Bag filters have been proposed for BOF fume control at converters. Secondary fume extraction system shall be provided for converter.
iii. Three natural drainage are located within project site, PP shall submit conservation plan for protection of these natural drainage.
iv. 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. In addition to this, action plan for extra green belt towards Rampura and Mudpur Villages shall also be provided.
v. 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.
vi. 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. In addition to this there are 3 streams are passing through a project site as indicated in layout plan. PP shall have to prepare a stream conservation plan considering contouring and levelling in order to protect an existing water body.
vii. 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.
viii. 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.
ix. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm^3 shall be furnished.
x. Sinter cooler waste heat recovery system shall be proposed. Action plan to control dioxins and furan in sinter plant shall be submitted.
xi. Action plan for desulphurization of Coke oven gases shall be submitted.
xii. BOD plant for coke oven is included. BOD plant shall be ZLD using latest technology for treatment of Coke Oven effluent
xiii. A scheme for Dry disposal of Iron Ore Beneficiation Plant (IOBP) tailings after dewatering shall be submitted.
xiv. Mass balance of Iron Ore Grinding and De-Sliming Plant (Beneficiation Plant) shall be submitted in the EIA report.

xv. Action plan for fugitive emission control in the plant premises shall be provided.
xvi. Action plan for rain water harvesting shall be submitted.
xvii. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
xviii. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be submitted.
xix. Action Plan shall be submitted for annual performance monitoring of all Pollution Control Devices.

4.10. Proposed change of fuel from LSHS to Natural Gas (Fuel oil as standby) in the existing 7.0 MTPA Iron ore Pelletisation plant by **M/s Arcelor Mittal Nippon Steel India Limited (Formerly Essar Steel India Limited)** located at Village Kancharapalem, Tehsil Vishakhapatnam Urban, **District Visakhapatnam, Andhra Pradesh.** [Online Proposal No. IA/AP/IND/264390/2022; File No. IA-J-11011/131/2022-IA-II(IND-I)] – **Prescribing of Terms of Reference under para 7(ii) of EIA, 2006 – regarding.**

4.10.1. M/s Arcelor Mittal Nippon Steel India Limited has established initially 4 MTPA iron ore pellet plant during 1991 after obtaining Consent to Establish (CTE) from APPCB on 12/07/1991. Thereafter, the plant was commissioned after obtaining Consent to Operate (CTO) from APPCB on 30/10/1997. Project proponent has undertaken expansion of iron ore pellet plant from 4 to 7 MTPA activity during 2006 prior to enactment of EIA, 2006.

4.10.2. As per the Ministry's circular dated 21/11/2006, the projects which are attracting the provisions of EIA, 2006 for which NOC issued before 14/09/2006 are not required to take Environment Clearance under the provisions of EIA Notification, 2006. In the instant case, the proponent has obtained CTE as well as CTO prior to 14/09/2006, hence EC has not been obtained by the PP under the provisions of EIA Notification, 2006.

4.10.3. As per the provisions of EIA, 2006, Iron ore pellet plant falls under primary metallurgy industry under schedule 3(a) and requires prior environment clearance from MoEF&CC.

4.10.4. Project proponent is continuing the operation of iron ore pellet within the consented capacity of 7 MTPA based on the periodic CTO renewal obtained from APPCB. Recent CTO renewal was accorded by APPCB on 28/03/2020 and is valid up to 31/12/2024.

4.10.5. During 2010, PP proposed for change of fuel from Low Sulphur Heavy Stock (LSHS) to Natural Gas without enhancing the iron ore pellet in the 7 Million Tons Per Annum (MTPA) Iron ore pellet plant. Due to this fuel change, PP reported that there will be substantial reduction in emission levels of SO_2 (9TPD to 0.0057TPD). The project proponent has sought for clarification regarding applicability of Environment Clearance for the change of fuel from LSHS to Natural Gas based on the condition prescribed by the APPCB in their CTE dated 6/1/2021 which states *that "the industry shall inform MoEF&CC regarding change of fuel and obtain a clarification from MoEF&CC whether EC is required for change of fuel. If required, the industry shall obtain EC from MoEF&CC".*

4.10.6. Salient features of the fuel change proposal

- GAIL is laying a dedicated natural gas pipe line from Kakinada to vizag with an investment of Rs. 650 Cr

- A tap off from main trunk line which is around 18km away from the plant is being laid by GAIL to the AM/NS plant boundary with an investment of Rs.45 Cr.
- No additional land required
- No storage of natural gas. It is only piped natural gas received from GAIL.
- No additional water required.
- No new facilities are coming up except gas burners, burner management systems, Safety installations
- Pipe line laying from GAIL PRS to inside the plant.
- No change in production capacities.
- Obtained Factories approval for the fuel change project from Director of Factories, Govt. of AP and got approval from Greater Visakhapatnam Municipal Corporation
- Substantial reduction in pollution loads in terms of SO_2, NOx & CO_2.
- Change of fuel cost is Rs. 10 Crores

4.10.7. As per the provisions of EIA Notification 2006, modernization of existing projects as indicated in the Schedule to the notification being undertaken in any part of India would require prior environment clearance from the concerned Competent Authority. Further, as per para 7(ii) a of the EIA Notification, 2006, *all applications seeking prior environmental clearance for the modernisation of an existing unit with increase in the total production capacity beyond the threshold limit prescribed in the Schedule to this notification through change in process and or technology shall be made in Form I and they shall be considered by the concerned Expert Appraisal Committee or State Level Expert Appraisal Committee within sixty days, who will decide on the due diligence necessary including preparation of Environment Impact Assessment and public consultations and the application shall be appraised accordingly for grant of environmental clearance in respect of projects or activities.*

4.10.8. Instant proposal involves only modernization of existing iron ore pellet plant by changing the fuel from LSHS to Natural Gas without increasing the production capacity. After examination, MoEF&CC asked the proponent to apply under the provisions of para 7(ii) of EIA Notification, 2006.

4.10.9. In pursuance to the above, M/s. ArcelorMittal Nippon Steel India Limited Visakhapatnam has made an application online vide proposal no. IA/AP/IND/264390/2022 dated 12/04/2022 in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical Industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

Details submitted by Project proponent

4.10.10. The project of M/s. ArcelorMittal Nippon Steel India Limited located in Survey No. 15 A of Kancharapalem, Vishakhapatnam, Andhra Pradesh is for Environmental clearance for change of fuel in the existing 7.0 MMTPA Iron Ore Pelletisation from LSHS (Fuel oil) to Natural Gas (Fuel Oil as stand by).

4.10.11. Environmental site settings:

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>Plant: 44.5154 ha (110 acre)
Stock Pile: 18.25ha (45.10 acre)</td><td>Land use: General Industrial use.</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>This land is on lease from Visakhapatnam Port Trust along with change of land use for establishing our pellet plant as well as CPP.</td><td>The long term (30 Years) of land lease agreement with Visakhapatnam Port Trust (VPT) was expired in September’2021. Project Proponent have applied for renewal for another 30 years and the renewal is under process with VPT.</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Not applicable</td><td>-</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all corners of the project site.</td><td>Coordinates of Plant Area
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>A</td><td>17.721773</td><td>83.271006</td></tr>
<tr><td>B</td><td>17.723110</td><td>83.272962</td></tr>
<tr><td>C</td><td>17.237741</td><td>83.275812</td></tr>
<tr><td>D</td><td>17.722076</td><td>83.276864</td></tr>
<tr><td>E</td><td>17.716586</td><td>83.277529</td></tr>
<tr><td>F</td><td>17.716586</td><td>83.274075</td></tr>
<tr><td>G</td><td>17.716764</td><td>83.272612</td></tr>
<tr><td>H</td><td>17.716796</td><td>83.271592</td></tr>
</table>
Coordinates of Stock pile Area (Outside Plant area)
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>A</td><td>17.712097</td><td>83.276589</td></tr>
<tr><td>B</td><td>17.711712</td><td>83.275379</td></tr>
<tr><td>C</td><td>17.711379</td><td>83.275233</td></tr>
<tr><td>D</td><td>17.704044</td><td>83.276112</td></tr>
<tr><td>E</td><td>17.703639</td><td>83.276788</td></tr>
<tr><td>F</td><td>17.703669</td><td>83.277232</td></tr>
</table></td><td>-</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>5 m above mean sea level</td><td>-</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>Nil.</td><td>-</td></tr>
</table>

vii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	**Project site:** Nil **Study area** Name Distance (km) Direction Bay of Bengal 3.3km E Narava Gedda 5.3km W Mehadri Gedda 9.2km NW	-
viii	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	**Project Site**- Nil **Study Area:** Kailasa konda Forest, (2.5 km) Kambala konda wildlife sanctuary (6.0 km) Yerra konda Rain Forest, (7.9km) Narrava Rain Forest (10.5km) Sitakonda Rain Forest (8.1km)	-

4.10.12. The existing project was accorded Consent to Establish [Consent for Establishment Order no: 13060/PCB/C.ESTT/RO-VSP/EE/2-2001-3719 dated 13/03/2001]. The company established 4 MMTPA Pelletisation plant in 1996. Later PP went for expansion of the Pelletisation plant from 3.3 MMTPA to 7.0 MMTPA under-II envisaging to carry the beneficiated ore fines in slurry form from the beneficiation plant located at Kirandul, Chhattisgarh state. PP also established a Coal based captive power plant to generate Electricity of net 25 MW for captive use. Consent to Operate for the existing unit was accorded by APPCB vide Consent Order No: APPCB/VSP/VSP/111/CFO/HO/2019- dated 04/10/2019 and subsequent amendment on name change vide Order No: APPCB/VSP/VSP/111/CFO/HO/2020- 28/03/2020. The validity of CTO is up to valid up to 31/12/2024.

