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

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Dated:12.09.2022

Date of Zero Draft MoM sent to EAC: 06.09.2022
Approval by Chairman:12.09.2022
Uploading on PARIVESH: 12.09.2022

MINUTES OF THE 12th EXPERT APPRAISAL COMMITTEE (INDUSTRY-1 SECTOR) MEETING HELD ON AUGUST 30-31, 2022

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

Time: **10:30 AM onwards**

AUGUST 30, 2022 [TUESDAY]

(i) Opening Remarks by the Chairman, EAC

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

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

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

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

(iii) Confirmation of the Minutes of the 11th Meeting of the EAC (Industry-1 Sector) held during August 16, 2022 at MoEF&CC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-1 Sector) members on the minutes of its **11th Meeting of the EAC (Industry-1 Sector) held during August 16, 2022** conducted through Video Conferencing (VC), and noted that no request has been received for modifications/factual correction, in the minutes of the 11th EAC meeting for the project/activities, and confirmed the same.

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

Consideration of Environmental Clearance Proposals

Agenda No. 12.1

12.1 Expansion of Eloquent Steel Pvt. Ltd. for 336,000 TPA Billet production along with Rolling Mill for production of 210,000 TPA Rolled Product, Installation of 150,000 TPA Briquette Plant, 108,000 TPA Sinter Plant and addition of Pig Iron as product from the Existing Submerged Arc Furnace by M/s Eloquent Steel Private Limited, located at Village: Nakrajoria, P.O.: Salanpur, District: Paschim Burdwan, West Bengal – Consideration of Environmental Clearance.

[Proposal No. IA/WB/IND/3184/2011; File No. J-11011/188/2011-IA.II(I)]
[Consultant: Vardan Environet; Valid upto 05.05.2023]

12.1.1 M/s. Eloquent Steel Pvt Ltd has made an online application vide proposal no. IA/WB/IND/3184/2011 dated 02.08.2022 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 S. No. 3(a) Metallurgical Industries under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

12.1.2 Name of the EIA consultant: M/s. Vardan Environet [Sl. No. 37, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0158; valid upto 05.05.2023, Rev. 24, July 05, 2022].

Details submitted by Project proponent

12.1.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
10.11.2020	Standard Terms of Reference Issued	Terms of Reference	11.11.2020	10.11.2024

12.1.4 The project of M/s Eloquent Steel Pvt Ltd. located at village: Nakrajoria, P.O.: Salanpur, District: Paschim Bardhaman, West Bengal State is for enhancement of production of MS Ingots from 106,004 to 336,000 TPA MS Billet, along with installation of Rolling Mill for production of 210,000 TPA Rolled Product, Installation of 150,000 TPA Briquette Plant, 108,000 TPA Sinter Plant and addition of Pig Iron (76,400 TPA) as product from the existing Submerged Arc Furnaces.

12.1.5 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>9.089 ha [Private Land]</td><td>Land Use: Industrial</td></tr>
<tr><td>2</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>No additional land required for the project. Land has already been acquired and under the possession of the company.</td><td>-</td></tr>
<tr><td>3</td><td>Existence of habitation & involvement of R&R, if any.</td><td>R&R is not applicable.

Study Area<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Dendua</td><td>30 metres</td><td>NE</td></tr><tr><td>Salanpur</td><td>1.4 km</td><td>SW</td></tr></table></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>A</td><td>23º 46' 43.1" N</td><td>86º 51' 37.0" E</td></tr><tr><td>B</td><td>23º 46' 40.7" N</td><td>86º 51' 38.9" E</td></tr><tr><td>C</td><td>23º 46' 36.7" N</td><td>86º 51' 41.7" E</td></tr><tr><td>D</td><td>23º 46' 37.3" N</td><td>86º 51' 49.3" E</td></tr><tr><td>E</td><td>23º 46' 30.2" N</td><td>86º 51' 49.1" E</td></tr><tr><td>F</td><td>23º 46' 28.5" N</td><td>86º 51' 33.7" E</td></tr><tr><td>G</td><td>23º 46' 31.8" N</td><td>86º 51' 33.6" E</td></tr><tr><td>H</td><td>23º 46' 35.6" N</td><td>86º 51' 33.6" E</td></tr><tr><td>I</td><td>23º 46' 40.5" N</td><td>86º 51' 35.5" E</td></tr></table></td><td>-</td></tr>
<tr><td>5</td><td>Elevation of the project site</td><td>152 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: No water bodies within the project site
Study area<table><tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr><tr><td>Barakar River</td><td>3.75</td><td>W</td></tr><tr><td>Maithon dam</td><td>4.86</td><td>NW</td></tr></table></td><td></td></tr>
<tr><td>8</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area</td><td>Nil.

Few protected forests are present in buffer zone of the project site.</td><td></td></tr>
</table>

12.1.6 The existing project has been acquired by M/s Eloquent Steel Pvt. Ltd. (ESPL) by acquiring two adjacently located Steel Plants of M/s Hira Concast Ltd. and M/s Impex Steel Ltd., with common

boundary wall in the village: Nakrajoria, P.O. Salanpur, Dist: Paschim Burdwan, West Bengal. Possession of M/s Hira Concast Ltd. was made through Auction from Official Liquidator of Hon'ble High Court, Calcutta on 01.09.2017. Possession of M/s Impex Steel Ltd was made through bidding in Auction Notice, issued by Stressed Asset Management Branch of State Bank of India, Kolkata. The unit was not in operation for about three years and was put up for auction by the authorities.

Project of M/s. Hira Concast Ltd. transferred to M/s Eloquent Steel Pvt. Ltd.	M/s Hira Concast Ltd. initially installed 2x7 Ton Induction Furnaces for production of 53,000TPA MS Ingots. Environmental Clearance (EC) for expansion of M/s Hira Concast Ltd. was granted by the Ministry of Environment, and Forest vide F. No J-11011/533/2008-IA.II(I) dated on 11.12.2008 and F.No. J-11011/49/2010-IA.II(I) dated on 03.09.2012 for total production of 27,552 TPA Ferro Manganese and 20,735 TPA Silico Manganese through 1x7.5MVA and 1x5.5MVA Submerged Arc Furnace (SAFs). **The project was transferred in the name of M/s Eloquent Steel Pvt. Ltd on 15.10.2020 vide letter no. J-11011/49/2010-IA.II(I).**
Project of M/s Impex Steel Limited transferred to M/s Eloquent Steel Pvt. Ltd.	M/s Impex Steel Limited also established for the production of 53,004 TPA MS Ingots through 2x7 Ton Induction Furnaces after obtaining NOC from WBPCB on 24.04.2006. PP has obtained EC for expansion from MoEF&CC for the production of 17,076 TPA Ferro-manganese and 11,394TPA Silico Manganese through SAF of capacity 2x7.5MVA vide F.No: J-11011/183/2008-IA.II(I) on 28.07.2008. Later on, the PP further obtained EC from MoEF&CC for production of 31,500 TPA Ferro-manganese or 22,500TPA Silico-manganese or 9,000TPA Ferro-silicon by installation of additional 2x7.5MVA SAFs and 300TPD Sinter Plant for production of 90,000TPA Mn Ore sinter vide F.No.: J11011/188/2011-IA.II(I) on 20.09.2012. However, these additional facilities are not installed till date in the plant premises. West Bengal Pollution Control Board (WBPCB) awarded Consent to Establish (CTE) and Consent to Operate (CTO) time to time. **The project was transferred in the name of M/s Eloquent Steel Pvt. Ltd on 15.10.2020 vide F.No. 11011/188/2011-IA.II(I).**

The CTO is issued by WBPCB vide memo no. 1534-WPBA/ Red (Bwn)/ Cont (591)/08 dated 28.06.2018 to the M/s ESPL for production of 53,000 TPA MS Ingot, 27,552 TPA Fe-Mn and 20,736 TPA Si-Mn, is valid till 30.04.2023 for the units which were formally under M/s Hira Concast Limited. Another CTO is issued by WBPCB vide memo no. 1530-WPBA/Red(Bwn)/Cont(581)/07 dated 28.06.18 to the M/s ESPL for production of 53,004 TPA MS Ingot, 31,500 TPA Fe-Mn and 22,500 TPA Si-Mn, is valid till 30.06.2023 for the units which were formally under M/s Impex Steel Ltd.

12.1.7 Implementation status of the existing EC:

S. No.	Facilities	Units	As per EC	Implementation Status as on date	Production as per CTO

1.	Induction Furnace	2x 7 Tons	As per EC dated 03.09.2012 in name of Hira Concast Limited, transferred in name of Eloquent Steel on 15.10.2020	Implemented	53,000 MS Ingots
2.	Submerged Arc Furnace	1x7.5 MVA + 1x5.5 MVA		Implemented	Fe-Mn. 27,555 TPA Si-Mn 20,735 TPA
3.	Submerged Arc Furnace	4x7.5 MVA	As per EC dated 20.09.2012 in name of Impex Steel Limited, transferred in name of Eloquent Steel on 15.10.2020	Implemented 2x7.5 MVA	Fe-Mn 31,500 TPA Si-Mn 22,500 TPA
4.	Induction Furnace	2x 7 Tons		Implemented	53004 TPA MS Ingots
5.	Sinter Plant	300 TPD		Non-Implemented	--

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

S.No.	Plant Equipment/ Facility	Existing facilities as per EC dated 28.07.2008, 11.12.2008, 03.09.2012 and 20.09.2012								Proposed Units		Final (Existing + Proposed)		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	
1	Steel Melting Shop -1 (Induction Furnace)	4x7 Ton	106004 TPA MS Ingots	4x7 Ton	106004 TPA MS Ingots	--	--	4x7 Ton	106004 TPA MS Ingots	Modification of existing 4x7 Ton IF to 4x8 Ton + Installation of 2x8 Ton IF with LRF (1x8T) and 1x4/7m CCM	164,500	6x8 Ton Induction Furnace with 1x8 Ton LRF and 2x4/7 m CCM	336,000 Billets	--
		--	--	--	--	--	--	--	--	Installation of 2x25 Ton IF with 1x25 Ton LRF and 3x6/11m CCM	171,500	2x25 Ton IF with 1x25 Ton LRF and 3x6/11m CCM		
2	Ferro-Alloy Plant with metal recovery Plant	5x7.5 MVA + 1x5.5 MVA	Fe-Mn 76,131 Si-Mn 54,629 Fe-Si 9000	3x7.5 MVA + 1x5.5 MVA	Fe-Mn 59,052 Si-Mn 43,235	2x7.5 MVA	Fe-Mn 17,079 Si-Mn 11,394 Fe-Si 9,000	3x7.5 MVA + 1x5.5 MVA	Fe-Mn 59052 Si-Mn 43,235	Proposed for addition of Pig Iron production without adding any	Pig Iron-76400	3x7.5 MVA + 1x5.5 MVA SAF	Fe-Mn-59,052, or Si. Mn-43,236, or Fe Si – 22,680, or	--

S.No.	Plant Equipment/ Facility	Existing facilities as per EC dated 28.07.2008, 11.12.2008, 03.09.2012 and 20.09.2012								Proposed Units		Final (Existing + Proposed)		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	
	(Submerged Arc Furnace)									additional facilities		with metal recovery Plant	High Carbon Ferro Chrome – 59,052, or Ferro Silico Chrome – 33,480, or Pig Iron- 76,400, or in combination of any	
3.	Rolling Mill	--	--	--	--	--	--	--	--	600 TPD	2,10,000 Rolled Products (TMT Bar, MS Round & Wire Rod)	600TPD	210,000 Rolled Products (TMT Bar, MS Round & Wire Rod)	-
4.	Reheating Furnace	--	--	--	--	--	--	--	--	1 x 25 TPH	--	1 x 25 TPH	--	--

S.No.	Plant Equipment/ Facility	Existing facilities as per EC dated 28.07.2008, 11.12.2008, 03.09.2012 and 20.09.2012								Proposed Units		Final (Existing + Proposed)		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	
5.	Sinter Plant	300 TPD	--	--	--	300 TPD	--	--	--	1x300 TPD	108,000	1x300 TPD	108,000	--
6.	Briquette Plant	--	--	--	--	--	--	--	--	1x 25 TPH	150,000	1x 25 TPH	150,000	--

12.1.9 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	Existing (TPA)	Total after proposed expansion (TPA)	Source	Distance from Source	Mode of Transport
A	**Ferro Division**					
A-01	Manganese ore	1,44,914	1,44,914	World Metals and Alloys, UAE Kolkata Port to Plant	322 km	Ship & Road
A-02	Coke	33,955	33,955	Vivan Overseas, Assam	905 km	By Road
A-03	Coke Breeze	-	8,640	Jai Maa Gayatri Enterprises, Dhanbad	58 km	By Road
A-04	Steam coal	-	16,810	Open Market	20 km	By Road
A-05	Charcoal	6,700	6,700	G.M Coke Industries, Assam	890 km	By Road
A-06	Quartzite	40,030	42,190	Durga Enterprises	267 km	By Road
A-07	Dolomite	5,188	15,988	Ma Bhuwneswari Traders, WB	552 km	By Road
A-08	Limestone	-	28296	Odisha	500 km	Rail
A-09	Electrode paste	1,675	1,675	Hindalco Industries Ltd., Karnataka	2052 km	Road
A-10	Mill Scales	8,618	21,545	In-house	-	-
A-11	Chrome ore	19,840	19,840	Imported/Odisha	322km /450 km	Ship &Road/ Road
A-12	Magnesite	2,953	2,953	Imported	322km	Ship &Road
A-13	Iron ore Fines	-	70,200	Bravo Sponge Iron Pvt Ltd., Purulia	57 km	Road
A-14	Ferro Chrome Chips	18,748	18,748	Imported/ Odisha	322km /450 km	Ship &Road/ Road
A-15	Chrome Ore Fines	--	1,62,360	Imported/ Odisha	322km /450 km	Ship &Road/ Road
A-16	Fe Mn Slag	12,971	12,971	In-house	--	--

Sl. No.	Raw Material	Existing (TPA)	Total after proposed expansion (TPA)	Source	Distance from Source	Mode of Transport
A-17	Hydrated Lime	-	4,950	Shree Ram Chemical Works, WB	10km	Road
A-18	Molasses	-	7,920	Uttam Sugar Mills Limited, Uttarakhand	1483km	By Road
	Sub Total of "A"	**295592**	**620655**			
B	**Steel Division**					
B-01	Sponge iron	94,325	300,125	Shakambhari Ispat & Power Ltd., Purulia, WB	27km	Road
B-02	Pig Iron	20,644	65,684	Jai Balaji Industries Ltd..,WB	72km	Road
B-03	Scrap	13,615	43,326	Tata Steel Ltd., Jamshedpur	167 km	Road
B-04	Ferro Alloys	1,294	4,116	In-house	--	Conveyor
	Sub Total of "B"	**129,878**	**413,251**			
Total		**425,470**	**10,33,906**			

12.1.10 Existing water requirement is 640 KLD. The water requirement for the proposed project is estimated as 1970 KLD. ESPL has an agreement dated 29.09.2021 with Damodar Valley Corporation (DVC) for the supply of 2240 KLD (0.49MGD) of raw water from Maithon Reservoir.