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

S No	**Plant Equipment/ Facility**	**Consent for Establishment Order NO: 13060/PCB/C.ESTT/RO-VSP/EE/2-2001-3719 dtd. 13/03/2001 & Existing facilities as per Consent Order No: APPCB/VSP/VSP/111/CFO/HO/2019- dated 04/10/2019 and subsequent amendment on name change vide Order No: APPCB/VSP/VSP/111/CFO/HO/2020- 28/03/2020 valid up to 31/12/2024.**								**Proposed Units**		**Final (Existing + Proposed)**		**Remarks**
		Total (A+B)		**Implemented (A)**		**Un-implemented (B)**		**As per CTO**						
		Configuration	**Capacity**	**Configuration**	**Capacity**	**Configuration**	**Capacity**	**Configuration**	**Capacity**	**Configuration**	**Capacity**	**Configuration**	**Capacity**	
1	Pelletisation Plant-I	1 Nos	11,000 (TPD)	NA	11,000 (TPD)	NA	NA	1 Nos	11,000 (TPD)	NA	NA	1 Nos	11,000 (TPD)	Total Capacity : 7.0 MTPA @300 days of operation
2	Pelletisation Plant-II	1 Nos	12,333 (TPD)	NA	12,333 (TPD)	NA	NA	1 Nos	12,333 (TPD)	NA	NA	1 Nos	12,333 (TPD)	
3	Captive Power Plant net generation	1 Nos	25 MW	NA	25 MW	NA	NA	1 Nos	25 MW	NA	NA	1 Nos	25 MW	

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

S. No	Raw Material	Quantity required per annum			Source	Distance from site (Kms) approx	Mode of Transportation
		Existing TPA	Expansion TPA	Total TPA			
Proposed Raw material for the existing project							
1.	Iron ore Concentrate	82,00,000	NA	82,00,000	Slurry Pipeline/ Railway rakes	267	Pipeline
2.	Limestone	1,31,200	NA	1,31,200	Dubai	2894	Sea route
3.	Bentonite	82,000	NA	82,000	Kandla Gujarat	2077	Sea route
4.	Anthracite Coal	1,16,030	NA	1,16,030	Russia /Ukraine	9364	Sea route
5.	Steam Coal	1,77,500	NA	1,77,500	Indonesia	2240	Sea route
6.	Fuel oil	1,05,000	NA	1,05,000	HPCL	15	By Road
7.	Mill Scale	3,00,000	NA	3,00,000	Hazira	2100	Sea route
Proposed Raw material for the new project							
1.	Natural Gas	NA	0.4 MMSCMD	0.4 MMSCMD	GAIL/APGDC	2	(from GAIL PRS station) Pipe line

4.10.15. The total water requirement for the existing plant as 10205 m^3/day, out of which 3655 m^3/day is required for Captive Power Plant and water required for Pellet plant is 6550 m^3/day. Around 1200 m^3/day of freshwater requirement will be obtained from GMVC. Around 9120 m^3/day will be met from the Slurry recycled water. No additional water requirement is envisaged for the proposed change fuel project.

4.10.16. The power requirement for the proposed project is estimated as 40 MW, out of which 25 MW will be obtained from the Captive Power Plant and 15 MW will be sourced from APEDCL.

4.10.17. The capital cost of the project is Rs 1307.98 Cr for Pellet & Captive Power Plant along with 48.2 Cr for change of fuel. The capital cost for environmental protection measures is proposed as Rs 15.0 Crores. The employment generation from the existing project is 950 people.

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

4.10.19. Name of the EIA consultant: M/s. Ecomen laboratories Private Limited [S No. 154, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0203; valid upto 21/09/2023; Rev. 22, April 18, 2022].

4.10.20. Proposed Terms of Reference:**(Baseline data collection period: 19 October' 2021- 20 January' 2022)**

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
A. Air				
a) Meteorological	Wind Speed, Wind Direction	1 location at project site	One hourly continuous for	

Attributes	Parameters	Sampling		Remarks
		No. of stations	**Frequency**	
parameters	Max. Temperature Min. Temperature Relative Humidity Rain fall Solar radiation Cloud cover		one season	
b. AAQ parameters	PM (10)	11 locations, 2 at project site, 1 at stockpile area and 8 in buffer area (in downwind & crosswind location)	24 hourly twice a week	
	PM (2.5)		24 hourly twice a week	
	NO_2		8 hourly continuous and averaged for 24Hours twice a week	
	SO_2		8 hourly continuous and averaged for 24Hours twice a week	
	CO		8 hourly continuous and averaged for 24Hours twice a week	
B. Noise	Hourly equivalent noise levels dB(A)	Noise monitoring at 10 locations, 2 at project site and 8 in buffer area	24 hourly Once in a season	
	Day Time Noise Levels (Leq day) dB(A)		Once in a season	
	Night time Noise Levels (Leq night) dB(A)		Once in a season	
C. Water				
Surface	Surface water	Set of grab	Once in season	

Attributes	Parameters	Sampling		Remarks
		No. of stations	**Frequency**	
water/Ground water quality parameters	pH; Turbidity; Total Hardness (as $CaCO_3$); Total Alkalinity (as $CaCO_3$); Chlorides (as Cl); Sulphate (as SO_4); Nitrate (as NO_3); Fluoride (as F); BOD_3 Days at 27ºC; COD; Phenolic Compounds (as $C6H_5OH$); Lead (as Pb); Iron (as Fe); Arsenic (as As); Cadmium (as Cd); Total Chromium (as Cr); Mercury (as Hg); Copper (as Cu); Zinc (as Zn); Selenium (as Se); Oil & grease; Colour ; Dissolved solids; Residual free chlorine; Boron (as B); Calcium (as Ca); Magnesium (as Mg); DO;	samples during study period at 3 location		
	- Ground water Color; pH; Turbidity; Dissolved solids; Aluminium as Al; Ammonia (, as total ammonia-N);Anionic Detergents as MBAS; Barium as Ba; Boron as B; Calcium as Ca; Chloramines as Cl_2; Chloride as Cl; Copper as Cu;	Set of grab samples during study period at the above mentioned 5 locations for ground water.	Once in season	

Attributes	Parameters	Sampling		Remarks
		No. of stations	**Frequency**	
	Fluoride as F; Free Residual Chlorine; Iron as Fe; Magnesium as Mg; Manganese as Mn; Nitrate as NO_3; Phenolic Compounds as C_6H_5OH; Selenium as Se; Sulphate as SO_4. Total Alkalinity as $CaCO_3$. Total Hardness as $CaCO_3$. Zinc as Zn, Cd; Pb; Hg; As; Ni; Cr			
D. Land				
a. Soil quality	**Soil** Particle size distribution; Texture; pH. Electrical conductivity; Bulk density; Organic carbon; Sodium (Na); Potassium (K); Moisture content; Total Nitrogen; Available phosphorous; organic matter; Total Soluble Chloride; Total Soluble sulphate; Water holding capacity; Porosity;	2 location near project site and 4 locations in buffer area	Once in season	
b. Land use	**Land use/Land cover** Location code Total project area Topography Drainage (natural) Cultivated, forest, plantations, water bodies, roads and settlements	Study area	Once	

Attributes	Parameters	Sampling		Remarks
		No. of stations	**Frequency**	
E. Biological				
Terrestrial	-Inventorization of floral and faunal species in core and buffer zone -Density in core zone -Importance value index (IVI) of trees, -Biodiversity index -Identification of rare Threatened and endangered species	5 locations for study in buffer area	Five-Seven days in a season	
F. Socio-economic parameters	Demographic structure; Infrastructure resource base; Economic resource base; Health status; Morbidity pattern;	Study area	Once during Baseline Period	

4.10.21. PP requested for waiver of public hearing as the proposal involves only change of fuel from LSHS to Natural Gas.

4.10.22. During the meeting, project proponent submitted written submission on the following points:

i. Project request to consider the existing capacity of pellet plant as 7.0 MTPA by considering the 300 days of plant operation.

Observations of the Committee

4.10.23. The Committee noted the following:

i. The existing project was accorded consent to establish company established 4 MMTPA Pelletisation plant in 1996. Later on PP went for expansion of the Pelletisation plant from 3.3 MMTPA to 7.0 MMTPA prior to the enactment of EIA, 2006.

ii. The instant proposal is for seeking Environmental clearance of the change of fule in the existing pellet plant of 7 MTPA from LSHS (Fuel oil) to Natural Gas (Fuel Oil as stand by) without change in production capacity.

iii. There is no change in the land requirement and reduction in pollution load due to the proposed fuel change.

iv. Proposed modernization of existing unit was considered by the EAC under the provisions of para 7(ii)a and the public hearing is waived off.

v. There is a 25 MW CPP within the project site running on the strength of CTE/CTO from APPCB within the existing project site.

Recommendations of the Committee

4.10.24. After deliberations, the Committee recommended the project proposal for prescribing following specific ToRs under para 7(ii) of EIA, 2006 for undertaking detailed EIA and EMP study in addition to the generic ToRs enclosed at Annexure-1 read with additional ToRs at Annexure-2. Further, the Committee also recommended that public hearing for the proposed fuel change shall be waived off under para 7(ii) as the proposal involves change of fuel in the existing 7 MTPA pellet plant from LSHS to Natural with no increase in production capacity.

i. Cumulative environment impact assessment for the existing 7 MTPA pellet plant and 25 MW power plant for all the environmental components shall be carried out and submitted.
ii. Action plan for 100 % solid waste utilization shall be submitted.
iii. 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.
iv. 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.
v. 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.
vi. 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.
vii. 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.
viii. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm^3 shall be furnished.
ix. Action plan for fugitive emission control in the plant premises shall be provided.
x. Action plan for rain water harvesting shall be submitted.
xi. Action plan for the stock piles with impervious floor, provision of garland drains and

catch pits to trap run off material shall be submitted.

xii. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be submitted.

xiii. Action Plan shall be submitted for annual performance monitoring of all Pollution Control Devices.

4.11. Expansion of Integrated Steel Plant from 9.6 to 15.6 MTPA (Liquid Steel) by **M/s. Arcelormittal Nippon Steel India Limited** located at Hazira Village, Chorasi Tehsil, **District Surat, Gujarat** [Online Proposal No. IA/GJ/IND/265243/2022; File No. IA-J-11011/44/2004-IA-II(IND-I)] – **Amendment in Terms of Reference – regarding.**

4.11.1. M/s. ArcelorMittal Nippon Steel India Ltd. has made an online application vide proposal no. IA/GJ/IND/265243/2022 dated 20/04/2022 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-11011/44/2004-IA.II(I) dated 03/12/2021. The proposed project activity is listed at S. No. 3(a) Metallurgical Industries (ferrous & non-ferrous), 1(d) Thermal Power Plant & 4(b) Coke Oven Plant under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central level.

4.11.2. The committee noted that proposed ToR amendment involves the following:

1) Amendment in Plant land details & revised plant boundary:

Particulars	Description as per approved TOR	Description after Amendment	Remarks
Total Land	**Total Land : 884.88 Ha** Industrial: 805 Ha. Private: 14.15 Ha. Forest land 65.73 Ha. **For Expansion :** 65.73 Ha Forest land (Stage- FC approved) 14.15Ha _ applied for acquisition to State Govt 35 ha Material handling area from GMB 71.2 Ha area will be used from Existing area	**Total Land : 824.82 Ha** Industrial: 750.18 Ha. Private: 8.91 Ha. Forest Land :65.73 Ha Total Forest land involved in the project – 86.49 Ha • 20.76 Ha Forest land under existing area. • 65.73 Ha under the proposed area. **For Expansion:** 65.73 Ha Forest land (Possession taken and end use change under process) 8.91Ha – Direct purchase from land owners 72.53 Ha area will be used from Existing area	1) 35 Ha raw material handling & storage (RMHS) area allotted by GMB – Removed from the layout in view of matter being sub-judice. Alternate RMHS area arranged near Coke oven unit. 2) 29.95 Ha area reduced from existing plant/Township area in view of Forest lands which are notified by Revenue officials through recent DILR Survey (report dt. 17.03.2022) and forest application for regularization submitted. This forest land is excluded from the layout and no industrial facilities are existing nor proposed in this forest land. 3) 1.5 Ha Captive jetty area – used for Ro-Ro terminal by EBTL – Removed from the layout as matter is sub-judice. 4) 11.63 Ha Township

Particulars	Description as per approved TOR	Description after Amendment	Remarks
			Land for which we have clear title and which was not included in the TOR application layout earlier is now included in the amendment application. 5) 20.76 Ha Forest land in Township area. Status: Stage-I approval obtained and Stage II approval under process. We inadvertently missed out this land parcel in our upstream expansion project TOR application initially, however, included now in our present application for ToR amendment

2) Amendment in Project configuration in line with modernization Project EC dated.02.03.2022.

Plant/ Equipment /Facility	Configuration as per approved TOR dated.03.12.2021	Proposed Configuration	Final configuration after amendment	Remarks, if any
HBI Plant (DRI Mod I to VI) (in MTPA)	Mod I-IV: 4.0 Mod:V -1.98 Mod VI: 1.85	No change	Mod I-IV: 4.0 Mod: V -1.98 Mod VI: 1.85	
Blast Furnace (BF) (in MTPA)	1 x 3.0 2 x 4.0	No change	1 x 3.0 2 x 4.0	
Sinter Plant	1x 1.48 (1 x 120 m^2) 2 x 3.5* (~ 325 m^2 each)	7.0 MTPA	1x 1.48 (1 x 120 m2) 2 x 3.5 (~ 325 m^2 each)	***7.0 MTPA plant could not be implemented due to fund constraints and legal cases at the NCLT, and it was dropped vide modification EC dated 02.03.2022.** **Now, it is proposed to install 7.0 MTPA sinter plants part of expansion. (It will comprise of 02 number plants).**
Coke Oven (Recovery Type)	2 x 59 Ovens 4 x 59 Ovens	No Change	2 x 59 Ovens 4 x 59 Ovens	

Plant/ Equipment /Facility	Configuration as per approved TOR dated.03.12.2021	Proposed Configuration	Final configuration after amendment	Remarks, if any
Air Separation Plant (Nm3/Hr)	1 X 343 TPD 1 X 257 TPD 1 X 785 TPD 3 X 1714 TPD 1 X 700 TPD 1 X 2200 TPD (Only oxygen)	No Change	1 X 343 TPD 1 X 257 TPD 1 X 785 TPD 3 X 1714 TPD 1 X 700 TPD 1 X 2200 TPD (Only oxygen)	
SMS-1 (EAF 4 Nos.)	4 x 150 MT Heat size	No Change	4 x 150 MT Heat size	
SMS-2	4 x 200 MT Heat size	No Change	4 x 200 MT Heat size	
SMS-3 (BOF-3 nos.)	3 x 350 MT Heat size	No Change	3 x 350 MT Heat size	
Corex Plant	2 x 0.85	No Change	2 x 0.85	
Lime Plant (Lime/Dolime	1 x 0.45 1 x 0.48 1 x 0.27 1 x 0.8	No Change	1 x 0.45 1 x 0.48 1 x 0.27 1 x 0.8	
Plate Mill	1 x 1.5	No Change	1 x 1.5	
CSP and HRC	1 x 3.5 1 x 4.5 1 x 6.0	No Change	1 x 3.5 1 x 4.5 1 x 6.0	
CRM	1 x 1.5 1 x 0.54 1 x 2.2 1 x 1.0	No Change	1 x 1.5 1 x 0.54 1 x 2.2 1 x 1.0	
H Saw Pipes (in MTPA)	1 x 0.15 1 x 0.15	No Change	1 x 0.15 1 x 0.15	
L Saw Pipes (in MTPA)	1 x 0.33	No Change	1 x 0.33	
CPP (in MW)	1x475 MW 1X31 MW 1X40 MW 1X10 MW **1X48MW** 2X100 MW 2X25MW	854 – 48# = **806 MW**	1x475 MW 1X31 MW 1X40 MW 1X10 MW 2X100 MW 2X25MW	**#48 MW Power plant dropped vide modification project EC dated.02.03.2022.**
Waste Heat Recovery based Power Plant	1 x 25 MW 1 x 20 MW 1x 100 MW CDQ	no change	1 x 25 MW 1 x 20 MW 1x 100 MW CDQ	
Jetty (length in M)	456 m + 734 m	no Change	456 m + 734 m	

Observations of the Committee

4.11.3. The Committee noted the following:

i. Total involvement of forest land is reported to be 116.44 ha whereas amendment is sought for inclusion of forest land of 86.49 ha only.
ii. Project proponent was unable to explain the overall involvement of forest land in the entire steel complex along with the present land use pattern of the said forest land. Further, PP has excluded three parcels of land which are reported to be under sub-judice. A comprehensive layout of the entire steel complex in this regard was not presented before the EAC to take an appropriate view in the matter.
iii. Due to the change in land requirement, project proponent was unable to explain the likely changes to be made in the existing and expansion plant facilities inter-alia including the material handling & management of the entire steel complex.
iv. Committee opined that site visit by the sub-committee may be undertaken to look in to above for appropriately addressing the environmental concerns arising out of the existing and proposed expansion in a holistic manner.

Recommendations of the Committee

4.11.4. In view of the foregoing and after deliberations, the Committee recommended that subcommittee of EAC Industry-1 shall undertake a site visit to the project site and thereafter based on the site visit report the instant proposal for ToR amendment shall be considered by the EAC.

4.12. Expansion of Ferro Alloy Plant, Captive Power Plant and Installation of Steel Melting Shop, Mineral Fibre Plant by **M/s. Sarda Metals & Alloys Limited** located at APIIC Industrial Park, Kantakapalli Village, Kothavalasa Mandal, **Vizianagaram District, Andhra Pradesh** [Online Proposal No. IA/AP/IND/260192/2017, File No. J-11011/164/2009- IA.II(I)] **– Reconsideration for Environment Clearance based on ADS reply– regarding.**

4.12.1. M/s. Sarda Metals & Alloys Limited has made an online application vide proposal no. IA/AP/IND/260192/2017 dated 17/03/2022 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 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.

Details submitted by Project proponent

4.12.2. The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	Validity of ToR
17/04/2020	Standard Terms of Reference	Standard ToR issued	22/04/2020	21/04/2024

4.12.3. The project of M/s. Sarda Metals & Alloys Limited (SMAL) is located at APIIC Industrial Park, Kantakapalli Village, Kothavalasa Mandal, Vizianagaram District, Andhra Pradesh State is for Expansion of Ferro Alloy Plant, Captive Power Plant and Installation of Steel Melting Shop, Mineral Fibre Plant.

4.12.4. Environmental Site Settings:

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land:</td><td>113.7 ha (280.96 acres)
[Private land: 113.7 ha]
<table>
<tr><th>S No</th><th>DETAILS</th><th>Existing</th><th>Total (After Expansion)</th></tr>
<tr><td>01</td><td>Process Area</td><td>32.69</td><td>117.91</td></tr>
<tr><td>02</td><td>Common utility area</td><td>21.43</td><td>21.43</td></tr>
<tr><td rowspan="3">03</td><td>Green Belt</td><td></td><td></td></tr>
<tr><td>a. Developed Greenbelt</td><td>93.23</td><td>93.23</td></tr>
<tr><td>b. Proposed Miyawaki Plantation</td><td>-</td><td>1.12</td></tr>
<tr><td>04</td><td>Vacant Land</td><td>133.61</td><td>47.27</td></tr>
<tr><td></td><td>Total Area</td><td>280.96</td><td>280.96</td></tr>
</table></td><td>Land use: Industrial</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Expansion project is proposed within existing project area of 113.7 ha. Total land of 113.7 ha is owned by project proponent. No additional land is required for the expansion project.</td><td>--</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project Site: NIL