12.1.11 Existing power requirement of 30 MW is obtained from the Damodar Valley Corporation (DVR). Power requirement for the proposed expansion is estimated as additional 34 MW. Thus total of 64 MW shall also be obtained from DVC.

12.1.12 Baseline Environmental Studies:

Period	1st December 2019 to 29th February 2020
AAQ parameters at 8 Locations (min and max)	• $PM_{2.5}$: 16.1 to 52.9 μg/m^3 • PM_{10}: 32.2 to 86.7μg/m^3 • SO_2: 8.2 to 29.9 μg/m^3 • NO_2: 10.8 to 39.4 μg/m^3 • CO: 0.36 to 1.09 mg/m^3

<table>
<tr><th>Period</th><th>1st December 2019 to 29th February 2020</th></tr>
<tr><td>Incremental GLC level</td><td>

$PM_{2.5}$: 1.661µg/m^3 (0.6 km from Project site in South direction)
PM_{10}: 4.993 µg/m^3 (0.6 km from Project site in South direction)
SO_2: 0.706µg/m^3 (0.6 km from Project site in South direction)
NO_2: 1.494µg/m^3 (0.6 km from Project site in South direction)
CO: 0.4310 mg/m^3 (0.6 km from Project site in South direction)

(All incremental values are maximum at Digari village which is at a distance of 0.6 km from Project site in South direction)
</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>pH – 7.15 to 8.22, Total Hardness – 128.0 to 250.0 mg/l, Chlorides – 53.8 to 97.42 mg/l, Fluoride – 0.22 to 0.48 mg/l, Zinc – 0.39 to 1.42 mg/l, TDS – 342 to 468 mg/l, Fe – 0.20 to 0.34 mg/l</td></tr>
<tr><td>Surface water quality at 8 locations</td><td>pH - 7.36 to 7.72, DO – 4.99 to 6.2 mg/l, BOD – 6.0 to 13.0 mg/l, COD – 18.0 to 41.0 mg/l, TSS – 68.0 to 121.0 mg/l</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>45.1 to 67.5 dB(A) for day time and 34.9 to 56.2 dB(A) for night time</td></tr>
<tr><td>Traffic assessment study findings</td><td>

Traffic study has been conducted at a. Kalyaneshwari to Dendua Road (KD Road) having 5.5m width and connecting NH-19 & SH-15 to the project site. SH-15 (Asansol-Chittaranjan) Road is at 0.91km and NH-19 (Delhi-Kolkata) Road is at 4.64km from the project site.
Transportation of Raw material, Fuel and Finished product will be done by 86% (approx.) by Road
Existing PCU is 1616 PCU/Day for Kalyaneshwari Dendua Road, 3685.5 PCU/day on SH-15 and 4502.5 PCU/day on NH-19 and existing level of service (LOS) is:

<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>Kalyaneshwari Dendua Road</td><td>1616.0</td><td>6000</td><td>0.270</td><td>B</td></tr>
<tr><td>SH-15</td><td>3685.5</td><td>15000</td><td>0.24</td><td>B</td></tr>
<tr><td>NH-19</td><td>4502.5</td><td>15000</td><td>0.30</td><td>B</td></tr>
</table>

PCU load after proposed project will be 1937 PCU/Day (Existing 1616 + 321) for Kalyaneshwari Dendua Road, 3846 PCU/day (Existing 3685.5 + Addl. 160.5) for SH-15 and 4663.0 PCU/day (Existing 4502.5 + Addl. 160.5) for NH-19 and level of service (LOS) will be;

<table>
<tr><th>Road</th><th>Volume</th><th>Capacity</th><th>V/C ratio</th><th>LOS</th></tr>
<tr><td>Kalyaneshwari Dendua Road</td><td>1937.0</td><td>6000</td><td>0.32</td><td>B</td></tr>
<tr><td>SH-15</td><td>3846.0</td><td>15000</td><td>0.26</td><td>B</td></tr>
</table>
</td></tr>
</table>

Period	1st December 2019 to 29th February 2020				
	NH-19	4663.0	15000	0.31	B
	Conclusion: Level of Service will be "B" i.e. Very Good for Kalyaneshwari Dendua Road, SH-15 and NH-19 including additional traffic due to proposed project. *Note: Capacity as per IRC 64:1990 Guideline for capacity for roads in Rural Areas.*				
Flora and fauna	There is no Schedule-1 Species of Flora and Fauna in the study area				

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

Type of Waste	Source	Quantity generated (Total) in Tons (TPA)	Mode of Treatment	Disposal	Remarks
		Total After Expansion			
Slag	Induction Furnace	58,310	Metal recovery of slag	After metal recovery (approx. 12%), from slag crusher (MRP) remaining slag shall be used as aggregates	MoU with Maithan Steel
Bag Filter Dust	Induction Furnace bag filter	12,005	Reused	Shall be used in Sinter Plant	--
Scales	Billet Caster/ CCM	2,100	Reused	Shall be used for production of Fe-Si or Fe-Si-Cr. or will be used in Sinter Plant	--
End Cut / Scrap	CCM	4900	Reused	Will be reused in Induction Furnace	--
Mill scale from Rolling Mill	Rolling Mill	3150	Reused	Will be used for production of Fe-Si or Fe-Si-Cr. or will be used in Sinter Plant	

Type of Waste	Source	Quantity generated (Total) in Tons (TPA)	Mode of Treatment	Disposal	Remarks
		Total After Expansion			
End Cut / Cobbles	Rolling Mill	5,250	Reused	Will be reused in Induction furnace as return scrap	--
Fe-Mn Slag	Submerged Arc Furnace	59,052 or	Reused	Will be used for production of Si-Mn	--
Si-Mn Slag	Submerged Arc Furnace	36,750 or	It is Non-hazardous. No treatment required	Shall be used for road construction or filling of low-lying area	MoU with Maithan Steel
Fe-Cr. Slag	Submerged Arc Furnace	53,147 or	Metal recovery of slag & TCLP Test	After chrome recovery, the tailing material will be used as stone chips (8 to 25 mm) & land filling purpose (0 to 8 mm).	MoU with Maithan Steel
Fe-Si. Slag	Submerged Arc Furnace	1,134 or	It is non-hazardous. No treatment required	Shall be used for cement industries as a raw material & used for medium carbon silico manganese production purpose	--
Fe-Si-Cr	Submerged Arc Furnace	1,674 or	TCLP test will be conducted	Will be used for cement industries as a raw material as well as for construction and Road filling material	--
Pig Iron Slag	Submerged Arc Furnace	38,200 (max.) or in any combination, not exceeding 59,052 TPA	It is Non-hazardous. No	Will be used for cement industries as a raw material	--

Type of Waste	Source	Quantity generated (Total) in Tons (TPA)	Mode of Treatment	Disposal	Remarks
		Total After Expansion			
			treatment required		
Bag Filter Dust	Submerged Arc Furnace	1,358	Reused	Ferro-chrome dust will be used in Briquette Plant. Fe-Mn & Fe-Si dust will be used in Sinter plant	--
Dust from Pollution Control system of Sinter Plant	Sinter Plant	5,940	Reused	Shall be recycled	--
Dust from Pollution Control system of Briquette Plant	Briquette Plant	8,250	Reused	Shall be recycled	--
Hazardous Waste Management: Generation of 'Used Oil' after the proposed expansion shall be approx. 6.5 kiloliters per annum from the use of HSD in DG Set, LSHS as fuel in Reheating Furnace and in Briquetting Plant. Used oil will be collected in dedicated drums and stored on impervious concrete floor with bund wall along with oil collection system for maximum 90 days before disposal and will be sold to the registered recyclers.					

12.1.14 Public Consultation:

Details of advertisement given	09.09.2021
Date of public consultation	03.11.2021
Venue	Nandanik Hall of Salanpur Block Office, Rupnarayanpur Station Road, Dabour More, District- Paschim Bardhaman, West Bengal.
Presiding Officer	Additional District Magistrate, Paschim Bardhman, West Bengal.
Major issues raised	Employment, Pollution, Development of School in surrounding areas, Development of Roads in surrounding areas.

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

S. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1st Year	2nd Year	3rd Year	
1	Establishment of Mechanical Tool Training Centre at Eloquent Steel Pvt Ltd. at Village: NakraJoria, P.O.: Salanpur, District: Paschim Burdwan, West Bengal	Construction of Mechanical Tool Room	10,00,000	--	--	50,00,000
		Establishing Mechanical Tool Room by procuring Lathe M/cs, Shaping M/c, Drill M/c and Welding M/c	--	20,00,000	20,00,000	
2.	Procurement Water Tanker for water sprinkling on road.	Purchase of 2 No. of water tanker having water sprinkling system which will sprinkle water on the Kalyaneshwari Dendua road on daily basis as per requirement.	12,00,000	12,00,000	--	24,00,000
3	Village Road Maintenance at Nakrajoria	Road maintenance shall be done at Nakrajoria village of Dendua Village Panchayat	2,00,000	2,00,000	2,00,000	6,00,000
4.	Avenue plantation in vacant area available in surrounding villages under social forestry	Plantation of 2000 trees at available area in the Government Schools, Panchayat Office, govt. hospitals, community centers etc in village: Nakrajoria, ***No. of Plants***: 2000	--	10,00,000	--	10,00,000
5.	**Socio-economic development in Dendua Village Panchayat**					
i	Renovation of Primary School in Nakrajoria village of Dendua Village Panchayat with necessary infrastructure development for quality education.	Civil & Construction work for Class Room, providing necessary furniture, development of playground, and Painting/Coloring of building	10,00,000	--	--	**24,50,000**
		Providing Sports Material, computers and white boards and library materials.	--	5,00,000	--	
		Providing relevant Cupboards, Furniture, Computer sets and relevant accessories	--	--	5,00,000	
		Distribution of study materials to needy students.	1,00,000	1,00,000	1,00,000	

S. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1st Year	2nd Year	3rd Year	
		Offering scholarship to meritorious students	50,000	50,000	50,000	
ii	Providing dedicated Ambulance to meet any health emergency situation in Dendua & Nakrajoria villages.	Providing Ambulance and equipments & machineries of Ambulance	--	--	12,00,000	12,00,000
iii	Installation of 5 Hand pumps at different location in Nakrajoria village under Dendua village panchayat.	Installation of 5 Hand pumps at different location Nakrajoria village under Dendua village panchayat.	40,000	40,000	20,000	1,00,000
iv	3 Water Purification unit at Primary school, Govt Hospital, Panchayat office, etc in Dendua village panchayat area.	3 Water Purification unit at Primary school, Panchayat office, etc. in Dendua Village Panchayat area.	50,000	50,000	50,000	1,50,000
v	Drainage system for sanitation in the village Nakrajoria of Dendua Village Panchayat	Roadside and street drain shall be made for sanitation in the village Nakrajoria of Dendua Village Panchayat	2,00,000	2,00,000	2,00,000	6,00,000
vi	Installation of 20 Solar powered Street Lights in Dendua Village Panchayat area.	Installation of 20 Solar street lights in Nakrajoria village of Dendua village panchayat.	--	4,00,000	4,00,000	8,00,000
vii	Renovation of Pond located at Nakrajoria Village and in Dendua Village panchayat area	Renovation/beautification of village pond along with making bathing ghat at Nakrajoria Village and in Dendua Village panchayat area to facilitate natural ground water recharge.	5,00,000	5,00,000	5,00,000	15,00,000
Viii	Construction of Separate Toilet for girls and boys in the Primary School	Construction of Separate Toilet for girls and boys in the Primary School of Nakrajoria village.	4,00,000	--	--	4,00,000

S. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1st Year	2nd Year	3rd Year	
ix	Plantation of trees along the Kalyaneshwari Dendua road to act as barrier for the dust arising from the movement of heavy vehicles on road and enhance the green cover	Plantation of 500 number of plants on each side of road covering 1.5km stretch	5,00,000	--	--	18,00,000
		Plantation of 1500 number of plants on each side of road covering remaining 3.84 km stretch	--	13,00,000	--	
Grand Total in Rs.			**52,40,000**	**75,40,000**	**52,20,000**	**1,80,00,000**

12.1.15 The Existing Capital cost of project was Rs. 83.62 Crores. The capital cost of the proposed project is Rs. 120.0 Crores and the capital cost for environmental protection measures is proposed as Rs. 2.769 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 0.4741 Crores. The employment generation from the proposed expansion is 400. The details of cost for environmental protection measures are as follows:

Sl. No.	Environmental Protection Measures	Proposed Rs. in Lakhs	
		Capital Cost	Recurring Cost
1	Air Pollution Control / Noise Management	110.0	15.5
2	Water Pollution Control Measures	45.0	3.0
3	Storage and Solid Waste Management	7.0	1.0
4.	Environment Monitoring Program	80.0	14.71
5.	Occupational Health & Safety	17.5	10.0
6.	Rain Water Harvesting	15.0	1.0
7.	Greenbelt Development	2.40	2.2
8.	Addressal of Public Consultation Concern	97.0	-
Total		**373.9**	**47.41**

12.1.16 Existing green belt has been developed in 3.0 Ha, area which is about 33% of the total project area of 9.089 ha with total sapling of 7150 trees. Total no. of 600 saplings of local and native species will be planted in 1 year for gap filling so as to increase the tree density to 2500 trees/ha. M/s Eloquent Steel Pvt Ltd will be carrying out plantation drives each and every year in monsoon season for gap filling and maintenance in order to maintain a good survival rate. PP has earmarked a recurring budget of Rs. 2.20 lakhs per year for this purpose. Undertaking for the same vide letter dated 30.08.2022 has been submitted.