Study Area:
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Kantakapalli Village</td><td>0.46 km</td><td>North</td></tr>
<tr><td>Katakapalli Village</td><td>1.0km</td><td>NNE</td></tr>
<tr><td>Kothavalasa</td><td>0.70 km</td><td>NNW</td></tr>
</table></td><td>No R&R. is required for proposed project.</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all corners of the project site.</td><td>
<table>
<tr><th>S No</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>A</td><td>17°56'47.70"N</td><td>83°13'4.60"E</td></tr>
<tr><td>B</td><td>17°56'12.89"N</td><td>83°13'31.44"E</td></tr>
<tr><td>C</td><td>17°56'39.92"N</td><td>83°12'46.32"E</td></tr>
<tr><td>D</td><td>17°56'31.16"N</td><td>83°13'47.88"E</td></tr>
</table></td><td>-</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>102 m above mean sea level</td><td>-</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No forest Land is involved</td><td>-</td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td><u>Project Site:</u> NIL

<u>Study area:</u>
<table>
<tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Pond</td><td>0.27 km</td><td>West</td></tr>
<tr><td>Pedda Gedda</td><td>5.55 km</td><td>SE</td></tr>
<tr><td>Meghadri Gedda</td><td>3.45 km</td><td>SW</td></tr>
<tr><td>Vagu (Nala)</td><td>7.1 km</td><td>NE</td></tr>
</table></td><td>-</td></tr>
<tr><td>viii.</td><td>Existence of</td><td>NIL</td><td>-</td></tr>
</table>

S No	Particulars	Details	Remarks
	ESZ/ESA/ national park/ wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area.	However, following Forests are located within study area: • Advanapalem RF – 1.3 km – SE • Muchcherla RF - 7.2 km – ESE	

4.12.5. Chronology of existing Environmental Clearance given as below:

Date	Detail of Environmental Clearance
26/11/2009	EC accorded Ministry vide letter no J- 11011/164/2009 – IA II (I) dated 26/11/2009.
04/05/2010	Amendment in Environmental Clearance accorded Ministry letter dated 04/05/2010
04/06/2015	Extension of Validity of EC accorded Ministry letter dated 04/06/2015 for 2 years from 26/11/2014 to 25/11/2016.
06/12/2016	Extension of Validity of EC accorded Ministry letter dated 06/12/2016 for 3 years from 26/11/2016 to 25/11/2019.
02/07/2018	Amendment in Environmental Clearance accorded Ministry letter dated 02/07/2018

Consent & Authorization Order(CAO) is accorded Andhra Pradesh Pollution Control Board (APPCB) vide consent Order No. APPCB/VSP/VZN/200/CFO/HO/2021- dated 19/10/2021. Validity of CAO is up to 31/05/2023.

4.12.6. Implementation status of the existing EC:

S No	Facilities	EC dated 26/11/2009	EC Amended on 04/05/2010	EC Amended on 02/07/2018	Implementation Status as on 17/03/2021	Production as per CTO
1.	Ferro Alloys *	2x33 MVA (1,50,000 TPA)	No change	**3x33 MVA (1,50,000 TPA)**	2x33 MVA 1,00,000 Implemented	2x33 MVA (1,00,000 TPA)
2.	Sinter Plant	**1x24m^2 (1,25,000 TPA)**	No change	No change	Not Implemented	
3.	Thermal Power Plant	4x60 (240 MW)	Configuration change as **3x80 (240 MW)**	No change	1x80 MW Implemented	1x80 MW
4.	Coke Oven with Stamp Charging	4,00,000 TPA	No change	Drop the facility	Not Implemented	--
5.	Sponge Iron Plant	**2x500 TPD (3,00,000 TPA)**	No change	No change	Not Implemented	--
6.	Blast Furnace	**1x350 m^3**	No change	No change	Not Implemented	--

S No	Facilities	EC dated 26/11/2009	EC Amended on 04/05/2010	EC Amended on 02/07/2018	Implementation Status as on 17/03/2021	Production as per CTO
		(2,50,000 TPA)				
7.	SMS					
7a	Induction Furnace	5x15 T (2,50,000 TPA)	No change	**4x22T (3,50,000 TPA)**	Not Implemented	--
7b	ARC Furnace	1x40 T (2,50,000 TPA)	No change	Drop the facility	--	--
8.	Rolling Mills	4,50,000 TPA	No change	**3,50,000 TPA**	Not Implemented	--
9.	Iron Ore Crushing Plant	6,00,000 TPA	No change	Drop the facility	--	--
10.	Pellet Plant	**6,00,000 TPA**	No change	No change	Not Implemented	--
11.	Railway Siding	--	No change	No change	Not Implemented	--
12.	Briquetting Plant**	--	--	--	1,05,000 TPAImplemented	1,05,000 TPA

** As per CFO dated 19/10/2021 PP shall manufacture only Ferro Silicon, Ferro Manganese & Silico Manganese only.*

***Briquetting Plant does not require the Environmental Clearance and is now categorized as Green Category as per CPCB guidelines. Hence, CFE dated 10/08/2021 for the Briquetting Plant of capacity 1,05,000 TPA was obtained by PP.*

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

SNo	Nam of the product	Units implemented as per EC dated 26/11/2009 and amended on 04/06/2016 & 02/07/2018 (A)		Proposed expansion (B)		Total (A+B)	
		Config-uration	Capacity (TPA)	Config-uration	Capacity (TPA)	Config-uration	Capacity (TPA)
1.	Ferro Alloys	2x33 MVA	1,00,000	Existing 2x33 MVA upgraded to 2x36 MVA and add new 3x36 MVA	2,50,000	5x36 MVA	2,50,000
2.	Captive Power Plant	1x80 MW	80 MW	1x80 MW	80 MW	2x80 MW	160 MW
3.	Steel Melting Shop	--	--	IF: 4x22 T	3,00,000	IF: 4x22 T	3,00,000
4.	Mineral Fiber Plant- 5 lines	--	--	--	Add New unit 1,50,000	--	1,50,000
5.	Briquetting Plant	--	1,05,000	--	--	--	1,05,000

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

S No	Unit	Raw Material	Existing	Additional	Total	Source	Mode of Transportation
			Tones Per Annum				
1	Ferro Alloys	Manganese Ore	200000	300000	500000	South Africa, Australia, Brazil, Gabon, India	Ship/Road / Rail
		Coal	69000	103500	172500	South Africa	Ship/Road /Rail
		Coke	12000	18000	30000	India / China	Ship/Road /Rail
		FeMn Slag	100000	150000	250000	Japan/ India	Ship/Road
		Quartz	10000	15000	25000	India	Road
		Dolomite	20000	30000	50000	India	Road
2	Captive Power Plant	Coal	505476	505476	1010952	Indonesia	Ship/Road
3	SMS & Rolling Mill	Scrap	-	274305	274305	India / Import	Ship/Road
		DRI	-	68575	68575	India	Road
		Ferro Alloys	-	3349	3349	In house	-
		Aluminum	-	80	80	India	Road
		Fluxes	-	3508	3508	India	Road
4	Briquetting Plant	GCP Dust	3000	4500	7500	In-house	-
		Mn Ore Dust	28672	43008	71,680	In-house	-
		Binder	700	1400	2100	India	Road
		Additive	350	700	1050	India	Road
		Coke Fines	2450	4900	7350	In house	-
5	Mineral Fibre Plant	SiMn Slag	-	1,50,000	1,50,000	In house / India	Road

4.12.9. The present water consumption of the plant is 980 m^3/day and is supplied by Greater Visakhapatnam Municipal Corporation (GVMC). The total water requirement after expansion will be about 2700 m^3/day. SMAL has obtained in principle permission for 2700 m^3/day water drawl from GVMC vide Lr.No.53/2012-13/E. II(WS-M) dated 16/01/2013.

4.12.10. Existing power requirement of 54.30 MW which is being met from 80 MW Captive Generation. Total power requirement after proposed expansion will be 117.5 MW which will be met from captive power plant of 160 MW. In addition to these, 1x600 kVA DG set are proposed for emergency backup.

4.12.11. Baseline Environmental Studies:

Period	**December, 2020 to February, 2021**
AAQ parameters at 08 Locations (min and max)	PM_{10} = 30.6 to 67.2 µg/m^3 $PM_{2.5}$ = 20.6 to 32.8 µg/m^3 SO_2 = 8.5 to 16.4 µg/m^3 NO_2 = 10.2 to 17.8 µg/m^3 CO = < 1 ppm
AAQ modelling (Incremental GLC)	PM = 7.56 µg/m^3 SO_2 = 4.49 µg/m^3 NOx = 4.49 µg/m^3
Ground water quality at 09 locations	pH = 6.72 – 7.48 Total Hardness = 195 - 575 mg/l Chlorides = 40-198 mg/l Fluoride = 0.29 – 1.36 mg/l

<table>
<tr><td>Period</td><td>December, 2020 to February, 2021</td></tr>
<tr><td></td><td>Heavy Metals (Zinc) = 0.02 – 1.69 mg/l</td></tr>
<tr><td>Surface water quality at 0 Locations</td><td>There are no rivers in the study area. However, there are many dry tanks and Geddas (nalla or streams) which are not perennial. Surface water samples could not be collected during the study period since there was no water in tanks and Geddas</td></tr>
<tr><td>Noise Levels At 08 Locations (day and night)</td><td>51.6 to 71.8 dB (A) for the day time and
41.3 to 67.4 dB (A) for the Night time.</td></tr>
<tr><td colspan="2">Traffic assessment study Findings
➢ Traffic study carried out at Kantakapally railway yard, Gangavaram Port, Vizag Port.

➢ There are 3 sources from which the raw materials will reach the plant
• From Kantakapally railway siding (40%).
• From Vizag port (30%).
• From Gangavaram port (30%).