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

Certified Compliance Report from Regional Office

12.1.18 The status of compliance of earlier ECs was obtained from Regional Office, MoEFCC, Kolkata vide letter no. 102-455/12/EPE/269 and Corrigendum letter no. 102-455/12/EPE/273, dated 17/06/2022 and 24/06/2022, respectively, in the name of M/s. Eloquent Steel Pvt. Ltd. The Action taken report regarding the partially complied condition was submitted to IRO MoEF&CC, Kolkata vide letter no. ESPL/SMC/ATR/RO-MoEF/July/2022 dated 04.07.2022. MoEF&CC (IRO), Kolkata evaluated the same and has issued letter dated 13.07.2022. The details of the observations made by IRO in the report dated 13.07.2022 along with its re-assessment/ present status as furnished by the PP is given as below:

S. No.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by IRO/ Response by PP
			EC date	Specific	General	
1	It was observed that ambient air quality monitoring has been done at four locations, however the parameters O_3, Pb, CO, NH_3, C_6H_6, BAP, As and Ni are only monitored at one location. PAs to monitor O3, Pb, CO, NH3, C6H6, BAP, As, Ni as mentioned in GSR No. 826 (E) dated 16th November, 2009 for the other three location: common entrance for Hire Concast and Impex Steel Ltd., near DVC Meter Room (back site of the plant), Dendua village(1km distance from the plant).	In view of the information furnished by PP and as per site observations noted above w.r.t. said site visit, the stipulated condition is considered as **partly complied** till PAs monitor O_3, Pb, CO, NH_3, C_6H_6, BAP, As, Ni as mentioned in GSR No. 826 (E) dated 16th November, 2009 for the other three location: common entrance for Hira Concast and Impex Steel Ltd., near DVC Meter Room (back site of the plant), Dendua village (1km distance from the plant).	J-11011/49/2010-IA.II(I) 03.09.2012	(iii)	-	As per information provided, it is observed that Ambient Air Quality Monitoring (O_3, Pb, CO, NH_3, C_6H_6, BAP, As, Ni level) have been carried out by NABL accredited laboratory at common entrance for Hira Concast and Impex Steel Ltd., near DVC Meter Room (back side of the plant), Dendua village (1km distance from the plant). The levels are below the stipulated standard. **Being Complied.**
2	As per the condition PAs need to monitor groundwater and submit the report to the Regional Office. Further, PAs also need to conduct leachate study for the effluent generated and report to be submitted to the Regional Office.	In view of the information furnished by PP, it is clear that Stipulated condition is considered as **partly complied** till PAs monitor groundwater and submit the report to the Regional Office. Further, PAs also need to conduct leachate study for the effluent	J-11011/49/2010-IA.II(I) 03.09.2012	(v)	-	As per information provided, it is observed that ground water monitoring has been carried out by PAs using sample form hand pump at village Nakrajoria and results are within the acceptable limit as per IS: 10500:2012. Further, it is that Leachate study has been conducted by PAs from soil sample collected

S. No.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by IRO/ Response by PP
			EC date	Specific	General	
		generated and report to be submitted to the Regional Office.				from different locations of the plant area. It has been informed that main source of effluent generation is the cooling tower blow down and backwash of Softener Plant, wherein the main issues of the effluent are pH and TDS and do not contain any sludge. Effluent generated from these sources taken into pucca tank designated for effluent collection. It was further informed that, TDS in such effluent is normally much below the prescribed limit and pH value also being maintained within the prescribed limit of 6.5 to 8.5. This effluent stored in pucca tank are utilized in slag quenching, metal recovery plant and dust suppression as per requirement. **Being Complied**
3	As per the condition there must be at least four quality monitoring stations established in consultation with the WBPCB, PAs has conducted ambient air quality monitoring at three locations, so PAs need to conduct AAQ monitoring in another one additional location.	In view of the information furnished by PP and as per site observations noted above w.r.t. said site visit, the stipulated condition is considered as **partly complied** till PAs conduct AAQ monitoring in another one additional location.	J-11011/183/2008-IA-II 28.07.2008	-	iii	From the information provided, it is observed that Ambient Air Quality monitoring has been carried out for additional 01 location (Near Temple beside Plant Boundary) by PAs. Ambient air quality data is within the stipulated standard. **Being Complied**

Written representations:

12.1.19 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 30.08.2022 through email dated 30.08.2022 submitted the following information w.r.t. to the following:

S. No.	Observations	Reply by PP
1	To Increase the budget allocated to address the concerns raised during public hearing and to adopt the nearby village Dendua for its development	Total budget to address the issues raised during the public hearing is increased from Rs. 0.97 Crores to Rs. 1.80 crores (which is 1.5% of the project cost). In adaption of peripheral development this amount will primarily be utilized for the development of Nakrajoria village under Dendua village panchayat in which village the plant of Eloquent Steel Pvt. Ltd. is situated. Revised Action Plan is updated at para 12.1.14 above.
2	Industry should consider reduction in the water requirement, show the utilization of rain water and submit the revised water balance considered losses in the process. Also, capacity of the Effluent Treatment Plant (ETP) should be mentioned	Revised water balance reducing the makeup water requirement from 2140 KLD to 1970 KLD is submitted by the Project Proponent. The same is updated at para 12.1.10 above. Waste water generated from Rolling Mill Division shall be 80 KLD and it will be treated through Effluent Treatment Plant (ETP) of 100 KLD capacity.
3	To perform an additional modelling for Carbon Monoxide emissions.	Report for the air modelling for CO performed using AERMOD Software is submitted by the Project proponent. The same is updated at para 12.1.12 above.
4	Project proponent should have a plan for Continuous greenbelt development within the plant premises year on year	M/s Eloquent Steel Pvt Ltd will be carrying out plantation drives each and every year in monsoon season for gap filling and maintenance in order to maintain a good survival rate. PP has earmarked a recurring budget of Rs. 2.20 lakhs per year for this purpose. Undertaking for the same vide letter dated 30.08.2022 has been submitted**.** The same is updated at para 12.1.16 above.
5	Project proponent should explore the possibility of treatment of domestic effluent is Sewage Treatment Plant (STP) instead of Septic Tank and Soak Pit.	15KLD of Domestic waste estimated to be generated through different domestic activities, shall be taken to individual septic tanks followed by soaking pits. In the septic tank domestic waste/sewage water is treated through biological process under anaerobic condition and treated water then passed to soak pit for further treatment. The existing project of Eloquent Steel Pvt. Limited (formerly Hira Concast Ltd. & Impex Steel Ltd.) has been recently acquired. PP assures that suitable measures shall be adopted for sewage water handling to ensure no contamination of any kind of water body will be done. In this context, EAC has recommended to install STP instead of Septic Tank.

Deliberations by the Committee

12.1.20 The Committee noted the following:

1. The instant proposal is for enhancement of production of MS Ingots from 106,004 to 336,000 TPA MS Billet, along with installation of Rolling Mill for production of 210,000 TPA Rolled Product, Installation of 150,000 TPA Briquette Plant, 108,000 TPA Sinter Plant and addition of Pig Iron (76,400 TPA) as product from the existing Submerged Arc Furnaces.

2. The existing project has been acquired by M/s Eloquent Steel Pvt. Ltd. (ESPL) by acquiring two adjacently located Steel Plants of M/s Hira Concast Ltd. and M/s Impex Steel Ltd. EC of M/s Hira Concast Ltd. was transferred in the name of M/s Eloquent Steel Pvt. Ltd on 15.10.2020 vide J-11011/49/2010-IA.II(I) and EC of M/s Impex Steel Ltd. was transferred in the name of M/s Eloquent Steel Pvt. Ltd on 15.10.2020 vide F.No. 11011/188/2011-IA.II(I).

3. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

4. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

5. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

6. The total project area is 9.089 ha which is a private land. No additional land required for the project. Land has already been acquired and under the possession of the company.

7. Dendua (0.03 Km) and Salanpur (1.4 Km) villages are in the vicinity of the project site.

8. The water requirement is estimated to be 1970 KLD which will be sourced from Maithon Reservoir.

9. Barakar river and Maithon Dam exists adjacent to the project site. The water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.

10. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.

11. PP reported that existing green belt has been developed in 3.0 Ha, area which is about 33% of the total project area of 9.089ha with total sapling of 7150 trees. Total no. of 600 saplings of local and native species will be planted in 1 year for gap filling so as to increase

the tree density to 2500 trees/ha. The Committee deliberated on the action plan and budget allocation for green belt development and found it satisfactory.

12. The Committee deliberated upon the certified compliance report of IRO and its ATR and found it satisfactory.

13. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.

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

15. The Committee also deliberated on the written submission of PP on the issues raised by EAC during meeting and found it satisfactory.

16. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

17. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

18. The EAC noted that there is typing error in the EIA/EMP Report w.r.t. STP and advised the Consultant [M/s. Vardan Environet] to read the Report before uploading on Parivesh Portal as the whole process is online. In this context, the Consultant, vide email dated 31.08.2022, submitted that at page 141 in EIA report it is mistakenly typed as STP. The Consultant will make sure that these typographical errors are not repeated again in any further documents. The EAC deliberated the same.

Recommendations of the Committee:

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

A. Specific Condition:

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

recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

iii. Barakar river and Maithon Dam exists adjacent to the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

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

v. Solid waste utilization
   a. PP shall install a fly ash brick making plant.
   b. PP shall recycle/reuse 100 % solid waste generated in the plant.
   c. Used refractories shall be recycled as far as possible.

vi. Particulate matter emission from stacks shall be less than 30 mg/Nm^3. Action plan in this regard shall be strictly implemented.

vii. 85-90 % rolling shall be done by direct hot charging. Balance 10-15 % may be done through RHF using LDO as fuel.

viii. The water requirement of 2140 KLD will be sourced from Maithon Reservoir. GW abstraction is not permitted.

ix. The PP shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.

x. Dendua (0.03 Km) and Salanpur (1.4 Km) villages are in the vicinity of the project site. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The PP shall also include the these locations in its environmental monitoring programme.

xi. As committed by the PP to adopt Nakrajoria Village under Dendua Village Panchayat, project proponent shall prepare and implement a robust plan to develop them into model villages in next 10 years.

xii. SAFs shall have 4^{th} hole extraction system for fume pollution control.

xiii. Fe-Cr slag shall be subjected to TCLP to finalize if it could be used for construction or should be sent to TSDF.

xiv. Briquetting and Jigging plant shall be installed in Ferro Alloys Plant.

xv. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

xvi. Three tier Green Belt shall be developed in at least 33% in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

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

xviii. The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant of required capacity. As committed, suitable measures shall be adopted for sewage water handling to ensure no contamination of any kind of water body.

xix. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have provision of garland drains and catch pits to trap run off material. Action plan submitted in the EIA/EMP Report shall be strictly implemented.

xx. No parking on road side for any vehicle pertaining to the plant. Proper arrangement for vehicle parking within the plant will be made.

xxi. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

xxii. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

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

B. General Conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

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

v. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.

vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.

vii. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.

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

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

iv. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.

v. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

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

VII. Green Belt

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

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
ii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.
iii. The Unit is using quartzite and coke and sought EC for expansion for alloy production. Therefore, the industry is recommended to measure silica and coal dust exposures using personal and area air samplers in process plants and to be compared with Permissible exposure limits as per Indian Factories Act, 1948. Report to be submitted to the IRO, MoEFCC.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any

infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

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

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be

carried out and spent in next three years, in the company web site for the information to public/public domain.

x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

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

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

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

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

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

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Agenda No. 12.2

12.2 Setting of 3.2 MTPA Pellet Plant (PP) and 3.6 MTPA Pellet feed cum Beneficiation Plant (BP) by M/s. Resources Pellets Concentrates Private Limited (RPCL), located at Somalapura Village, Sandur Taluk, Bellary District, Karnataka - Consideration of Environmental Clearance.

[Proposal No.: IA/KA/IND/225778/2021; File No. J- 11011/39/2021-IA I)]
[Consultant; MECON LIMITED; valid upto 09.02.2023]

12.2.1 M/s. Resource Pellets & Concentrate Pvt Ltd (RPCL) has made an online application vide proposal no. IA/KA/IND/225778/2021 Dated 18.08.2022 along with copy of EIA/EMP report and Form – 2 seeking Environment Clearance (EC) under the provision of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous) and 2(b) Mineral Beneficiation under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

12.2.2 Name of the EIA consultant: M/s. Mecon Limited [Sl. No. 49, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0195; valid upto 09.02.2023, Rev. 24, July 05, 2022].

Details submitted by the project proponent

12.2.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
29.01.2021	30th Meeting of the EAC (Industry-1) held on 10th – 11th Feb. 2021.	Terms of Reference in the name of M/s. Resource Concentrates Private Limited (RCPL)	26.02.2021	25.02.2025
13.10.2021	-	Transfer of ToR from M/s. Resource Concentrates Private Limited (RCPL) to M/s. Resource Pellets & Concentrate Pvt Ltd (RPCL)	27.10.2021	
22.12.2021	51st Meeting of the Re-constituted Expert Appraisal Committee (Industry-1) held on 11th – 12th Jan. 2022.	Amendment in ToR in the name of M/s. Resource Concentrates Private Limited (RCPL)	27.01.2022	
04.02.2022	Application for name transfer dated 04.02.2022	Corrigendum in ToR Amendment letter dated 27.01.2022 w.r.t. change in name from M/s. Resource Concentrates Private Limited (RCPL) to M/s. Resource Pellets & Concentrate Pvt Ltd (RPCL)	14.03.3022	

12.2.4 The project of M/s. Resource Pellets & Concentrate Pvt. Ltd (RPCL) located in Somalapura Village, Sandur Tehsil, Bellary District, Karnataka is for setting up of a new Pellet and Pellet cum Beneficiation plant for production of 3.2 MTPA Pellets and 3.6 MTPA pellet feed cum Beneficiation plant.

12.2.5 Environmental site settings

S. No.	Particulars	Details	Remarks
i.	Total land	Total land is about 178.13 ha.	--
ii.	Land acquisition details as per MoEF&CC, O.M. dated 7/10/2014.	Out of 178.13 ha, 104.45 ha has been already acquired and balance 73.68 is under process of acquisition through KIADB.	
iii.	Existence of habitation & involvement of R&R, if any.	**Project site:** No habitation exists in the plant site. R&R not applicable.	--

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all corners of the project site</td><td><table><tr><th>Sl No.</th><th>Co-ordinates</th></tr><tr><td>1</td><td>Lat: 15°02’23.26” N, Long: 76°30’13.41”E</td></tr><tr><td>2</td><td>Lat: 15°02’00.16” N, Long: 76°30’36.91”E</td></tr><tr><td>3</td><td>Lat: 15°01’42.91” N, Long: 76°30’34.82”E</td></tr><tr><td>4</td><td>Lat: 15°01’32.98” N, Long: 76°30’50.02”E</td></tr><tr><td>5</td><td>Lat: 15°01’17.37” N, Long: 76°30’55.62”E</td></tr><tr><td>6</td><td>Lat: 15°01’09.54” N, Long: 76°30’25.04”E</td></tr><tr><td>7</td><td>Lat: 15°01’26.96” N, Long: 76°30’23.79”E</td></tr><tr><td>8</td><td>Lat: 15°01’35.02” N, Long: 76°30’12.56”E</td></tr></table></td><td>--</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>625 to 655 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>
<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> Seasonal first order drains.

<u>Study area:</u>

Narihalla stream is passing in the western direction of project site at about 1.5km.</td><td>No major water bodies are located within the study area</td></tr>
<tr><td>viii.</td><td>Existence of ESZ / ESA / National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. if any within the study area</td><td>Nil</td><td></td></tr>
</table>

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

Sl. No.	Name	Proposed Units		Total
		Configuration	Production TPA	
1	Pellet Plant	3.2 MTPA	3200000	3.2 MTPA

2	Beneficiation Plant	3.6 MTPA	3600000	3.6 MTPA

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

Sl. No.	Raw material	Quantity (T/Year)	Source	Distance from site	Mode of transportation
1	Iron ore fines	45,00,000 to 50,00,000	Indigenous (Mines belongs to group companies and other mines)	50	Downhill conveyor/ Road
2	Bentonite	27,000	Indigenous (Gujarat/nearby sources)	1500	Rail/road
3	Coke breeze	70,000	Indigenous (Bellary/Gujarat)	1500	Rail/road
4	Limestone/ dolomite	70,000	Indigenous (Bellary/Gujarat)	1500	Rail/road

12.2.8 Water requirement for the project is estimated as 6600 m^3/day, which will be obtained from Tunga Bhadra Dam by laying 700mm dia. pipeline at a distance of 35 Km. The permission for the same has been obtained from Water Resources Department, Government of Karnataka vide letter no. J.Sam.E21 MTP 2020, dated 23.02.2021.