TRAFFIC SCENARIO OF STUDY ROADS AFTER ADDING THE TRUCKS
<table>
<tr><th>Roads</th><th>Towards</th><th>V
PCU's/day</th><th>C
PCU's/day</th><th>V/C</th><th>LoS</th></tr>
<tr><td rowspan="2">NH-5 NH-16/ AH-45 (2+2 lanes divided)</td><td>Project site</td><td rowspan="2">(9,441+9,440) = 18,881</td><td rowspan="2">60,000</td><td rowspan="2">0.31</td><td rowspan="2">B</td></tr>
<tr><td>Anakapalle</td></tr>
<tr><td colspan="2">SH-39 (2-Lanes Undivided)</td><td>12,392</td><td>15,000</td><td>0.82</td><td>E</td></tr>
<tr><td rowspan="2">Gangavaram Port (2+2) Lanes Divided</td><td>NH-5</td><td rowspan="2">(4,937+4,735) = 9,672</td><td rowspan="2">60,000</td><td rowspan="2">0.16</td><td rowspan="2">A</td></tr>
<tr><td>Port</td></tr>
<tr><td rowspan="2">GNT Road/ Port Road (2+2) Lanes Divided (Near Vizag Port)</td><td>NH-5</td><td rowspan="2">(12,201+15,062) = 27,263</td><td rowspan="2">60,000</td><td rowspan="2">0.45</td><td rowspan="2">C</td></tr>
<tr><td>Port</td></tr>
<tr><td colspan="2">Vizianagaram road</td><td>7,851</td><td>15,000</td><td>0.52</td><td>C</td></tr>
<tr><td colspan="2">Kotthuru road</td><td>5,465</td><td>15,000</td><td>0.36</td><td>B</td></tr>
</table>
* Note: Capacity as per IRC-106:1990.

It is concluded that the expansion of the project from the existing do not have any adverse traffic impact based on the logistics developed and scientific analysis carried out.</td></tr>
<tr><td>Flora and fauna</td><td>There are no Schedule-I species presented in study area.</td></tr>
</table>

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

S No	Type of Waste	Source	Quantity generated(TPA)			Disposal
			Existing	Proposed	Total	
A	**Solid waste**					
1.	Slag	Ferro Alloy plant	1,20,000	3,00,000	4,20,000	SiMn Slag will be provided to brick manufacturers / Raw

S No	Type of Waste	Source	Quantity generated(TPA)			Disposal
			Existing	Proposed	Total	
						material for Mineral Fiber Plant.
2.	Dust	Ferro Alloy plant	3,000	4,500	7,500	Recycled and used as feed material for Briquetting Plant
3.	slag	Induction furnace (IF)	--	31,880	31,880	Will be used as road Ballast/Road fill material
4.	Dust	IF primary fugitive emission system	--	3,640	3,640	Reused as feed material for Briquetting Plant.
5.	Dust	IF secondary fugitive emission system	--	1,680	1,680	Reused as feed material for Briquetting Plant.
6.	Mill scale	CCM & rolling Mill	--	3,000	3,000	Reused as a raw material in the Ferro Alloys plant
7.	Ash	CPP	90,000	90,000	1,80,000	Will be disposed to brick Manufacturers
B	**Hazardous Waste**					
8.	Waste Oil/ Spent Oil	From plant	224 LPM	800 LPM	1024 LPM	Stored in covered HDPE Drums and Used for lubrication purpose & will be given to APPCB approved vendors

4.12.13. Public Consultation:

Details of advertisement given	07/11/2021: "Times of India" (English News Paper) and Sakshi (Telugu News Paper)
Date of public consultation	10/12/2021
Venue	Near to the existing industry premises of SMAL
Presiding Officer	Chairmanship of District Collector, Vizianagaram District.
Major issues raised	i. Compensation to the land losers & mango garden farmers ii. black dust pollution on mango and cashew plants iii. Water pollution to Marrigedda iv. Impact due to Rain water being discharged to RWH Pit. v. 75 to 80 % employment should be given for locals vi. Preference to local people for petty contracts like earth works, civil works etc., vii. Construction of Hospital

	viii. Construction of burning shed in grave yard of Kantakapalli ix. Construction of Community Hall x. Development of roads, nallas and other Infrastructure xi. Skill Development Programs

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

S. No.	Activity		Year			Total (Rs Lakhs)
			2022-23	2023-24	2024-25	
1.	**Land Related Issues**					
c)	Compensation to the land losers	Physical Nos	Nil Already paid to APIIC. Any discrepancies to be brought to APIIC Notice for resolution			-
		@Village				-
		Budget Rs Lakhs				-
d)	Compensation to the farmers whose mango garden was disturbed during laying the power line through Kothasunkarapalem village	Physical Nos	An amount of Rs. 21,51,15032 /- has been paid to land owners on whose lands the towers were erected as stipulated by APTRANSCO. Those who have not received the compensation may approach SMAL for taking up the issue with APTRANSCO			-
		@Village				-
		Budget Rs Lakhs				-
2.	**Air Pollution Related issues**					
c)	Impact on black dust pollution on mango and cashew plantation from the industry	Physical Nos	Nil			*Rs. 16877 lakhs earmarked towards air pollution control system and online monitoring systems as part of EMP
		@Village				
		Budget Rs Lakhs				
d)	Option to reduce	Physica	Implementation of WHRB within 3 years			Rs.

S. No.	Activity		Year			Total (Rs Lakhs)
			2022-23	2023-24	2024-25	
	coal consumption to meet COPS guideline for reducing CO2 emissions	l Nos @Village Budget Rs Lakhs	Implementation of Roof top solar panels within 3 years			7500 Lakhs Rs. 10 Lakhs
3.	**Water Pollution Related issues**					
c)	Water pollution to Marrigedda	Physical Nos	Nil			Rs. 20.0 Lakhs
		@Village	SMAL will construct a sedimentation pit before monsoon to collect the runoff water. Analysis of the water will be carried out periodically.			
		Budget Rs Lakhs	20			
d)	Impact of rainwater being discharged from the plant site and joining the narasapalli Tank.					
4.	**Greenbelt Development Related Issues**					
c)	Avenue plantation on internal roads	Physical Nos	1000-1500 Plants	1000-1500 Plants	1000-1500 Plants	Rs. 6.0 lakhs
		@Village	Kantakapalli	Kotturu	Sunkarapalem	
		Budget Rs Lakhs	2.0	2.0	2.0	
d)	Plantation of Fruit bearing and medicinal Plants	Physical Nos @Village	Within the plant site as part of Greenbelt development program which includes Miyawaki Plantation			*Rs. 20 lakhs
			7	7	6	
		Budget Rs Lakhs				
5.	**Employment related issues**					
f)	Jobs to local and surrounding villages		Preference will be given to locals from the surrounding villages during the expansion phase also			-
g)	75 to 80 % employment should be given for locals					
h)	Provide the employment					

S. No.	Activity		Year			Total (Rs Lakhs)
			2022-23	2023-24	2024-25	
	to the people who lost the land					
i)	Priority to local and unemployed youth					
j)	Preference to local people for petty contracts like earth works, civil works etc.,					
6.	**Occupational safety related Issues**					
c)	Monitoring the heat near furnace	Physical Nos	Conducting industrial hygiene test and provision of full body heat retardant suits			Rs. 15.0 Lakhs
		@Village	Within the plant			
		Budget Rs Lakhs	5.0	5.0	5.0	
d)	PPE to all the workers	Physical Nos	PPE to all workers is provided			Rs. 10.5 Lakhs
		@Village	Nil			
		Budget Rs Lakhs	3.5	3.5	3.5	
7.	**Rain water Harvesting Related Issues**					
a)	Rainwater Harvesting	Physical Nos	Nil, Done with in the plant site			
		@Village				
		Budget Rs Lakhs	6.0			
8.	**Compliance to Pollution Control Rules and Regulations Issues**					
a)	Comply with emission standards and follow the rules and regulation of MoEFCC / APPCB	Physical Nos	Nil			Budget for implementation of pollution control equipment (EMP Budget) already provided to comply with MoEFCC / APPCB Rules and Regulations Issues
		@Village				
		Budget Rs Lakhs				
9.	**CSR Related Issues**					
n)	Charging for	Physical	SMAL has implemented the RO Plants and			-

S. No.	Activity		Year			Total (Rs Lakhs)
			2022-23	2023-24	2024-25	
	RO water	Nos @Village Budget Rs Lakhs	the village panchayat is charging for maintaining the RO Plant			
o)	Medical camps, Issue of Health Cards and supply of medicines	Physical Nos	4 camps per village per year will be taken up			Rs. 30.0 Lakhs
		@Village	Kantakapalli	Kotturu	Sunkarapalem	
		Budget Rs Lakhs	10	10	10	
p)	CSR amount is not spent in the nearby villages	Physical Nos @Village	District Collector has advised the govt. Officials to form a committee which will prioritize the needs of the villages and coordinate the implementation of CSR Budgets.			Rs. 200 Lakhs
		Budget Rs Lakhs	SMAL has earmarked the budget of Rs. 200 lakhs for this purpose			
q)	CSR amount should be 5% of the net profit	Physical Nos @Village	District Collector has advised the govt. Officials to form a committee which will prioritize the needs of the villages and coordinate the implementation of CSR Budgets.			
		Budget Rs Lakhs	SMAL has earmarked the budget of Rs. 200 lakhs for this purpose			
r)	Formation of Coordination committee with Govt. officials, PCB Officials and Local Villagers	Physical Nos @Village	District Collector has advised the govt. Officials to form a committee which will prioritize the needs of the villages and coordinate the implementation of CSR Budgets.			Rs. 1.0 lakhs per year
		Budget Rs Lakhs	SMAL has earmarked the budget of Rs. 1.0 lakhs per year for this purpose			
s)	Construction of Hospital	Physical Nos	SMAL is regularly undertaking the health camps for the benefit of the local villagers. SMAL has started a polyclinic in which registered MBBS Doctor sits for alternate days to give free health check-up and consultancy. Company also provides free medicines to all the villages as prescribed by the doctor. SMAL is providing the ambulance service to transport in case of emergency to local Government hospital which located at			Rs. 30.0 lakhs

S. No.	Activity		Year			Total (Rs Lakhs)
			2022-23	2023-24	2024-25	
			Kothavalasa within 6kms.			
		@Village	SMAL will try to contribute more to local health centers			
		Budget Rs Lakhs	10.0	10.0	10.0	
t)	Construction of burning shed in grave yard of Kantakapalli	Physical Nos	1 Nos			Rs. 10 lakhs
		@Village	Kantakapalli			
		Budget Rs Lakhs	10.0			
u)	Construction of Community Hall	Physical Nos	This will be taken up in the District committee to be constituted by District collector. Since the land has to be identified by the village panchayat.			
		@Village				
		Budget Rs Lakhs	CSR Budget			
v)	Construction of additional overhead tank in kantakapalli, Sunkurapalem	Physical Nos	SMAL has upgraded the transformer capacity by spending Rs 5.0 Lakhs to ensure that 24X7 water supply in the villages. However, this issue will be taken up by the committee to be constituted by District Collector.			
		@Village				
		Budget Rs Lakhs				
w)	Construction of RO plant in sambhayyapalem, sunkurapalem and supply RO water free of cost.	Physical Nos	1	1	1	Rs. 6.0 Lakhs Water Quality will be tested
		@Village	Kotturu	Sambhayyapalem	Sunkurapalem	
		Budget Rs Lakhs	2.0	2.0	2.0	
x)	Development of roads, nallas and other Infrastructure needs of the village under CSR activities	Physical Nos	This will be taken up in the District committee to be constituted by District collector. SMAL will provide the necessary budget from the CSR Funds			Rs. 200 Lakhs
		@Village				
		Budget Rs Lakhs				
y)	Skill Development Programs	Physical Nos	Tie up with local ITI or Polytechnical Colleges and sponsoring of students.			Rs. 30 Lakhs
		@Village	Kantakapalli	Kotturu	Sunkurapalem	

S. No.	Activity		Year			Total (Rs Lakhs)
			2022-23	2023-24	2024-25	
		Budget Rs Lakhs	10.0	10.0	10.0	
z)	Support to rural primary education for weaker sections	Physical Nos	Identification of Weaker section students and providing necessary education aids to ensure that they attend the school			Rs. 15 Lakhs
		@Village	Kantakapalli	Kotturu	Sunkurapalem	
		Budget Rs Lakhs	5.0	5.0	5.0	
		Total Rs.				**7883.5 Lakhs**

4.12.14. Existing capital cost of project was Rs.1242 Crores. The capital cost of the proposed expansion project is Rs. 1242 Crores and the capital cost for environmental protection measures is proposed as Rs. 170.47 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 17.194 Crores. The employment generation from the proposed project / expansion is 2523 both direct and indirect. The detail of cost for environmental protection measures is as follows:

S No	Particulars	Capital cost in Lakhs	Recurring Per Annum in Lakhs
1	Furnace-3, 4 & 5 (Bag House, FD cooler, Chimney)	8880	884
2	Mineral fibre plant-1 & 2 (Fume extraction system – 2Nos, Chimney)	537	54
3	MFB-3 Nos (Fume extraction system-2Nos)	1260	126
4	Steel Melting Shop (SMS) (Dust extraction System, Bag Filter)	2938	294
5	Power plant (ESP, Chimney, Ash Handling System, Dust Extraction System, Dust Suppression System, FGD) **	3002	300
6	Continuous Stack Emission Analyzer for Furnace – 3, 4 & 5	120	12
7	Continuous Stack Emission Analyzer for CPP	40	4
9	Continuous Stack Emission Analyzer for SMS	40	4
10	Continuous Ambient Air Quality Station, (1 No) *	60	6
11	Environmental Monitoring Program and Occupational Health Survey	0	20
12	Miyawaki Plantation (Greenbelt)	20	2
13	Rain Water Harvesting Ponds (1 & 2)	60	5
14	Storm Water Management	30	3
15	Effluent Treatment Plant	30	3
16	Three Modular Sewage Treatment Plant	30	2.4
Total		**17047**	**1719.4**
17	Addressal to public consultation concerns	7883.5	--

Note: **PP has already implemented three Continuous Ambient Air Quality Monitoring Stations (CAAQMS) at Main Gate, DM Plant and Coal Handling Plant. Budget has been provided to implement one more CAAQMS during the proposed expansion.*
***PP is evaluating the various FGD technologies. Suitable Budget for implementation of FGD and NOx control will be provided in the expansion.*

4.12.15. PP has developed green belt of 33% i.e., 93.23 acres as per MoEF&CC guidelines.17000 trees planted in the plant. As advised by the committee, PP will undertake the planting of additional trees to comply with the norm of 2500 trees per Hectare. The details are given below:

Area of Greenbelt	: 93.23 Acres/37.72 Ha.
Tree Density	: 2500 trees / Ha. Or 1012 trees/ Acre
Width of Greenbelt	: 15m all along the periphery of the plant boundary
Required Saplings to be planted	: 94311 trees
Number of trees already Planted	: 17000 trees

PP will take up the balance plantation of 77311 trees during the ensuing monsoon season. PP will develop a nursery to propagate the native species and to ensure replantation wherever required.

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

4.12.17. Name of the EIA consultant: M/s B.S. Envi Tech Pvt. Ltd [Sl. No. 144, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/1922/RA 0174 valid till 16/11/2022; Rev. Rev. 21, March 30, 2022]

Certified compliance report from Regional Office

4.12.18. The Status of compliance of earlier EC was obtained from Integrated Regional Office (IRO), Vijayawada vide letter dated 28/02/2022on the basis of site visit carried out on 22/01/2022. The Action taken report regarding the partially/non-complied condition was submitted to IRO Vijaywada vide letter dated 02/03/2022. The details of the observations made by RO in the report dated 28/02/2022. IRO, Vijayawada issued closure report on 14/03/2022 on the basis of ATR submitted by PP on 11/03/2022. As per the closure report dated 14/03/2022 PP is being complied with the prescribed EC conditions.

4.12.19. M/s. Sarda Metals & Alloys Limited has earlier made an online application vide proposal no. IA/AP/IND/260192/2017 dated 17/03/2022. The proposal was considered in 3rd meeting of expert appraisal committee (Industry-1 sector) held on 11-12th April, 2022. The committee seeking additional detail for consider the case.

4.12.20. Project proponent submitted reply of ADS on 25/04/2022. The pointwise detail of ADS reply submitted by PP give as below:

ADS point no 1: Project proponent shall provide the action plan for rain water harvesting.

Reply by PP: The discharge from the hillock is directed through the existing storm water drainage system. This water will be collected in the proposed sedimentation pond in the

SW corner of the project site and pumped to the main Rain water harvesting pond which is proposed to be developed in an area of 5.71 acres having holding capacity of 3,46,875 m3 in the portion of the project area. The harvested rainwater will be used by Sarda Metals & Alloys Limited. A sedimentation tank of dimensions 125 m X 35 m X 6 m will be constructed on the SW portion of the project site to arrest the siltation of natural drainage within the project area.

ADS point no 2: AAQ modeling shall be carried out by taking in to account the impacts arising out of the material transportation and submitted.
Reply by PP: The modelling was carried using AERMOD Cloud. Predicted maximum ground level concentrations considering meteorological data of winter season superimposed on the maximum baseline concentrations obtained during the study period was used to estimate the post project scenario.

ADS point no 3: 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.
Reply by PP: revised plant layout map including contours and GW recharge calculation has been submitted by PP. total 3,46,875 m^3/year rain water harvesting in 5.71 acres area.

ADS point no 4: 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.
Reply by PP: PP submitted revised Layout plan showing the internal roads of minimum 6m width and 9m turning radius for smooth traffic flow inside including fire tender as per NBC. The road network connects all the areas in the plant.

ADS point no 5: Water balance details shall be submitted.
Reply by PP: water balance has been submitted by PP.

ADS point no 6: 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 of not less than 2500 per ha within a time frame of one year shall be submitted. This shall also include gap filling in the existing area to achieve the green belt density not less than 2500 trees per hectare. 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.

Reply by PP: PP has developed green belt of 33% i.e., 93.23 acres as per MoEFCC guidelines.17000 trees planted in the plant. As advised by the committee, PP will undertake the planting of additional trees to comply with the norm of 2500 trees per Hectare. The details are given below:

Area of Greenbelt	: 93.23 Acres/37.72 Ha.
Tree Density	: 2500 trees / Ha. Or 1012 trees/ Acre

Width of Greenbelt : 15m all along the periphery of the plant boundary
Required No. of Saplings to be planted : 94311 trees
Number of trees already Planted : 17000 trees

PP will take up the balance plantation of 77311 trees during the ensuing monsoon season. PP will develop a nursery to propagate the native species and to ensure replantation wherever required.

ADS point no 7: Additional measures to be adopted to improve the level of service of the material transportation route shall be provided.
Reply by PP: PP proposed the following additional measures to improve the level of service:

- Parking along the road side will be prohibited with No parking boards, this enhances the capacity of the road under study as the occupancy will increase.
- The street lighting, road painting, no parking boards and other sign boards will be introduced for the management.
- The Sarda metals security will also help and control the entry and exit of vehicles. Street lighting for 50 m on either side or also high mast light at the gate will illuminate the road and the drivers can maintain the speed of the vehicle as speed is an important factor for capacity enhancement.
- At the entry and exit a bell-mouth shape is provided for a quick entry and exit to prevent any queue formation near the gate and do not interrupt other straight moving vehicles.

ADS point no 8: PP shall be provided the Action taken report for noncompliance observed by IRO, Vijayawada in the observation report dated 28/02/2022.

Reply by PP: Action Taken Report submitted to IRO, Vijaywada on 11/03/2022. On basis of ATR submitted by PP IRO, Vijaywada was issued closure report on 14/03/2022. According to closure report PP is being complied with all EC conditions. Same has been updated at para no 4.12.18 above.

ADS point no 9: PP shall revise the action plan to address the issues of public consultation in Monitorable physical terms as per the Ministry O.M. dated 30/09/2020.
Reply by PP: PP has been submitted revised action plan to address the issues of public consultation**.** Same has been updated at para no 4.12.13 above.

ADS point no 10: Mitigation measures to be adopted regarding the black dust issue pointed out in the public consultation proceedings shall be submitted.
Reply by PP: PP has implemented the following measures to minimize dust pollution.