12.2.9 The power requirement for the proposed project is estimated as 36 MVA for which permission from KPTCL is obtained vide letter dated 11.01.2021.

12.2.10 Baseline Environmental Studies

Period	March to May 2021
AAQ Parameters at 8 locations	• $PM_{2.5}$ = 23 to 40 µg/m^3 • PM_{10} = 52 to 73 µg/m^3 • SO_2 = 5.20 to 13.20 µg/m^3 • NO_2 = 9.40 to 19.20 µg/m^3 • CO = 218 to 1542 µg/m^3
AAQ Modeling (Incremental GLCs)	• PM_{10} = 16.33 µg/m^3 (Within project site) • $PM_{2.5}$ = 3.95 µg/m^3 (Within project site) • SO_2 = 3.42 µg/m^3 (Within project site) • NO_X = 7.33 µg/m^3 (Yeshwantnagar South, 1km)
Groundwater quality at 8 locations	pH: 6.52 to 7.12, Total Hardness: 340 to 1210 mg/l, Chlorides: 70 to 750 mg/l, Fluoride: 0.7 to 1.4 mg/l, Heavy metals: <0.001 to <0.01
Surface water quality at 9	pH: 6.71 to 7.21, DO: 4.7 to 6.8 mg/l, BOD: <2 mg/l, COD: 34 to 73 mg/l.

locations	
Noise levels at 8 locations	37.5 to 54.1 DBA for day time and 35.1 to 48.2 DBA for night time.
Traffic assessment studyfindings	• Traffic study has been conducted at SH 40, Sandur to Kudligi which is approximately 01 (distance) from the plantsite. • Transportation of raw material, fuel & finished product will be done 30% by road. • Existing PCU in SH = 8005 PCU/day. • Additional traffic load during operation of the project (PCU/Day) = 1305 PCU/day • Total traffic load during operation of the project = 9310 PCU/day • Traffic capacity as per the IRC 73: 1980 for highways (PCU/Day) = 15000 PCU/day • Available capacity after the plant operation = 5690 PCU/day
Flora and fauna	The conservation plan is prepared for schedule-1 species.

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

S. No.	Type of Waste	Source	Quantity generated	Mode of Treatment	Disposal
1	Tailings	Beneficiation plant	1500000 TPA	-	Stacking in a disposal area
2	Spent Oil	DG Sets, Transformers etc.	3 m^3/year	Sold to authorised vendors as per KSPCB norms	

12.2.12 Public Consultation

Date of advertisement	21 March 2022
Name of newspapers	National Paper (Decan Hearald) Regional Paper (Vijaya Karnataka)
Date on which Public Hearing conducted	22 April 2022
Venue	Project site Somalapura
Attended by	District Magistrate
Issues are	Employment generation, Education facilities to locals, pollution & health related issues to local villagers.

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

Sl. No.	Issues raised during Public Hearing	Commitment by project proponent	Action plan with time frame and budget
1	Employment generation and area development	About 1000 and 534 persons will be employed during construction and operation respectively. Mostly it will be sourced from the nearby villages. Development of surrounding villages will be carried out through CER and CSR funds.	CER amount of Rs. 25.75 Crore is planned to be spent during the time of construction period with a span of 60 months. CSR funds will be spent every year once the plant is commissioned.
2	Education for local	An amount of Rs. 100 lakhs are earmarked against the CER head of Education and skill development for local peoples.	This amount will be spent during construction stage i.e. 2023-2024.
3	Issues on Pollution	During construction, the measures like wetting of the roads, green belt development, erection of wind curtains and controlled vehicle movement will bring down the fugitive emissions level. Further, a modelling has been carried out to predict the fugitive dust generation during construction and the highest GLC values are occurring within the project site only and also the values are well within the AAQ norms. In addition, the nearest villages are Yeshwantnagara and Somalapura from project site. The width of the plantations in the project boundary near villages are about 50m is envisaged to reduce the impact through fugitive dust. **<u>During operation:</u>** To control air pollutions during operation various environmental pollution control measures are adopted in the proposed project like Dust Extraction systems, suitable stack heights, ESP's, Dry fog dust suppression system/secondary dust extraction system, hood extraction, bag filters, water spray as suitable to site, covered conveyors, Process Flue gas cleaning, water sprinklers in tailing disposal area etc. are adopted.	About Rs. 144.3 Crore is planned to be spent towards pollution control equipment, Rs. 10 Crore is planned to be spent on monitoring system and about Rs. 15.5 Crore is likely to be incurred towards recurring cost.

12.2.13 The capital cost of the proposed project is Rs. 2850 Crore and the capital cost for environmental protection measures is proposed as Rs.154.3 Crore. The annual recurring cost towards the environmental protection measures is proposed as Rs. 15.5 Crore. The employment generation from the proposed project is 534 nos. The details of cost for environmental protection measures is as follows:

Sl. No.	Item	Capital cost (Rs. in Crore)	Recurring cost per annum (Rs. in Crore)
A.	**Environmental Pollution Control**		
1	Air pollution control measures (ESP, Bag filters, Cyclone separators, Dry fog systems Water sprinklers, primary and dust extraction system, Fume hood) etc.	33.5	3.5
2	Gun type Water sprinklers around the solid waste dump and paste thickener/filter press and construction bund around the disposal area	65	6.5
3	Water pollution control measures (WTP and STP)	3	0.3
4	Noise pollution like erection of wind curtain, extended green belt etc.	1	0.1
5	Occupational health & nearest village medical camp	1	0.1
6	Personal safety equipment	0.5	0.05
7	Rain water harvesting system	34.8	3.4
8	Scavenger machines	3.0	0.3
9	Municipal solid waste management like Organic Waste Converter	1.0	0.1
10	Ground water monitoring network around the solid waste disposal area including drilling and installation of piezometer and minimum 10 places	1.5	0.15
B.	**Environmental and pollution monitoring**		
1	Environmental survey and sampling (Continuous AAQ monitoring system for 4 stations inside the plant including uploading into SPCB server with digital display board at plant site)	5	0.5
2	On line monitoring system for STP and stacks	2	0.2
3	Green belt development	3	0.3
C.	**Corporate Environment Responsibility (CER)**		
	CER will be spent during construction period (2021-2023)	25.75	-
D.	**Conservation plan of Schedule 1 fauna**		
	Conservation plan	0.5	-
	Total	**180.55**	**15.5**

12.2.14 Proposed greenbelt will be developed in 58.70 ha which is about 33% of the total project area. A 15m 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 146750 saplings will be planted and nurtured in 58.70 hectares in 5 years.

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

12.2.16 It was noted that the EAC Members are in receipt of a representation dated 30.08.2022 against the project raising objection for issuance of EC for 3.2 MTPA pellet Plant M/s RPCL, Sandur, Karnataka. Some of the important issues raised in the representation are as follows:

1. The proposed location of establishment of plant at fertilized agricultural land (but it has been purchased from most of the land through Benami transaction/ in the name of company earlier to proposed to seek establishment of plant) therefore easy claim land without any oppose for acquire of the land. Some people (agriculturist) had opposed the acquisition and still it is pending before the KIADB authorities, Davanagere.
2. The proposed location is adjacent to the forest land and surrounding within 1 km of radius there is a reserve forest, flora fauna, reservoirs, ancient temples, medicine plants etc.
3. The proposed location of establishment of plant rain catchment area and water will flow from forest and it will to reach the Narihalla water reservoirs about 8 km, the said reservoir is for drinking water for entire Sandur town and it causes the closing of natural diversion of the water.
4. The proposed location is very near to the village of Somalapura, Yeshwanthanagara within 300 meter, within 150 meter one Polytechnic college located.
5. The Grama Panchayath, Yeshwanthanagara, Sandur Taluk, Ballari have passed three resolution for oppose of establishment of RPCL Plant or any other plant within the jurisdiction of the said Grama Panchayath, Yeshwanthanagara.
6. Public hearing conducted by the Karnataka State Pollution board is not accordance with guidelines, in the said meetings other representatives like Grama panchayath, ecology, environment and forest and senior citizen of the locality were absent in hearing committee evaluates the suggestions/ objections submitted by the general public.
7. During the public hearing, 90% of the affected villages are opposed for establishment of plant (RPCL) kindly see the video of gathered more than 3 to 4 thousands of people are gathered. The villagers came with their bullock carts in this public meeting.
8. Already air pollution rampant due to mining operation surrounding the villages. The ambit of air pollution is not within the limits.
9. The health of the people is not with good condition, they are already suffering from many diseases because of the mining operations.
10. If pellet plant established in that location further causing degradation of the forest, agriculture, water table, flora fauna and further impact of air pollution even if taken any precautions.
11. Most of the association/ NGO's who have given representation on the date of public hearing, the said representation cannot be considered because the said association only to conduct the awareness to the public of that village about advantage or disadvantage and effect about the establishment of proposed pellet plant. Definitely the said representation indicate fraud/ fake/ paid/political and therefore not to consider the representation.

12. Some representation of the association are inactive and functioning against their bylaws. Therefore, detail investigation is required.
13. Unfortunate events that, those persons/ locals who opposed in the public hearing for the establishment of factory, those were booked for false complaint before the jurisdiction police by the influence of the owner.

Deliberations by the Committee

12.2.17 The Committee noted the following:

1. The EAC (Industry-1) members are in receipt of a representation dated 30.08.2022 against the project raising objection for issuance of EC for 3.2 MTPA pellet Plant M/s RPCL, Sandur, Karnataka. The EAC is of the opinion that since the issues raised are pertaining to proposed project, the complaint shall be shared with the project proponent for their pointwise reply. Also, it is pertinent to undertake site visit to understand the issues in detail. Accordingly, the Chairman has nominated Dr. S. Ranganathan, Dr. Hemant Sahasrabuddhe and Representative of MoEFCC to conduct the site visit and submit the Report for further deliberations by the EAC.
2. The EAC observed that M/s RPCL had obtained Transfer of ToR dated 26.02.2021 from M/s. Resource Concentrates Private Limited (RCPL) to M/s. Resource Pellets & Concentrate Pvt Ltd (RPCL) vide letter dated 27.10.2021 from MoEF&CC. However, the same is not disclosed in the instant EC application. Project proponent is advised to provide complete information in the form of chronology of events undertaken for obtaining EC with requisite documents.
3. The EAC observed that the area of the project land varies in ToR (178.46 ha), in the submitted brief/PPT (178.13 ha) and EIA/EMP report (440 acres which is equivalent to 178.062 ha). The project proponent is required to clarify the same and is advised to stick to single unit while defining the project area. Further, PP has reported that 104.45 ha has been already acquired and balance 73.68 ha is under process of acquisition through KIADB. M/s RPCL is required to submit detailed status of acquisition and has to complete the acquisition process.
4. The EAC observed that power requirement for the project has changed to 36 MVA from the recorded 32.6 MVA in TOR. The project proponent did not disclose the same and was was unable to explain the likely changes.
5. The EAC also observed that cost of the project has changed to Rs. 2850 from the recorded Rs. 2000 crores in TOR.
6. Somalapura (Population: 863 nos) and Yeshwantnagara (Population: 6847 nos) are in close proximity to the project site. Environmental safeguards to be adopted in this regard has not been enumerated in the Report.
7. The PP has reported that about 119 trees are identified to be felled in the proposed site. PP has not submitted the details of the tree felling and status of permission from the Competent Authority. Thus it is important to understand the nature of the land.

8. As reported about 9 reserve forests are falling within 10 km radius namely Kumaraswamy Betta, Somalapura RF, Bandri RF Extension, Ramangarh RF, Sivapura RF Extension, Tumbaraguddi RF, SM block RF, Keriyaginahalli RF extension, and Donimalai RF.

9. M/s. RPCL has declared that Seasonal first order drains are passing through the project site. The PP has not submitted suitable steps / conservation plan along with contouring, Run - off calculations, disposal etc. Further, Narihalla stream is passing in the western direction of project site at about 1.5 km. Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures is not submitted.

10. The EAC noted that project proponent has not reported Incremental GLC / AAQ modelling data for CO.

11. The Traffic assessment study findings is not appropriate. PP is required to undertake exhaustive study and present the data in the existing and post project scenario in the Ministry's prescribed format including LOS details.

12. PP reported that the conservation plan is prepared for schedule-1 species and the same is submitted to forest dept. for approval. PP is required to submit the updated status of the same with all the requisite documents and should upload on portal.

13. Complete details of solid and hazardous waste generation along with its mode of treatment/disposal has not been submitted in the EIA/EMP Report.

14. The action plan submitted by the PP to address the issues raised during the public hearing is not in conformity to MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30/09/2020.

15. The brief submitted by M/s. RPCL is incomplete and not in the Ministry's prescribed format. For e.g. paragraph mentioning the unit configuration and capacity of proposed units is missing.

16. The PP/Consultant has to revise the EIA/EMP Report along with all the details as per the provisions of the EIA Notification, 2006.

Recommendations of the Committee:

12.2.18 In view of the foregoing and after deliberations, the Committee recommended for site visit of the proposed project area by a sub-committee of EAC Industry-1 members comprising of Dr. S. Ranganathan, Dr. Hemant Sahasrabuddhe and Representative of MoEFCC to conduct the site visit and submit the Report. The proposal shall be appraised based on the findings of the sub-committee and deliberation of EAC.

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Agenda No. 12.3

12.3 Expansion of Integrated Steel Plant from 9.6 to 15.6 MTPA (Liquid Steel) by M/s ArcelorMittal Nippon Steel India Limited (M/s AMNS India Limited), located at Hazira Village in Surat District, Gujarat - Consideration of Environmental Clearance.

[Proposal No.: IA/GJ/IND/28848/2014; File No. J-11011/44/2004-IA.II (I) & J-11011/381/2014-IA I)]
[Consultant: Kadam Environmental Consultants; valid upto 19.03.2023]

12.3.1 M/s. ArcelorMittal Nippon Steel India Limited has made an online application vide proposal no. IA/GJ/IND/28848/2014 dated 22.08.2022 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 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.

12.3.2 Name of the EIA consultant: M/s. Kadam Environmental Consultants [Sl. No. 18, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0164; valid upto 19.03.2023, Rev. 24, July 05, 2022].

Details submitted by Project proponent

12.3.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
6th October 2021	48th meeting held on 11-12th November 2021.	Terms of Reference.	03.12.2021	02.12.2025
20th April 2022	5th meeting held on 12th-13th May, 2022.	Amendment in Terms of Reference*	30.05.2022	

**The ToR amendment proposal was initially considered by the EAC (Industry 1) in its 4th meeting during 27th – 28th April, 2022. After detailed deliberation, it was observed that*

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.

- *In view of the above observation by the EAC, the instant proposal was deferred and it was recommended that a subcommittee of EAC Industry-1 shall undertake a site visit of the project and based on the site visit report the instant proposal for ToR amendment shall be considered by the EAC.*
- *Accordingly, the EAC (Industry-1) sub-committee, along with Officers from the State Forest Department, conducted a site visit at Hazira, Surat, Gujarat on 10th May 2022 to ascertain the issues for the proposed project "Expansion of Integrated Steel Plant from 9.6 to 15.6 MTPA (Liquid Steel) by M/s. Arcelormittal Nippon Steel India Limited".*
- *The proposal was further re-considered by the EAC (Industry 1) in its 5th meeting during 12th – 13th May, 2022. After deliberations, the Committee recommended the project proposal for amendments in TOR w.r.t. (i) Amendment in Plant land details & revised plant boundary based on recent DILR survey and (ii) Amendment in Project configuration in line with modernization Project EC dated.02.03.2022.*

12.3.4 The project of M/s. Arcelormittal Nippon Steel India Limited is located in Hazira Village, Choryasi Tehsil, District Surat, Gujarat is for expansion of Integrated Steel Plant from 9.6 to 15.6 MTPA (Liquid Steel).

12.3.5 Environmental Site Settings:

Sl. No.	Particulars	Details	Remarks
1	Total land	Total land: 824.82 Ha. [Industrial: 750.18 Ha, Private: 8.91 Ha, Forest land 65.73 Ha]	Land use: Industrial Hazira Notified Industrial Area.
2	Land Acquisition details as per MoEF&CC O.M. dated 7/10/2014	Land required for proposed expansion: • 65.73 Ha Forest land which is under possession (FC-II is available) • 8.91 Ha private land (direct purchase from Land owners) • 72.53 Ha area will be used from Existing area	
3	Existence of habitation & involvement of R & R, if any.	Nil and hence no R&R is involved	
4	Latitude and Longitude of the project site	21° 6' 43.72''N 72 ° 38' 40.29''E	
5	Elevation of the project site	4-6 m above mean sea level.	

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>6</td><td>Involvement of Forest land if any.</td><td>86.49 Ha [20.76 Ha Forest land under existing area and 65.73 Ha under the proposed area.]
Stage II Forestry Clearance received for 65.73 Ha Forest land
Stage I Forestry clearance received for 20.76 Ha. forest land (inside existing township)</td><td></td></tr>
<tr><td>7</td><td>Water body exists within the project site as well as study area.</td><td>Project site:
There is no water body existing within the project site.
Study area:
<table>
<tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Arabian Sea</td><td>1 km.</td><td>S</td></tr>
<tr><td>Tapi Estuary</td><td>0.5 km.</td><td>E</td></tr>
<tr><td>Hazira village pond</td><td>2.2</td><td>S</td></tr>
<tr><td>Suvali village pond</td><td>3.3</td><td>NNW</td></tr>
<tr><td>Mora village pond</td><td>2.7</td><td>N</td></tr>
<tr><td>Junagam village pond</td><td>1.4</td><td>W</td></tr>
</table></td><td>Certification on Flood Plain specifying Hajira being not listed in affected Villages due to floods in Tapi River as per Disaster Management Plan 2021 has been issued by ADM, District Surat vide letter No. Disaster/AMNS/Flood Plain/ Ws.07/2022 dated 01.01.2022.</td></tr>
<tr><td>8</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area.</td><td>Nil.

Forests:
▪ Hazira Reserve Forest 1.72 SSW
▪ Open Forest near Dumas Village 5.42 SE
▪ Open Forest near Vasava Village 6.40 NNW</td><td></td></tr>
<tr><td>9</td><td>Existence of sand dunes, mangroves mud flats</td><td>The project premises were identified with the help of GPS data derived from satellite image and No Mangrove species were found to be present within the project premises.

The presence of mangrove species has been observed in areas outside the AMNS premises, within the study area and far away from project site. The species Avicennia marina is found to be dominant in these areas.</td><td></td></tr>
</table>

12.3.6 The existing project was accorded the environmental clearance vide no. J-11011/381/2014-IA.II (I) dated 09.03.2016 for Replacement of existing Hot Briquetted Iron (HBI)/Direct Reduced Iron (DRI) Modules I to IV with Blast Furnace and associated facilities like Sinter Plant, Coke Oven Plant and existing Electric Arc Furnace (EAF) facility with Basic Oxygen Furnace (BOF) facility in the existing integrated steel plant. Meanwhile, M/s. AMNS vide letter No. J-11011/44/2004-IA II(I) dated 08.02.2021 also obtained EC for its modernisation project involving modification in existing plant by installing Auxiliary Facilities without increasing Plant Capacity. Consent to Operate for the existing unit was accorded by Gujarat Pollution Control Board vide no. and dated as given below:

CTO No.	Date of issue	Validity upto
GPCB/CCA-SRT-1082(5) ID 28839 (PIPE MILL)	07.04.2020	31.12.2024
GPCB/CCA-SRT-1162 (2) ID 22968 (PLATE MILL)	07.04.2020	31.12.2024
AWH 103579 (POWER PLANT)	19.08.2019	31.03.2024
GPCB/CCA-SURAT-1190(6)/ID 14186 (Conarc division)	20.05.2020	31.12.2024
GPCB/CCA-SURAT-340 (15)/ID 20680 (HRC Division)	07.04.2020	31.12.2024

12.3.7 Implementation status of existing EC:

Sl. No	Plant / Facility	As per EC dated: 09.03.2016 (A=A1+A2)							Final Configuration and Production as per EC dated 02.03.2022 for Modification Project of AMNS		Remarks by PP
		Total (A)		Implemented (A1)		Un-implemented (A2)		As per CTO			
		Config.	Capacity in TPA	Config.	Capacity in TPA	Config.	Capacity in TPA	Capacity in TPA	Config.	Capacity in TPA	
1	Hot Briquetted Iron (HBI) Plant (DRI Mod I to VI)	Mod I-IV: 4.0 Mod V: 1.98 Mod VI: 1.85	7.83 (- 4.0* =3.83)	Mod I-IV: 4.0 Mod V: 1.98 Mod VI: 1.85	7.83	-	-	7.83	Mod I-IV: 4.0 Mod V - 1.98 Mod VI: 1.85	7.83	* Earlier planning was to remove HBI Modules (1 to 4) totalling 4 MTPA and replace it with Blast Furnace of 3.0 MTPA. This could not be implemented due to fund constraints and legal cases at the NCLT. *Original capacity prior to EC 2016 was 7.83 MTPA only. It is now proposed to maintain this original capacity. CTO has been sanctioned for 7.83 MTPA.
2	Blast Furnace (BF)	1 x 2.04 (2200 m3) 1 x 3.0	5.04	1 x 2.04	2.04*	1 x 3.0	3.0#	2.04	BF#1 (2200 m3)	2.04	# 1 x 3.0 MTPA couldn't be implemented due to fund constraints and legal cases at the NCLT, now dropped.
3	Sinter Plant	1x1.48 (1 x 120 m2) 2x3.5 (~ 325 m2 each)	8.48	1 x 1.48 (1 x 120 m2)	1.48	2 x 3.5 (~ 325 m2 each)	7.0*	1.48	1x1.48 (1 x 120 m2)	1.48	* 7.0 MTPA plant could not be implemented due to fund constraints and legal cases at the NCLT. Now, will establish the 7.0 MTPA Plant under the proposed expansion project.
4	Coke Oven (Recovery Type)	1 x 1.20 1 x 1.35	2.55	2 x 59 Ovens	1.35#	-	1.20*	-	CO Battery# 1 2 x 59 Ovens	1.35	# Under implementation *1.2 MTPA plant could not be implemented due to fund constraints and legal cases at the NCLT. *2016 EC approved for 2.55 MTPA, AMNSI is proceeding only with 1.35 MTPA since 1.2 MTPA originally secured in 2010 EC has now lapsed.
		1 X 343 TPD		1 X 343 TPD					1 X 343 TPD		

Sl. No	Plant / Facility	As per EC dated: 09.03.2016 (A=A1+A2)							Final Configuration and Production as per EC dated 02.03.2022 for Modification Project of AMNS		Remarks by PP
		Total (A)		Implemented (A1)		Un-implemented (A2)		As per CTO			
		Config.	Capacity in TPA	Config.	Capacity in TPA	Config.	Capacity in TPA	Capacity in TPA	Config.	Capacity in TPA	
5	Air Separation Plant (Nm3/Hr)	1 X 257 TPD 1 X 785 TPD 3 X 1714 TPD 1 X 700 TPD 1 X 2200 TPD (Only oxygen)	424,744	1 X 257 TPD 1 X 785 TPD 3 X 1714 TPD 1 X 700 TPD (Only oxygen)	360,544	1 X 2200 TPD*	64,200*	360,544	1 X 257 TPD 1 X 785 TPD 3 X 1714 TPD 1 X 700 TPD 1 X 2200 TPD (Only oxygen)	424,744	* 3,60,544 Nm3/hr plants are in, operations, balance 64200 Nm3/hr plant will be established as per 2016 EC
6	SMS-1 (EAF 4 Nos.)	4 x 150 MT Heat size	4.6*	4 x 150 MT Heat size	4.6*		-	4.6	4 x 150 MT Heat size	4.6	*Earlier planning was to remove 4.6 MTPA EAF -4 nos. and replacing with BOF-3 nos. in its place but that could not be implemented due to fund constraints and legal cases at the NCLT. Original capacity prior to EC 2016 was 4.6 MTPA only and it is now submitted to retain this original capacity. CTO has been sanctioned for 4.6 MTPA.
7	SMS-2	4 x 200 MT Heat size	5.0	4 x 200 MT Heat size	5.0		-	5.0	4 x 200 MT Heat size	5.0	
Total SMS			**9.6**		**9.6**		**-**	**9.6**			
											Plant will be operated till the proposed expansion is completed. Thereafter it will be

Sl. No	Plant / Facility	As per EC dated: 09.03.2016 (A=A1+A2)							Final Configuration and Production as per EC dated 02.03.2022 for Modification Project of AMNS		Remarks by PP
		Total (A)		Implemented (A1)		Un-implemented (A2)		As per CTO			
		Config.	Capacity in TPA	Config.	Capacity in TPA	Config.	Capacity in TPA	Capacity in TPA	Config.	Capacity in TPA	
8	Corex Plant	2 x 0.85	1.7	2 x 0.85	1.7	-	-	1.7	2 x 0.85	1.7	shutdown safely and will be started only in case of any unit going down but maintaining sanctioned production of hot metal.
9	Lime Plant (Lime/Dolomite	1 x 0.45 (4x300 TPD) 1x 0.48 (3x500 TPD)	0.93	1 x 0.45 (4x300 TPD) 1x 0.48 (3x500 TPD)	0.93	-	-	0.93	1 x 0.45 (4x300 TPD) 1x 0.48 (3x500 TPD) 1 x 0.27 (1x500 + 1x200 TPD)	1.2	*0.27 MTPA production through 1x500 + 1x200 TPD Kilns proposed under Modification project. 0.8 MTPA proposed under the 9.6 to 15.6 MTPA liquid steel expansion project.
10	Plate Mill	1 x 1.5	1.5	1 x 1.5	1.5	-	-	1.5	1 x 1.5	1.5	
11	CSP and HRC	1 x 3.5*CSP 1 x 4.5#HRC	8.0*	1 x 3.5*CSP 1 x 4.5#HRC	8.0*	-	-	8.0	1 x 3.5 CSP 1 x 4.5 HRC	8.0	* 3.5 MTPA approved vide 05.07.2010 EC # 4.5 MTPA Approved vide 29-05-2008 EC Total 8.0 implemented, but inadvertently mentioned 3.5 MTPA only in 2016 EC
12	CRM	1 x 1.5	1.5	1 x 1.5 1 x 0.54*	2.04*	-	-	2.04	1 x 1.5 1 x 0.54 1 x 2.2 1 x 1.0	5.24	* CTO taken for additional 0.54 MTPA from GPCB. #3.2 MTPA proposed in Modification Project, 2021 through 2 Units (1x2.2 + 1x1 MTPA)
13	Pipe mill:										
	H Saw Pipes (in MTPA)	1 x 0.15	0.15	1 x 0.15 1 x 0.15*	0.30*	-	-	0.3	1 x 0.15 1 x 0.15	0.30	0.15 MTPA as per 2016 EC *CTO taken for additional 0.15 MTPA from GPCB.

Sl. No	Plant / Facility	As per EC dated: 09.03.2016 (A=A1+A2)							Final Configuration and Production as per EC dated 02.03.2022 for Modification Project of AMNS		Remarks by PP
		Total (A)		Implemented (A1)		Un-implemented (A2)		As per CTO			
		Config.	Capacity in TPA	Config.	Capacity in TPA	Config.	Capacity in TPA	Capacity in TPA	Config.	Capacity in TPA	
											(0.15+0.15=0.30).
	L Saw Pipes (in MTPA)	1 x 0.33	0.33	1 x 0.33	0.33	-	-	0.33	1 x 0.33	0.33	
14	CPP (in MW)	1 X 475 MW 1 X 31 MW 1 X 40 MW 1 X 10 MW 1 X 48 MW	604	1 X 475 MW 1 X 31 MW 1 X 40 MW 1 X 10 MW	556	1 x 48 MW	48*	556	1 X 475 MW 1 X 31 MW 1 X 40 MW 1 X 10 MW	556	* 48MW has been dropped and will not be implemented
15	Waste Heat Recovery based Power Plant (in MW)	1 x 25 MW 1 x 20 MW*	45	1 X 25 MW	25	1 X 20 MW	20*	25	1 x 25 MW 1 x 20 MW	45	*20 MW to be implemented under EC 2016
16	Jetty (length in m)	456 m+ 734 m	1190 m	456 m + 734 m	1190 m	-	-	734 m*	-	1190	* 734 and 456-meters capacity was sanctioned in 2006 EC. This was implemented although inadvertently mentioned 734 m only in 2016 EC and CTO also mentioned the same 734m length.