Dust Extraction System

S No	Location / Shop	Facilities
1	Raw material handling area, Material Transfer points	Dust suppression system comprising of spray nozzles, piping network, valves pumps, instrumentation and controls, electrics, water tank etc.

S No	Location / Shop	Facilities
2	Electrical Arc Furnace Gas Cleaning Plant	Dust extraction system comprising of Reverse Air Bag House type bag filter, Centrifugal fan and motor, stack
3	Ladle Furnace Gas Cleaning Plant	Dust extraction system comprising of Reverse Air Bag House type bag filter
4	Steel Melting Shop	One bag filter proposed to install to reduce fugitive emissions at steel melting area.
5	Captive Power Plant	Dust extraction system comprising of pulse jet type bag filter, Fly Ash Silo, Bottom Ash handling system, Electro Static Precipitator,120m Stack

Green Belt Development

1. Dense greenbelt in an area of 93.23 acres has been developed.
2. Tree plantation on both sides of internal roads used for transportation in order to arrest dust.
3. Miyawaki method of plantation has been done on trial basis in an area of 0.51 acres in green belt zone. 6000 trees have been planted in close vicinity. Further 1.12 acres will be developed.

Water Sprinkling

1. Water sprinkling along the haul road & dust generation points like raw material handling area etc.
2. All internal roads are laid with Bituminous Macadam

Maintenance Activities

1. Implementation of TPM in plant-Total Productivity Maintenance
2. Proper maintenance of Air Pollution Control Equipment
3. Regular maintenance of Vehicles and Machinery
4. Cabins for shovel and dumpers and dust masks to workmen
5. Good housekeeping and proper maintenance.

The following online monitoring equipment have been implemented in the existing plant for monitoring of emissions.

- Two Online Stack Monitoring System are installed at Ferro Alloys & Captive Power Plant to measure PM and PM, SO2 and NOx respectively.
- Three Continuous Ambient Air Quality Monitoring Systems (CAAQMS) are currently installed at three different locations at 120º angle to each other at the edge of the plant boundary to monitor fugitive emissions for PM2.5, PM10, SO2, NO2.
- Work Zone Air Quality Monitoring near Furnace, coal yard, loading and unloading points, and stacking areas, etc.
- Monitoring of ground water quality at plant site, dump yard, surrounding area of dump yard for pH, conductivity, total solids, suspended solids, oil and grease, metals.
- Wastewater quality and quantity from various units for pH, Temperature and TSS, with evaluation of treatment system with respect to above parameters.
- Ambient Noise Level Monitoring near the plant units, D.G sets, Plant boundary, Main gate, Loading and Unloading points, etc.
- Monitoring of solid wastes, quantity and quality

- Greenbelt plantation, maintenance, development of other forms of greenery like Avenue plantation, Miyawaki plantation.
- An automatic weather monitoring station is already installed within the plant premises for measurement of meteorological parameters

ADS point no 11: Technological details of the mineral fibre plant shall be submitted
Reply by PP: Over the last 2-3 years SMAL have collaborated with the Environmental studies Department of Peking University, China and developed a process to convert the Silico Manganese slag into mineral fiber. Hot Silico Manganese slag at 1400ºC will be sent to a specialized furnace to adjust the properties of slag.

Mineral fibre wool is a name for fiber materials that are formed by spinning or drawing molten minerals such as SiMn slag. Mineral Wool manufacturing process consists of following steps:

- Raw material charging
- Melting
- Fiberisation of the melt
- Product mat formation
- Curing
- Cooling
- Product Finishing

Material balance for mineral Fibre Plant

Raw Material Input (TPA)		**Product Out Put (TPA)**	
Si Mn Slag	1,50,000	Mineral Fiber	1,50,000

Manufacturing process involves following steps:

- Hot Si Mn slag will be charged in to Special furnace using electricity for melting.
- The molten material is drawn from tap hole which is located at the bottom of the furnace through a short trough, which is positioned exactly above the spinning machine.
- The melt falls onto the rapidly rotating wheels of the spinning machine and then it is thrown off in a fine spray producing fibers.
- Air is introduced at the back of the rotating wheels to attenuate the fibers and direct them onto the collection wheel to form a mattress.
- Binding material is then applied to the fibers by a series of spray nozzles on the spinning machine.
- Water is also sprayed which cleans the collection wheel and other parts of the plant.
- The secondary mat obtained after this process is then layered to give the required product weight per unit area.
- Thereafter, the mat passes through hot oil chamber and is heated at a temperature of about 400 0C.
- This additional heating sets the product thickness, dries the product The Product is then air cooled & cut to the required size.
- These mats are then packaged as slabs or wire mat.
- Pipe section is a product manufactured by diverting the uncured wool from the main process for reprocess for moulding & curing.

ADS point no 12: As per toposheet natural drainage appears to falling with in the project area, if it is so a robust and full proof Drainage Conservation scheme along with Soil conservation and multiple Erosion control measures should be proposed.
Reply by PP: PP has developed extensive greenbelt covering 33.18 % of the total plot area including the hill area which is acting as erosion control and conservation of soil. It is proposed to take up addition plantation of 77311 trees in the greenbelt area and landscaping of open areas which will further control in soil conservation.

ADS point no 13: PP shall provide the mitigation measures for Occupational health and safety related to dust emission from coke, coal and mineral handling areas.
Reply by PP: Mitigation measures for Occupational health and safety related to dust emission from coke, coal and mineral handling areas

Ferro Alloy Plant
The existing ferro alloy plant is having a dedicated fume extraction systems for each furnace followed by bag house to control dust emissions. Similar systems are proposed in the expansion phase.

Captive Power Plant (CPP) The following pollution control measures have been implemented in the CPP.
1. Tall stacks of 120 m
2. High Efficiency ESP to control particulate matter in flue gas
3. The entire coal stack area has been covered with high dome shed.
4. Coal Dust Extraction system has been provided in all the conveyors, closed conveyor system is implemented
5. Dust suppression system has been implemented in the coal handling plant
6. Sprinklers have been installed near coal stock yard.
7. Greenbelt in an area of 93.23 acres has been developed all along the periphery of the plant boundary
8. Provision of PPEs like Nose mask, gloves, helmet to all personnel working in coal handling and other raw material handling areas

The following measures are implemented for monitoring the health and safety of the workers
1. PPEs are given to all the employees
2. Periodic medical examination of the employees is conducted
3. Regular rotation of man power is done
4. SMAL has implemented an Occupational Health Center manned by MBBS doctor and qualified male nurses (24-hour availability)
5. Dedicated ambulance is available in the plant
6. SMAL has access to Sri Venkateshwara Hospital in Kothavalasa located at distance of 5.5 km from the site to administer the treatment in case of medical emergencies and the patient can be shifted to Visakhapatnam for further specialized treatment.
7. Occupational health and safety training is given to all employees
8. SMAL is conducting safety audits and updation of the emergency preparedness plan
9. SMAL conducts fire drills on monthly basis and Mock drills once in a quarter

The Company provides regular training to its staff on Occupational Safety and Health both during construction and operation.

SMAL is certified for ISO 9001:2015, IS14001:2015 and ISO 45001:2018 i.e., Occupational Health and Safety Management Systems. The company has provided Personal Protection Equipment to ensure safety of personnel working in the plant.

A detailed onsite and offsite emergency response plan has been prepared listing the various types of hazards which can happen at the work place and the mitigation measures, PPE required to ensure safety of personnel and zero accidents. Provision of proper ventilation systems, fume extraction systems and other pollution control equipment ensures good work place conditions.

SMAL ensures that all the employs undergo the following medical tests
Periodic Medical Examination – Yearly

- Pulmonary Function Test (PFT) – Yearly
- Audiometry Tests – Yearly
- Chest X-ray - Yearly
- Eye tests - Yearly

First aid training is imparted to the selected employees regularly. The list of first aid members will be displayed at strategic places.

4.12.21. Based on the ADS reply submitted by PP, the proposal was considered again in 4th EAC (Industry 1 Sector) meeting held on 27-28th April, 2022. The observations and recommendations of the committee is given as below:

4.12.22. During the meeting, project proponent submitted written submission on the following points:

i. PP has given undertaking that Kantakapalli, Katakapalli, Kotturu, Patta Sunkarapalem, Kotha Sunkarapalem, Gollapeta, Chinnaraopalli, Baligattam, Chiinipalem, Sambayyapalem, Appannapalem and Nimmalapalem villages will adopt to implement various CSR activities in association with District Committee. SMAL will take up 3 to 4 villages in 3 years' time period and subsequently other villages in phased manner.
ii. PP will implement the Fogging machines for control of Air borne Dust.
iii. PP will improve the house keeping to ensure effective dust control on roads and material handling areas.

Observations of the Committee

4.12.23. The EAC noted the following:

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

found it satisfactory.

iii. The Committee deliberated upon the certified compliance report of RO and action taken report submitted by PP with respect to the compliance status of the existing EC and found its satisfactory.

iv. The Committee deliberated upon the additional information submitted by the proponent and found it satisfactory.

v. PP adopted the villages Kantakapalli, Katakapalli, Kotturu, Patta Sunkarapalem, Kotha Sunkarapalem, Gollapeta, Chinnaraopalli, Baligattam, Chiinipalem, Sambayyapalem, Appannapalem and Nimmalapalem to implement various CSR activities in association with District Committee.

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

Recommendations of the Committee

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

A. Specific Condition:

i. Three tier Green Belt shall be developed in 33% of total project area by August, 2022 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. Compliance status in this regard, shall be submitted to concern Regional Office of the MoEF&CC.

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

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

iv. 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.

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

vi. Particulate matter emission from stacks shall be less than 30 mg/Nm^3.

vii. Submerged Arc Furnace shall be equipped with the fourth hole fume extraction system.

viii. 100 % slag generated from the process shall be utilized. Compliance status in this regard shall be submitted to the Regional Office of the MoEF&CC.

ix. PP shall do 3-tier green belt along the perimeter boundary of the project, surrounding coal dumping and raw material yard, besides block plantation with in the project area.
x. PP shall improve the Housekeeping of the project premises with best standards.
xi. 10 numbers of 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 and the black dust on the nearby Mango orchards of the villagers.
xii. Mechanical road sweeping shall be done in the surrounding villages also periodically.
xiii. Project proponent shall follow safeguards to control the exposure of silica dust and some formaldehyde exposures arising out during production of mineral fibers. Compliance status in this regard, shall be submitted to concern 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 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.