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

Sl. No.	Plant / Equipment / Facility	Existing as per EC dated 9th March, 2016		Proposed		Total after Expansion		Remark
		Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	
1	HBI Plant (DRI Mod I to VI)	Mod I-IV: 4.0 Mod V: 1.98 Mod VI: 1.85	7.83 (-4.0*) =3.83	--	--	Mod I-IV: 4.0 Mod V: 1.98 Mod VI: 1.85	7.83	*Earlier planning was to remove HBI Modules (1 to 4) totalling 4 MTPA and replace it with Blast Furnace of 3.0 MTPA. This could not be implemented due to fund constraints and legal cases at the NCLT. Original capacity prior to EC 2016 was 7.83 MTPA only. It is now proposed to maintain this original capacity. CTO has been sanctioned for 7.83 MTPA.
2	Blast Furnace (BF)	BF#1: 2.04 MTPA (1x2200 m3) 1X3.0#	5.04*	BF#1: 0.96 MTPA BF#2 &3: 2 x 4.0 (~4500 m3 each)	8.96	BF#1: 3.0 MTPA (2200 m3) BF#2: 4.0 MTPA (4500 m3) BF#3: 4.0 MTPA (4500 m3)	11.0	Existing operational capacity of BF#1 is proposed to be upgraded from 2.04 MTPA to 3.0 MTPA. # 1X3.0 MTPA couldn't be implemented due to fund constraints and legal cases at the NCLT. Further, additional 2 nos. of BFs of capacity 4.0 MTPA, each are proposed.
3	Sinter Plant	1x 1.48 MTPA (1 x 120 m2) 2x 3.5(~325 m2 each)	8.48*	2 x 3.5 MTPA (~ 325 m2 each)	7.0	1x 1.48 MTPA (1 x 120 m2) + 2 x 3.5 MTPA (~ 325 m2 each)	8.48	*7.0 MTPA plant could not be implemented due to fund constraints and legal cases at the NCLT and it was dropped. Now, it is proposed to install 7.0 MTPA

Sl. No.	Plant / Equipment / Facility	Existing as per EC dated 9th March, 2016		Proposed		Total after Expansion		Remark
		Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	
								Sinter Plants. (It will comprise of 02 number plants).
4	Coke Ovens (Recovery Type)	1x 1.2 1x1.35#	2.55*	CO Battery# 3,4,5 & 6 4 x 59 Ovens	3.05	CO Battery#1 to 6 6 x 59 Ovens	4.4	2016 EC approved for 2.55 MTPA, AMNSI is proceeding only with 1.35 MTPA since 1.2 MTPA originally secured in 2010 EC has now lapsed. #1.35 MTPA is under implementation.
5	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 1x2200 TPD	424,744			1 X 343 TPD 1 X 257 TPD 1 X 785 TPD 3 X 1714 TPD 1 X 700 TPD 1 X 2200 TPD	424,744	Capacity indicates oxygen only.
6	SMS-1 (EAF 4 Nos.)	4 x 150 MT Heat size	4.6*	--	--	4 x 150 MT Heat size	4.6	* Earlier planning was to remove 4.6 MTPA (EAF-4 nos.) and replace with BOF (3 nos) in its place but that could not be implemented due to fund constraints and legal cases at the NCLT. Original capacity prior to EC 2016 was 4.6 MTPA only and it is now submitted to retain this original capacity. CTO has been sanctioned for 4.6 MTPA.
7	SMS-2 (Con Arc 4 Nos.)	4 x 200 MT Heat size	5.0	--	--	4 x 200 MT Heat size	5.0	

Sl. No.	Plant / Equipment / Facility	Existing as per EC dated 9th March, 2016		Proposed		Total after Expansion		Remark
		Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	
8	SMS-3 (BOF – 3 nos.)	--	--	3 x 350 MT Heat size *	6.0	3 x 350 MT Heat size *	6.0	New SMS-3 Shop for 6.0 MTPA is proposed. 3x350 Ton Converters shall be installed (* 2 Working + 1 stand-by)
Total SMS		9.6		--	6.0	15.6		
9	COREX Plant	2 x 0.85	1.7	-	-	2 x 0.85	1.7*	* Plant will be shutdown safely and will be started only in case of any other unit going down but maintaining sanctioned production quantity of hot metal.
10	Lime Plant (Lime/ Dolomite	1 x 0.45 (4 x 300 TPD) 1 x 0.48 (3 x 500 TPD) 1 x 0.27* (1x200 + 1x500 TPD)	1.2	1 x 0.8 (4 x 600 TPD)	0.8	1 x 0.45 1 x 0.48 1 x 0.27* 1 x 0.8	2.0	*** 0.27 MTPA plant shall be installed under Modernisation EC granted on 02.03.2022**. 0.8 MTPA proposed in this expansion.
11	Plate Mill	1 x 1.5	1.5	--	--	1 x 1.5	1.5	
12	CSP & HRC	CSP 1 x 3.5 MTPA HRC 1 x 4.5 MTPA	8.0*	1 x 6.0 MTPA	6.0	1 x 3.5 MTPA 1 x 4.5 MTPA 1 x 6.0 MTPA	14.0	*Approved vide 29th May 2008 EC for 4.5 MTPA and this was operationalized through CTO. 3.5 MTPA provided under 2016 EC and operationalized under CTO.
13	CRM	1 x 1.5 1 x 0.54 1 x 2.2 1 x 1.0	5.24	---	---	1 x 1.5 1 x 0.54 1 x 2.2 1 x 1.0	5.24	**CRM 3.2 MTPA is being implemented under Modification EC dated.02.03.202.**
14	Pipe Mill							
	H Saw Pipes	1 x 0.15 1 x 0.15	0.30	--	--	1 x 0.15 1 x 0.15	0.30	
	L Saw Pipes	1 x 0.33	0.33	--	--	1 x 0.33	0.33	

Sl. No.	Plant / Equipment / Facility	Existing as per EC dated 9th March, 2016		Proposed		Total after Expansion		Remark
		Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	Configuration	Capacity in MTPA	
15	CPP	1 X 475 MW 1 X 31 MW 1 X 40 MW 1 X 10 MW 1x48 MW*	(604-48) 556	2 x100 MW (By-product Gas based PP) 2 x 25 MW (TRT BF # 2&3)	250 MW	1 X 475 MW 1 X 31 MW 1 X 40 MW 1 X 10 MW 2 x100 MW 2 x 25 MW	806	#1x48 MW dropped as per modification project EC dated.02.03.2022.
16	Waste Heat Recovery based Power Plant (in MW)	1 x 25 MW 1 x 20 MW#	45	1x 100 MW CDQ based	100 MW	1 x 25 MW 1 x 20 MW 1x 100 MW CDQ based	145	#Will be implemented under the EC 2016
17	Jetty (length in m)	456 M+ 734 m	456 M+ 734 m	-	-	456 m + 734 m	1190 m	

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

Sl. No.	Raw Material	Quantity required per annum			Source	Distance from site (Approx. Kms)	Mode of Transportation
		Existing	Proposed	Total			
1.	DR Grade Pellets	11,823,300	0	11,823,300	AMNSI's Palletization plants located at Vizag and Paradeep	5200/ 5750	Sea Route
2.	BF Grade Pellets	5,400,000	6,759,536	12,159,536			
3.	Calibrated Lump Ore	0	127,660	127,660	NMDC mines in Kirandul, Dist. Dantewada, CG	450+5200	Rail + Sea Route
4.	Iron Ore Fines	185,000	3,942,444	4,127,444	Goa, Odisha NMDC mines	900/5750	Sea Route
5.	Coal-PCI-BF	408,000	2,036,444	2,444,444	Australia (Mainly) and Canada,	19650/ 16600/ 29850/	Sea Route
6.	Coal for Corex	2,770,000	-2,770,000	0			

Sl. No.	Raw Material	Quantity required per annum			Source	Distance from site (Approx. Kms)	Mode of Transportation
		Existing	Proposed	Total			
7.	Metallurgical Coal	1,957,500	4,501,564	6,459,064	USA and Russia	17100	
8.	Coke	1,155,000	-1,155,000	0			
9.	BF and Sinter Grade Flux (Limestone +Dolomite + Pyroxenite + Quartzite)	690,000	493,715	1,183,715	Dubai and Oman	2640/ 2200	Sea Route
10.	SMS grade Limestone and Dolomite	1,863,000	2,562,564	4,425,564			

12.3.10 The existing water requirement is 145,839 m^3/day which is obtained from the Tapi River and permission for the same has been obtained. The water requirement for the proposed project is estimated as 91,560 m^3/day, out of which 81,600 m^3/day of freshwater requirement will be obtained from River Tapi and remaining requirement of 9,960 m^3/day will be met from Effluent Treatment Plant. The Permission for drawl of 87 MGD (329,330 m^3/day) is obtained from Narmada Water Resources Water Supply and Kalpasar Department vide letter no. 248/2021/1444 dated 27th July 2021.

12.3.11 The existing power requirement is 1163 MW (including 125 MW for proposed modification project). The power requirement for the project is estimated as 1573 MW, out of which 810 MW will be obtained from the Captive Power Plant, 243 MW from the Third party and 520 MW from Grid (Power System Operation Corporation Limited).

12.3.12 Baseline Environmental Studies:

Period	7th March 2021 to 6th June 2021
AAQ Parameters At 8 Locations during summer Season	• PM 10: 32-138 ug/m^3 • PM 2.5: 6- 57 ug/m^3 • SO2: 4.3 to 16.1 ug/m^3 • NO2: 7.1 – 16.6 ug/m^3 • CO: 0.89 – 1.35 mg/m^3
AAQ Parameter at 12 locations for 1 month	**Additional Study (23rd November 2021 to 26th December 2021)** • PM 10: 70 - 97 ug/m^3

<table>
<tr><th>Period</th><th>7th March 2021 to 6th June 2021</th></tr>
<tr><td></td><td>

PM 2.5: 23-50 ug/m^3
SO2: 5.9 - 8.7 ug/m^3
NO2: 13.7 - 19.1 ug/m^3
CO: 0.6 - 0.8 ug/m^3
O3 : 6.7 - 11.8 ug/m^3
BaP : 0.05 ng/m^3 - 0.35 ng/m^3
NH_3, Pb, As, Ni, Hg and C_6H_6 : BDL

</td></tr>
<tr><td>AAQ Modelling (Incremental GLC)</td><td>
<table>
<tr><th rowspan="2">Parameters</th><th colspan="3">AERMOD</th><th colspan="3">CALPUFF</th></tr>
<tr><th>Value (ug/m^3)</th><th>Distance In meter</th><th>Direction</th><th>Value (ug/m^3)</th><th>Distance In meter</th><th>Direction</th></tr>
<tr><td>PM10</td><td>22.7</td><td>2000</td><td>SSW</td><td>22</td><td>1600</td><td>E</td></tr>
<tr><td>PM2.5</td><td>15.31</td><td>2000</td><td>SSW</td><td>14.98</td><td>1600</td><td>E</td></tr>
<tr><td>SO2</td><td>24.7</td><td>4000</td><td>SW</td><td>29.8</td><td>At site</td><td>-</td></tr>
<tr><td>NOX</td><td>19.1</td><td>5000</td><td>SSW</td><td>24.2</td><td>At site</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Ground Water Quality at 8 Locations</td><td>pH: 7.54 to 8.31, Total Hardness: 190 to 1210 mg/l, Chlorides:210 to 2229 mg/l, Fluoride: <0.05 mg/l, Iron: < 0.05 mg/l, Lead: <0.01 mg/l, Chromium: <0.02 mg/l</td></tr>
<tr><td>Surface Water Quality at 8 locations</td><td>pH: 7.23 to 8.39, DO: 4.0 to 6.6 mg/l, BOD:4 to 14 mg/l, COD: 12 to 57 mg/l</td></tr>
<tr><td>Noise Levels at 8 locations</td><td>53.9 to 67.8 dB(A) for daytime and 44.6 to 65.4 dB(A) for nighttime.</td></tr>
<tr><td>Traffic assessment study findings</td><td>
Traffic study has been conducted at Ichchapore to AMNSI road and Adani Port to Ichchapore which is approximately at 30-meter Distance from site
Transportation of raw material, fuel and finished product will be done 15% by road.
Existing PCU is 765 PCU/hr on Ichchapore to AMNSI road 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>Ichchapore to AMNSI</td><td>765</td><td>1900</td><td>0.403</td><td>B</td></tr>
</table>
Existing PCU is 898 PCU/hr on Adani port to Ichchapore road 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>
</table>
</td></tr>
</table>

<table>
<tr><th>Period</th><th>7th March 2021 to 6th June 2021</th></tr>
<tr><td></td><td>
<table>
<tr><td>Adani port to Ichchapore</td><td>898</td><td>1500</td><td>0.599</td><td>C</td></tr>
</table>
PCU load after proposed project on Ichchapore to AMNSI road will be 765(Existing)+260(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>Ichchapore to AMNSI</td><td>1024</td><td>1900</td><td>0.539</td><td>C</td></tr>
</table>
PCU load after proposed project on Adani Port to Ichchapore road will be 898(Existing)+260(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>Adani port to Ichchapore</td><td>1158</td><td>1500</td><td>0.772</td><td>D</td></tr>
</table>
Note: Capacity as per IRC 64: 1990 Guideline for capacity for roads.
</td></tr>
<tr><td>Flora and fauna</td><td>Three Schedule-I species i.e. Pea fowl (Pavo cristatus), White-rumped Vulture (Gyps bengalensis) and Leopard (Panthera pardus) as per Wild Life Protection Act (1972) are found in the buffer zone of the project area. Wildlife Conservation Plan is prepared and approved by PCCF Gujarat vide letter No. WLP/32/C/86b-866/2021-22 dated 15.01.2022 with a yearly approved budget of Rs. 2,75,000 / annum.</td></tr>
</table>

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

Solid Wastes

Sl. No.	Solid Wastes	Quantity of Generation in TPA			Management
		Existing + Modification	Proposed	Total	
Dust Generation					
a.	HBI (DRI) Fines	228,690	0	228,690	Sales to outside agencies / units for Iron recovery.
b.	Corex Plant Dust	9,000	0	0	Corex plant will be kept in standby mode
c.	Coke Oven CDQ Dust	13,500	30,500	44,000	Will be used in Sinter Plant
d.	BF Flue Dust (Dust Catcher)	102,000	448,000	550,000	Will be used in Sinter Plant
e.	BF GCP Dust (BF#2&3)	--	268,800	268,800	Will be used in Sinter Plant.

Sl. No.	Solid Wastes	Quantity of Generation in TPA			Management
		Existing + Modification	Proposed	Total	
f.	EAF, LRF & RH-OB Dust	57,500	0	57,500	Will be used in Sinter Plant
g.	ConArc Fce., LRF & RH- OB Dust	140,000	0	140,000	Will be used in Sinter Plant
h.	BOF GCP Dust	--	90,000	90,000	Will be used in Sinter Plant
i	BOF FES Dust	--	135,000	135,000	Will be used in Sinter Plant
j	Lime Plant Bag Filter Dust	74,100	78,600	152,700	Will be used in Sinter Plant
k	Dolo Plant Bag Filter Dust	50,950	40,500	91,450	Will be used in Sinter Plant
Sludge Generation					
a.	HBI Plant	254,700	0	254,700	Will be used in Sinter plant
b.	Corex Plant	1,20,000	0	0	Corex plant will be kept in standby mode
c	Blast Furnace#1 GCP Sludge	61,200	0	61,200	Will be used in Sinter plant after drying
Slag Generation					
a.	Corex Plant	6,40,000	0	0	
b.	BF Air Cooled Slag	68,545	150,550	219,095	Will be used as construction aggregates and internal road making
c.	BF Granulated Slag	616,895	28,60,450	34,77,345	Will be sold to the Cement companies
d.	EAF Slag (incl. LRF & RH-Degasser)	11,04,000	0	1104,000	Will be crushed and after metal recovery, will be used as aggregates in construction work, for internal roads and approach roads as a sub base material
e.	ConArc Slag (incl. LRF, RH-Degasser & Desulphurisation)	990,000	0	990,000	Will be crushed and after metal recovery, will be used as aggregates in construction work, for internal roads and approach roads as a sub base material
g.	BOF Slag	--	780,000	780,000	Shall be used for soil conditioning. Weathered slag shall be used for internal road and village road construction under

Sl. No.	Solid Wastes	Quantity of Generation in TPA			Management
		Existing + Modification	Proposed	Total	
					CSR and as rail ballast for internal rail network.
Generation of Scale					
a.	SMP-1 Slab Caster	11,300	--	11,300	Will be used in Sinter Plant
b.	SMP-2 Slab Caster	3,600	--	3,600	Will be used in Sinter Plant
c.	CSP	39,000	--	39,000	Will be used in Sinter Plant
d.	SMP-3 Slab Caster	--	5,800	5,800	Will be used in Sinter Plant
Generation of Mill Scale					
a.	HSM-1	45,700	--	45,700	Will be used in Sinter Plant
b.	Plate Mill	10,100	--	10,100	Will be used in Sinter Plant
c.	L saw Plant	2,000	--	2,000	Will be used in Sinter Plant
d.	H saw Plant	5,350	--	3,100	Will be used in Sinter Plant
e.	HSM-2	--	67,300	67,300	Will be used in Sinter Plant

Hazardous Wastes

Sl. No.	Name of Hazardous Waste	Total Quantity after Proposed Modification (TPA)	Proposed Expansion (TPA)	Total After proposed Expansion (TPA)	Action plan for Disposal / Management.
1	ETP Sludge	38,000	23,000	61,000	Disposal to GPCB authorized TSDF site
2	Used Oil (KL/Year)	3,000	2,100	5,100	Selling to MoEF&CC / GPCB Authorised Vendors.
3	Oily Waste	2,500	1,600	4,100	Collection, Storage, Transportation and Disposal by selling to Registered Vendors/TSDF/Recycle in process (Sinter plant/Blast Furnace), Briquetting, Co processing in cement units.
4	Discarded Container / Barrels / Liners / Paint Drums (Nos/Year)	30,000	21,600	51,600	Selling to MoEF&CC / GPCB Authorised Vendors.
5	Discarded Resin	200	120	320	Co-processing in DRI / HBI units as per CPCB guidelines / Disposal at TSDF/CHWF
6	Zinc Dross & Zinc Ash	6,000	0	6,000	Selling to authorized recycler.

Sl. No.	Name of Hazardous Waste	Total Quantity after Proposed Modification (TPA)	Proposed Expansion (TPA)	Total After proposed Expansion (TPA)	Action plan for Disposal / Management.
7	Contaminated cotton rags (Oily socked cotton waste)	500	500	1,000	Collection, Storage, Transportation and Disposal by selling to authorized Vendor or disposal at GPCB approved TSDF site.
9	Spent Acid	8,57,750	0	8,57,750	Maximum acid will be recovered from this Spent acid in Acid Regeneration Plant (ARP) and balance spent Acid disposal to Authorized Recyclers. Recovered acid will be Reuse as a Raw Material
10	Tar Sludge (Coke Oven)	120	280	400	Tar sludge will be mixed with coal blend before feeding it to coke oven batteries
11	ETP (BOD Plant) Sludge (Coke Oven)	160	320	480	ETP (BOD Plant) sludge will be mixed with coal blend for charging in the coke oven batteries.
12	Chromic Sludge	8	0	8	Selling to outside Agency

12.3.14 Public Consultation:

Details of advertisement given	Gujarati Newspapers "Gujarat Mitra" on dated 15th June 2022 and in English newspaper "Indian Express" on dated 15th June 2022.
Date of public consultation	18th July 2022
Venue	Truck Parking area, Behind Hazira Police Station, Surat- Hazira Road, Hazira 394270, Dist Surat (Gujarat).
Presiding Officer	District Collector & District Magistrate, Surat District
Major issues raised	• Employment • Infrastructure development • Pollution from the project • Issues related to land • Greenbelt development within / outside plant • Source of water and waste water treatment & disposal • Disposal of wastes • Safety & health related issues etc.

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

CER Budget - Yearly (1-5 yrs.)		2023	2024	2025	2026	2027	Rs. In Crores
S. No.	Major activities	1st Year	2nd Year	3rd Year	4th Year	5th Year	Total Amount
A	**Education**						
1	STEM Learning Centre in 10 Middle and 5 High Schools	0.3	0.3	0.3	0.3	0.3	1.5
2	Padhega Bharat- Digital Pathashala - (Smart class + Learning apps etc.) – 40 Middle school (Class 6-8)	1	1	1	1	1	5
3	Model Anganwadi – Improvement in basic amenities & teaching learning materials in 20 Anganwadi centres	1	1	1	1	1	5
4	Construction of English Medium School Building/hall, Computer Lab, Biology Lab, Chemistry Lab	1	1	0.2	0.2	0.1	2.5
5	Improvement in basic amenities, community teachers & teaching learning materials in 10 Primary and 3 secondary School for quality education (Renovation of School, Toilet Block, Computer Lab & other work)	1	0.5	0.5	0.5	0.5	3
6	Beti padhao Scholarship Program for Girls students	1	2	2	2.5	2.5	10
	Sub Total	**5.3**	**5.8**	**5**	**5.5**	**5.4**	**27**
B	**Health & Sanitation**						
1	Strengthening/Renovation of the Government Health Centres. [PHC, CHC & Medical Sub-centres]	0.75	0.5	0.5	0.5	0.5	2.75
2	Setting up Hospital Facility for Local People in partnership with Notified Authorities	2	0.1	0.1	0.1	0.1	2.4
3	Mobile Medical Unit for free treatment and medicine support to community	0.5	0.3	0.35	0.35	0.35	1.85
4	Artificial limb camp for People with physical disability	0.5	0.5	0.5	0.5	0.5	2.5
5	Eye check-up camp (for truck drivers, School childrens, Elder & other peoples)	0.5	0.5	0.5	0.5	0.5	2.5
	Sub Total	**4.25**	**1.9**	**1.95**	**1.95**	**1.95**	**12**
C	**Infrastructure Development**						
1	Solar Street light 1800 nos.	0.5	0.75	0.75	0.75	0.75	3.5
2	Construction of Community Centre in Hazira, Vanesa, Rajbari & Dumka villages	0.5	0.5	0.5	0.5	0.5	2.5
3	Construction and repair of drainage system in Hazira with Panchayat-Hazira to avoid water logging	0.5	0.5	0.5	0.5	0.5	2.5
4	Repair and Renovation of the Internal Road in Hazira Village and other need-based community support	0.6	0.6	0.6	0.6	0.6	3
5	Infrastructure development in villages (Crematorium, Bus stop, community park, recreation centre etc.)	0.5	0.5	0.5	0.5	0.5	2.5
6	Drinking Water pipeline installation and maintenance work at Hazira Village	1	1	1	1	1	5
7	Overhead water tank construction work in Hazira, Damka, Vansva & other Villages	0.4	0.4	0.4	0.4	0.4	2
	Sub Total	**4**	**4.25**	**4.25**	**4.25**	**4.25**	**21**

CER Budget - Yearly (1-5 yrs.)		2023	2024	2025	2026	2027	Rs. In Crores
S. No.	Major activities	1st Year	2nd Year	3rd Year	4th Year	5th Year	Total Amount
D	**Sustainable Livelihood**						
1	Vocational Skill Training centre for unemployed 600 youths- in partnership with NSDC.	0.5	0.5	0.5	0.5	0.5	2.5
2	Natural Resource Management project (Farm and Non based income generation activities, livestock & watershed work) Hazira, Junagam, Mora, Damka, Vansva, Rajgari, Suwali & Bhatlai Villages	1	1	1	1	1	5
3	Fishing net and fishing tool to fishing community of Hazira Village	0.5	0.5	0.5	0.5	0.5	2.5
4	Lok Vikas Kendra- Tailoring Machine Support to SHGs for Livelihood Activity Hazira, Junagam, Mora, Damka, Vansva, Rajgari, Suwali & Bhatlai Villages	0.5	0.5	0.5	0.5	0.5	2.5
	Sub Total	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**12.5**
E	**Sports and Youth Development**						
1	Development of Playground for nurturing local talents for sports at Hazira, Mora, Damka, Junagam,Suwali, Bhatlai, Rajgari & Vansva Panchayat	0.5	0.5	0.5	0.5	0.5	2.5
2	Cricket Ground & running track construction work at Damka , Hazira & other near by Villages	1	1	1	1	1	5
3	Sport Material & Equipment support to the schools at Hazira, Damka & Junagam	0.25	0.25	0.25	0.25	0.25	1.25
5	Sport Promotion - High Performance Center (HPC)-Coaching, Training, Exposure to potential sportsperson	3	3	3	3	3	15
4	Provision of necessary equipment and infrastructure support for sports activities	0.5	0.5	0.5	0.5	0.5	2.5
	Sub Total	**5.25**	**5.25**	**5.25**	**5.25**	**5.25**	**26.25**
F	**Environment**						
1	Tree Plantation and Greening Drive-in villages and School Premise	0.25	0.25	0.25	0.25	0.25	1.25
2	Installation and promotions of solar energy in partnership with GEDA (Gujrat Energy development Agencies) solar roof top energy, solar water pump etc.	0.5	0.5	0	0	0	1
3	Mangrove conservation Project for Hazira, Suwali & Damka villages	0.5	0.5	0.5	0.5	0.5	2.5
4	Setting up Paper and Solid / Plastic waste recycling unit	0.5	0.5	0	0	0	1
	Sub Total	**1.75**	**1.75**	**0.75**	**0.75**	**0.75**	**5.75**
G	**Others**						
1	Model Village Development Project in 8 villages	6	6	7	7	7	33
2	Relief measure during natural calamity, pandemic etc. and support to differently abled child	0.4	0.4	0.4	0.4	0.4	2

CER Budget - Yearly (1-5 yrs.)		2023	2024	2025	2026	2027	Rs. In Crores
S. No.	Major activities	1st Year	2nd Year	3rd Year	4th Year	5th Year	Total Amount
3	Impact Assessment and monitoring of activities	0.1	0.1	0.1	0.1	0.1	0.5
	Sub Total	**6.5**	**6.5**	**7.5**	**7.5**	**7.5**	**35.5**
	Grand Total	**29.55**	**27.95**	**27.2**	**27.7**	**27.6**	**140**

12.3.15 The existing capital cost of project was Rs.35,000 Crores. The capital cost of the project is estimated at Rs. 35,145 Crores and the capital cost for environmental protection measures is proposed as Rs. 1622 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 151.02 Crores. The employment generation from the proposed project / expansion is direct 1750 and indirect 5250. The details of cost for environmental protection measures is as follows:

S. No	Description of Item	Existing (Rs. In crores)		Proposed expansion (Rs. in Crores)	
		Capital cost	Recurring cost	Capital cost	Recurring cost
1	Air Pollution Control / Noise Management	244.0	143.0	801.0	80.5
2	Water Pollution Control	313.0	16.5	550.0	55.0
3	Solid and Hazardous Waste Management	120.0	2.0	150.0	2.5
4	Environment Monitoring & Management	27.5	1.50	55.0	6.52
5	Occupational Health & Safety	2.5	4.0	--	6.0
9	Greenbelt Development including Transplantation and Compensatory Afforestation	6.5	0.75	20	0.5
10.	Addressal of Public Consultation concerns		--	46	--
Total		**713.5**	**167.75**	**1,622**	**151.02**

12.3.16 Existing green belt has been developed in 161 Ha area which is about 21.46% of the total project area of 750.18 Ha. with total sapling of 2,87,429 Trees. Proposed greenbelt will be developed in 101.18 Ha. Thus, total of 272.18 Ha area (33% of total project area) will be developed as greenbelt. A 9 M wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CBCB guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 3,93,021 saplings will be planted and nurtured in 272.18 Ha. in next 3 years under proposed expansion.

Project Proponent has reported that from the proposed project area, around 20,000 nos. of trees to be removed. These trees will be transplanted maximum possible inside the boundary in

addition to greenbelt development proposed. For transplantation, AMNSI will consult local forest department for suitable technical equipment and expertise. Balance trees which cannot be transplanted will be removed with necessary statutory permission as per local guidelines. To compensate the balance removed trees, AMNSI will go for compensatory forestation as per the directives of the State Forest Department.

12.3.17 It has been reported that there was no litigation against this project till ToR was granted on 03.12.2021. However, three cases were filed against AMNSI between grant of ToR dated 03.12.2021 and EC application (Form-2) initially submitted on 04.08.2022. Out of which, two cases were filed before the EC application and one case filed after the EC application. Details of the Court Cases are as follows:

1. **Writ petition no.14 of 2022 (PIL) filled by Roshni Patel on 01.02.2022 at Hon'ble High Court of Gujarat** alleging "illegal and unauthorized discharge of industrial effluents into the estuary zone of river Tapi ("Tapi Estuary") in violation of the conditions prescribed in the environmental clearance ("EC") and Consolidated Consent and Authorization ("CCA").

    - AMNSI reply: Discharge of treated wastewater is a regulated activity in the CRZ legal framework. CRZ Notification, 2011 allows facilities to discharge treated effluents into a water course in the CRZ area, subject to approval under the Water Act.
    - The PP has obtained requisite approvals for discharge of treated effluents into estuary zone of River Tapi from GPCB.
    - Out of 5 divisions, 3 divisions of AMNS have been authorised as per GPCB Consent, to discharge treated effluents into Tapi estuary i.e. 1) HRC Division 2) Plate Mill Division 3) Power Division.
    - As far as EC dated 09.03.2016 for implementation of zero effluent discharge condition is concerned, the facilities for Zero Liquid Discharge (ZLD) were not get implemented due to fund constraints and legal cases at the NCLT. ZLD shall be implemented under the Modernisation Proposal for which EC was granted on 02.03.2022. As committed in the Modernisation proposal, ZLD will be implemented before 31.03.2023.
    - Current Status: Court has given order on 04.07.2022. As per the Hon'ble court order, IIT Gandhinagar is appointed as the court commissioner to look into the points of discharge of effluents and quality of effluents at discharge points. Lats listed on 22.08.2022 and will be next listed for hearing on 02.09.2022.

2. **Special civil Application 3931 of 2022 filled by M/s ESSAR Bulk Terminal Limited (EBTL)** in the High Court of Gujarat at Ahmedabad 0n 17.02.2022 alleging that 35 Ha back up area allocated to EBTL by GMB is being used by AMNSI for existing raw material usage and sought cancellation of TOR issued on grounds of misrepresentation in the TOR application.

    - AMNSI submitted the detailed reply to MoEF&CC and GPCB on 01.03.2022. However, this area is presently excluded from the proposed plant area.
    - Current Status: Last listed on 02.08.2022. The case is next listed for hearing on 14.09.2022.

3. A case filed by **Thakorbhai Vallabhbhai Khalasi at Hon'ble National Green Tribunal vide Appeal No. 27/2022.**

- Current Status: The case first admitted on 08.08.2022 and notices served to parties. Mr.Thakorbhai , Hazira filed the case in NGT, Pune against MoEF&CC for challenging the Modification Project EC dated: 02.03.2022. As per NGT rules, petitioner allow to file the case within 30 days from the date of EC granted and may allow to file up to 60 days with proper justification.
- In this case, the petitioner filed the case on 58th day with the justification stating that the company had not given the required paper ad for the EC within 7 days. This is not the correct fact and the PP have given paper ad on 6th day i.e on 08.03.2022, also they had uploaded the EC copy on their website (www.amns.in).
- The case is next listed for hearing on 07.09.2022.