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

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 414 (E) dated 30th May 2008; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF) 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.
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 Kantakapalli, Katakapalli, Kotturu, Patta Sunkarapalem, Kotha Sunkarapalem, Gollapeta, Chinnaraopalli, Baligattam, Chiinipalem, Sambayyapalem, Appannapalem and Nimmalapalem 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; PM_{10}, SO_2, 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. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

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

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

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

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

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ANNEXURE –1

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

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

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

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

i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable).
ii. Land use map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha).*
iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis/à/vis the project location and the recommendations or comments of the Chief Wildlife Warden/thereon.
v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.
vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6. **Environmental Status**

i. Determination of atmospheric inversion level at the project site and site/specific micro/meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.

ii. AAQ data (except monsoon) at 8 locations for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre/dominant wind direction, population zone and sensitive receptors including reserved forests.

iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

iv. Surface water quality of nearby River (60m upstream and downstream) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.

v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC.

vi. Ground water monitoring at minimum at 8 locations shall be included.

vii. Noise levels monitoring at 8 locations within the study area.

viii. Soil Characteristic as per CPCB guidelines.

ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.

x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule/I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

xi. Socio/economic status of the study area.

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

i. Assessment of ground level concentration of pollutants from the stack emission based on site/specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.

ii. Water Quality modelling – in case, if the effluent is proposed to be discharged in to the local drain, then Water Quality Modelling study should be conducted for the drain water taking into consideration the upstream and downstream quality of water of the drain.

iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail/cum road transport or conveyor/cum/rail transport shall be examined.

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

8. **Occupational health**

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

9. **Corporate Environment Policy**
   i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
   ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
   iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
   iv. Does the company have system of reporting of non/compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
11. To address the Public Hearing issues, provisions contained under Ministry's Office Memorandum vide F.No. 22/65/2017/IA.III dated 30/09/2020 shall be complied.
12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
13. A tabular chart with index for point wise compliance of above ToRs.
14. The ToRs prescribed shall be valid for a period of three years for submission of the EIA/EMP reports along with Public Hearing Proceedings (wherever stipulated).

<u>The following general points shall be noted:</u>

   i. All documents shall be properly indexed, page numbered.
   ii. Period/date of data collection shall be clearly indicated.
   iii. Authenticated English translation of all material in Regional languages shall be provided.
   iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.
   v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA/EMP Report.
   vi. The index of the final EIA/EMP report must indicate the specific chapter and page no. of the EIA/EMP Report
   vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J/11013/41/2006/IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
   viii. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCl)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the

Consultant and the Accreditation details shall be posted on the EIA/EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.

ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA/EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA/EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district/wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA/EMP Report in a separate chapter and summarized in a tabular chart with financial budget (capital and revenue) along with time/schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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ANNEXURE/2

ADDITIONAL ToRS FOR INTEGRATED STEEL PLANT

1. Iron ore/coal linkage documents along with the status of environmental clearance of iron ore and coal mines
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact
3. For Large ISPs, a 3/D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
4. Recent land/use map based on satellite imagery. High/resolution satellite image data having 1m/5m spatial resolution like quickbird, Ikonos, IRS P/6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land/cover mapping of the area.
5. PM (PM_{10} and $P_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM_{10} to be carried over.
6. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
7. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
8. Plan for slag utilization
9. Plan for utilization of energy in off gases (coke oven, blast furnace)
10. System of coke quenching adopted with justification.
11. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
12. Trace metals in waste material especially slag.
13. Trace metals in water
14. Details of proposed layout clearly demarcating various units within the plant.
15. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
16. Details on design and manufacturing process for all the units.
17. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
18. Details on requirement of energy and water along with its source and authorization from the concerned department. Location of water intake and outfall points (with coordinates).
19. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
20. Details on toxic content (TCLP), composition and end use of slag.

ADDITIONAL ToRs FOR PELLET PLANT

1. Iron ore/coal linkage documents along with the status of environmental clearance of iron ore and coal mines
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact
3. Recent land/use map based on satellite imagery. High/resolution satellite image data having 1m/5m spatial resolution like quickbird, Ikonos, IRS P/6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land/cover mapping of the area.
4. PM(PM_{10} and $P_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM_{10} to be carried over.
5. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
6. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
7. Plan for slag utilization
8. Plan for utilization of energy in off gases (coke oven, blast furnace)
9. System of coke quenching adopted with justification.
10. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
11. Trace metals in waste material especially slag.
12. Trace metals in water

ADDITIONAL ToRs FOR CEMENT INDUSTRY

1. Limestone and coal linkage documents along with the status of environmental clearance of limestone and coal mines
2. Quantum of production of coal and limestone from coal & limestone mines and the projects they cater to;
3. Present land use shall be prepared based on satellite imagery. High/resolution satellite image data having 1m/5m spatial resolution like quickbird, Ikonos, IRS P/6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land/cover mapping of the area.
4. If the raw materials used have trace elements, an environment management plan shall also be included.
5. Plan for the implementation of the recommendations made for the cement plants in the CREP guidelines must be prepared.
6. Energy consumption per ton of clinker and cement grinding
7. Provision of waste heat recovery boiler
8. Arrangement for co/processing of hazardous waste in cement plant.
9. Trace metals in waste material especially slag.

ADDITIONAL ToRs FOR PULP AND PAPER INDUSTRY

i. A note on pulp washing system capable of handling wood pulp shall be included.
ii. Manufacturing process details for the existing and proposed plant shall be included. Chapter on Pulping & Bleaching shall include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery shall include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln
iii. Studies shall be conducted and a chapter shall be included to show that Soda pulping process can be employed for *Eucalyptus/Casuarina* to produce low kappa (bleachable) grade of pulp.
iv. Commitment that only elemental Chlorine/free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be closed within 2 years of issue of environment clearance.
v. A commitment that no extra chlorine base bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills. Plan for reduction of water consumption.

ADDITIONAL ToRs FOR LEATHER/SKIN/HIDE PROCESSING INDUSTRY

1. Justification for engaging a particular type of process (raw hide/skin into semi finishing or finished leather, semi/finished leather to finished leather, dry finishing operations, chrome/vegetable tanning, *etc.).*
2. Details regarding complete leather/ skin/ hide processing including the usage of sulphides, nitrogen compounds, chromium or other tanning agents, post/tanning chemicals, biocides, *etc.*, along with the material balance shall be provided.
3. In case of chrome tanning, details of the chrome recovery plant, management of shavings/solid waste including safe disposal.
4. Details on reuse of soak liquor / saline stream from membrane system, if applicable, to the extent possible in pickling activity after required treatment. Also, mention the salt recovery measures.

ADDITIONAL ToRs FOR COKE OVEN PLANT

1. Justification for selecting recovery/non/recovery (beehive) type batteries with the proposed unit size.
2. Details of proposed layout clearly demarcating various facilities such as coal storages, coke making, by/product recovery area,*etc* within the plant.
3. Details of coke oven plant (recovery/non/recovery type) including coal handling, coke oven battery operations, coke handling and preparation.
4. Scheme for coal changing, charging emission centre, Coke quenching technology, pushing emission control.
5. Scheme for coke oven effluent treatment plant details including scheme for meeting cyanide standard.

ADDITIONAL ToRs FOR ASBESTOS MILLING AND ASBESTOS BASED PRODUCTS

1. Type of the project – new/expansion/modernization
2. Type of fibres used (Asbestos and others) and preference of selection from techno/environmental angle should be furnished
3. As asbestos is used in several products and as the level of precautions differ from milling to usage in cement products, friction products gasketing, textiles and also differ with the process used, it is necessary to give process description and reasons for the choice for selection of process
4. Technology adopted, flow chart, process description and layout marking areas of potential environmental impacts
5. National standards and codes of practice in the use of asbestos particular to the industry should be furnished
6. In case of newly introduced technology, it should include the consequences of any failure of equipment/ technology and the product on environmental status.
7. In case of expansion project asbestos fibre to be measured at slack emission and work zone area, besides base line air quality.
8. In case of green field project asbestos fibre to be measured at ambient air.

ADDITIONAL ToRs FOR METALLURGICAL INDUSTRY (FERROUS AND NON/FERROUS)

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

Executive Summary

Executive summary of the report in about 8/10 pages incorporating the following:

i. Project name and location (Village, Dist, State, Industrial Estate (if applicable)
ii. Products and capacities. If expansion proposal, then existing products with capacities and reference to earlier EC.
iii. Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
iv. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes. Materials balance shall be presented.
v. Measures for mitigating the impact on the environment and mode of discharge or disposal.
vi. Capital cost of the project, estimated time of completion
vii. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of is acquisition, nearby (in 2/3 km.) water body, population, with in 10km other industries, forest, eco/sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)
viii. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio/economic condition of the nearby population
ix. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
x. Likely impact of the project on air, water, land, flora/fauna and nearby population
xi. Emergency preparedness plan in case of natural or in plant emergencies
xii. Issues raised during public hearing (if applicable) and response given
xiii. CSR plan with proposed expenditure.
xiv. Occupational Health Measures
xv. Post project monitoring plan

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Email: Revised draft MoM of the 4th EAC held during 27-28th April, 2022 https://email.gov.in/#10

in:inbox **Sundar Ramanathan**

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Revised draft MoM of the 4th EAC held during 27-28th April, 2022

From: chairman eac ind 1

To: Sundar Ramanathan Additional Director MoEFCC Dr R B LAL

Dear Mr. Sundar & Dr. R.B. Lal,
The draft minutes sent by you through your email dated 4th May, 2022 (6:05 PM) are approved. Kindly do the

Best Wishes
Rajive Kumar
Chairman EAC Ind-1