Certified Compliance Report from Regional Office:

12.3.18 The Status of compliance of earlier EC was obtained from Regional Office, Bhopal vide letter no. 5-52/2009(Env)/072 dated 01.04.2021 in the name of M/s. ArcelorMittal Nippon Steel India Limited. The Action taken report regarding the partially/non-complied condition was submitted to the Regional officer MoEF&CC, vide email on dated 26.11.2021 MoEF&CC (IRO), Gandhinagar evaluated the same and has issued letter dated 07.01.2022. The details of the observations made by IRO in the report dated 07.01.2022 along with its re-assessment / present status as furnished by the PP is given as below:

Referred EC Conditions	**Remarks of MoEF&CC, Regional office, Bhopal**	**Remarks of MoEF&CC, IRO, Gandhinagar based on the updated compliance status furnished by the Project Proponent and site visit on 17.12.2021 & 18.12.2021.**
Specific Condition No. (vi) – EC(09/03/2016): The Standards issued by the Ministry vide G.S.R. No. 277(E) dated 31st March, 2012 regarding iron and steel plant shall be followed.	Point-wise compliance status of G.S.R. No. 277 (E) dated 31st March, 2012 has not been submitted.	Company is complying with the MoEF&CC standards issued vide G.S.R. No. 277(E) dated 31st March, 2012. Please find the pointwise compliance status submitted**.** **Observation:** **Complied** The PP has not installed cove oven plant. The parameters mentioned in GSR No 277 (E) for Sintering plant, rolling mills, arc furnace etc. were found in the prescribed limits. The suspended solid in the effluent of blast furnace and fugitive emissions were found tobe very close to the prescribed limit. Measures should be taken to prevent its limitto cross beyond the prescribed one. The records were checked at site and it was foundthat the monitoring of parameters marked in G.S.R. No 277 were carried out by Pollucon Laboratories Pvt Ltd a NABL accredited

Referred EC Conditions	Remarks of MoEF&CC, Regional office, Bhopal	Remarks of MoEF&CC, IRO, Gandhinagar based on the updated compliance status furnished by the Project Proponent and site visit on 17.12.2021 & 18.12.2021.
		laboratory. In view of the information furnished by the project proponent and as per the site observations noted above, the stipulated condition is considered as complied.
Specific Condition No. (x) – EC(09/03/2016): 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises. General Condition No. (iv) – EC(09/03/2016): Industrial waste water shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose. Specific Condition No. (viii) – EC(05/07/2010): An effort shall be made not to discharge any treated waste water outside the premises and adopt'Zero' effluent discharge. An effort shall be made to recycle and reuse the maximum treated wastewater in the process itself to reduce quantity of water consumption and effluent discharge into Tapi estuary. Only excess treated waste water after meeting the norms of Gujarat Pollution Control Board or as mentioned in E(P) Act, whichever	Mixing of industrial waste water with storm water drains was observed.	▪ As per the prevailing metallurgical industrial practices in 1990s, the plant designed for carrying the Storm water & Industrial water in the common channels. Now separating the channels in the current plant layout is difficult. PP has undertaken pipeline job to separate effluentwater from storm water. This job is in progress & more than 50% work is completed. The photographs of the laid pipeline and proposed pipeline network drawing are submitted**.** ▪ As per Environment Clearances granted earlier, AMNS has permission to discharge water to the Tapi Estuary. ▪ As per latest Consent to Operate (CTO) granted by GPCB, Company has permission to discharge the water into Tapi Estuary for HRC Division, Plate Mill Division and Power Division. (Total Permission - 27572 M3/day) and currently around 12,000 m3/day treated effluent is being discharged into Tapi estuary after confirming GPCB discharge standards. ▪ In 2016 EC, the Ministry has recommended Zero liquid discharge (ZLD) for the proposed expansion facilities, however due to Financial Implications and NCLT earlier management could not be able to complete the ZLD. Now the new management i.e. AMNSI has taken over ZLD project. Pipe Line work is already started. Expected to complete in phases. First Phase will be

<table>
<tr><th>Referred EC Conditions</th><th>Remarks of MoEF&CC, Regional office, Bhopal</th><th>Remarks of MoEF&CC, IRO, Gandhinagar based on the updated compliance status furnished by the Project Proponent and site visit on 17.12.2021 & 18.12.2021.</th></tr>
<tr><td>are more stringent, shall be discharged to Tapi Estuary through RCC Pucca Channels.

<u>General Condition No. (iv) – EC(05/07/2010):</u>
Industrial waste water shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.</td><td></td><td>completed by Jan’23 and remaining Phase will be completed by Dec’23.

Observation:

Not Complied
<table>
<tr><th rowspan="2">Month</th><th colspan="3">Generation in M3</th><th rowspan="2">Treatment / recycling / reuse</th><th rowspan="2">Discharge</th></tr>
<tr><th>Min</th><th>Max</th><th>Avg</th></tr>
<tr><td>June 21</td><td>23200</td><td>26125</td><td>24739</td><td>12274</td><td>12465</td></tr>
<tr><td>July 21</td><td>23130</td><td>26700</td><td>25817</td><td>12808</td><td>13008</td></tr>
<tr><td>Aug 21</td><td>23120</td><td>27142</td><td>26390</td><td>13093</td><td>13297</td></tr>
<tr><td>Sep 21</td><td>23350</td><td>26253</td><td>24095</td><td>11954</td><td>12141</td></tr>
<tr><td>Oct 21</td><td>23256</td><td>25954</td><td>24978</td><td>12392</td><td>12586</td></tr>
<tr><td>Nov 21</td><td>24505</td><td>27358</td><td>26397</td><td>13096</td><td>13300</td></tr>
</table>
The treated waste water was used in various system making process within the unit. But a huge volume of water from the Blast Furnace unit were discharged into a drain which was going out of the premises. The water was accumulated inside the premises of blast furnace unit and the raw material handling in the unit was also very poor.
The units were draining water outside the premises at three locations for which they have taken the consent from GPCB. The water quality monitoring station was installed.
at the outlet. The results were within the prescribed limits.

The unit has taken an initiative to achieve the</td></tr>
</table>

Referred EC Conditions	Remarks of MoEF&CC, Regional office, Bhopal	Remarks of MoEF&CC, IRO, Gandhinagar based on the updated compliance status furnished by the Project Proponent and site visit on 17.12.2021 & 18.12.2021.
		target of ZLD and in these directions they have started the construction for separating storm water from the industrial effluent. The Pipe Line work was seen during site inspection. It was informed that they are planning to execute the entire process in phases and the First Phase will most likely becompleted by January 2023 and remaining Phase will be completed by December 2023. At present it is directed to make necessary arrangement to check the outfall of waterfrom the blast furnace unit. The action takenshould be intimated within 15 days to the regional office Gandhinagar. In view of the above and as per site observation the unit are in progress stage to achieve the mandate of ZLD. Although in the present scenario the condition is considered as not complied.
<u>Specific Condition No. (xi) – EC(09/03/2016):</u> Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. <u>Standard Condition No. (xi) – EC(05/07/2010):</u> Ground water monitoring around the	Total residual chlorine from STP (600 m3 and 400 m3) and total dissolved solids exceededthe norms.	For STPs, Residual Chlorine should be maintained above 0.5 ppm to ensure the disinfection and GPCB norms for STP is also insisting for minimum 0.5 ppm of Residual Chlorine. NABL approved & MoEF&CC recognized third Party agency is collecting and analyzing the STP samples regularly as per the Guidelines and the results are found within the limits and the copy of the STP samples analysis report is submitted**.** Groundwater monitoring is beingcarried out regularly and reports are submitted along with EC compliance report. **Complied** The effluents were monitored at three outlets

Referred EC Conditions	Remarks of MoEF&CC, Regional office, Bhopal	Remarks of MoEF&CC, IRO, Gandhinagar based on the updated compliance status furnished by the Project Proponent and site visit on 17.12.2021 & 18.12.2021.
solid waste disposal site / secured landfill (SLF) shall be carried out regularly and report submitted to the Ministry's Regional Office at Bhopal, CPCB and GPCB.		along with heavy metal monitoring. The monitoring for ground water were carried out by NABL/MoEFCC accredited laboratory at slag dumping area behind steel melting plant 1 on 27th April 2021 and the results were found within the prescribed limits. It is directed to submit the ground water monitoring data around secure land fill area. For STPs, Residual Chlorine was maintained as per GPCB norms of minimum 0.5. The monitoring reports submitted by third party (M/s. Pollucon Laboratories Pvt. Ltd.) approved by NABL & Recognized by MoEF&CC, New Delhi was verified and it was found that the parameters were within the prescribed limits. Although the TDS wasfound be very close to the maximum prescribed limit. In view of the above, the condition is considered as complied.
<u>Specific Condition No. (xii) – EC(09/03/2016) & Specific Condition No. (x) – EC(05/07/2010):</u> Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid / hazardous waste shall be submitted to the Ministry's Regional Office, SPCB and CPCB.	ETP Sludge was scatterednear the ETP & also huge quantity of sludge was stored in open	All the Solid waste & Hazardous waste's Handling, Storage, Utilization and disposal are being done in environment friendly manner as per the statutory guidelines. ETP sludge is generated in dry condition. Dedicated storage area has been developed to store & contain ETP Sludge properly. ETP sludge is being recycled maximum in our Sinter plant operations and remaining isbeing disposed to GPCB approved TSDFsites. ETP sludge storage area photograph submitted**.** Also, we are proposed to lay the paved approach roads for the ETP storage area and develop the Greenbelt around the storagearea by Apr'2022. **Complied**

Referred EC Conditions	Remarks of MoEF&CC, Regional office, Bhopal	Remarks of MoEF&CC, IRO, Gandhinagar based on the updated compliance status furnished by the Project Proponent and site visit on 17.12.2021 & 18.12.2021.
		No such sludge was observed near the ETP plant. It was disposed at TSDF site. A drain was trenched at the ETP site where water was seen accumulated, which needs to be filled ina time bound manner and the report should be submitted to the IRO Gandhinagar. The unit has provided two sludge storage area which were covered by the shed. There needs an improvement in the design of sludge storage area so that rainwater could not mix with the solid waste. The garland drain should be constructed all around to prevent the mixing along with a U shape ramp for loading and unloading of sludge. The area has thepotential to develop a green belt all around. The roads around storage area should be made pucca in a time bound manner to prevent the fugitive emissions. In view of the above, the condition is considered as complied.
Specific Condition No. (xiii) – EC(09/03/2016): A time bound action plan shall be submitted to reduce solid waste generated due to the project related activities, its proper utilization and disposal.	Time bound action plan with reference to solid waste used for backfilling has not been submitted.	Most of the material is recycled / reusedinside the plant. Time bound action plan for Solid Waste Utilization is prepared and submitted in the Modification Project EIA report and the same is submitted for your consideration please. **Complied** As per the documents provided at site it can be concluded that the unit were utilizing 80%of solid waste in house whereas they are exploring the possibilities with international technology supplier/CSIR labs to utilize 100% waste. The slag storage area was seen and it was informed that they were in negotiation with NHAI to use the slag in road construction. They are also in negotiation in RDSO for

Referred EC Conditions	Remarks of MoEF&CC, Regional office, Bhopal	Remarks of MoEF&CC, IRO, Gandhinagar based on the updated compliance status furnished by the Project Proponent and site visit on 17.12.2021 & 18.12.2021.
		replacing ballest with steel slag. In view of the above the condition is considered as complied.
Specific Condition No. (xiv) – EC(09/03/2016): Proper utilization of fly ash shall be ensured as per Fly ash Notification, 1999 and Subsequent amendment in 2003 and 2009. All the fly ash shallbe provided to cement and brick manufactures for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office at Chennai.	Fly ash utilization was not ensured stating that there is no generation of fly ash	AMNS India is not generating Fly ash and hence requesting for removing this condition. **Complied** No generation of fly ash were seen during site inspection. They don't have coal-based power plant.
Specific Condition No. (xv) – EC(09/03/2016): A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter. Specific Condition No. (xvii) – EC(09/03/2016): At least 5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village panchayat and District Administration. Action taken report in this regard shall be submitted to	Risk and Disaster Management plan, details of expenditure incurred and funds earmarked for Enterprise soc ial commitment, details of policy towards CER, compliance status of CC&A and EIA/EMP report has not been submitted.	Risk and Disaster Management Plan submitted to MoEF&CC / GPCB / CPCB through EC Compliance report dated 31st May, 2021 and copy of letter submitted**.** PP has undertaken community development activities for nearby villages. Till 2019, the unit was under NCLT process and no major CSR activities was carried out.Last year CSR Activity details and action plan for next 05 years is submitted**.** CCA Compliance Report already submitted in the last compliance report of Oct'20 to Mar'21 dated 31st May, 2021 Our new management taken over the unit recently and we are framing the website in consultation with the parent company. After framing the new website, it will be uploadedas per the requirement. We will be getting system ready by Jan-22. **Partly Complied**

Referred EC Conditions	Remarks of MoEF&CC, Regional office, Bhopal	Remarks of MoEF&CC, IRO, Gandhinagar based on the updated compliance status furnished by the Project Proponent and site visit on 17.12.2021 & 18.12.2021.
the Ministry's Regional Office. Specific Condition No. (xix) – EC(09/03/2016): The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/ procedure to being into focus any infringement / deviation / violation of environmental or forest norms/ conditions, (ii)Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/ violation environmental norms to the Board of Directors of the company and/ or stakeholders or shareholders. General Condition No. (i) – EC(09/03/2016): The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB) and the State Government. General Condition No. (viii) – EC(09/03/2016): The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report. Further, the company must undertake socio-economic development activities in the		The unit has submitted the risk and disaster management plan. CSR activities were undertaken in and around the nearby villages of proposed expansion project. An amount of Rs. 16 crores have been dedicated for CSR activities for five years and the company hasto identify stakeholders for the planning and implementation of CSR activities. Proposed activities with its estimated cost forbenefitting the society at large and the local rural community in particular for a period of5 years was provided the PP. The CCA compliance report was already submitted to IRO Bhopal. During the sitevisit, it was noticed that the project proponent is complying with all the environmental protection measures like operation of ETP, air pollution control devices, fume extraction system etc., the details of which were discussed in the certified compliance report. The unit has upgraded the Fume Extraction System of to reduce the gas emissions. The unit has taken proactive steps towards compliance of conditions stipulated by the Ministry. Due to change in the ownership followed by a COVID setback the pace of implementation of the conditions were slow. It was promised by the PP to achieve the compliance in a planned and time bound manner.

Referred EC Conditions	Remarks of MoEF&CC, Regional office, Bhopal	Remarks of MoEF&CC, IRO, Gandhinagar based on the updated compliance status furnished by the Project Proponent and site visit on 17.12.2021 & 18.12.2021.
surrounding villages like community development programs, educational programs, drinking water supply and health care etc. General Condition No. (vi) – EC(05/07/2010): The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programs, educational programs, drinking water supply and health care etc. General Condition No. (ix) – EC(05/07/2010): The project proponent shall upload the status of compliance of the stipulated environment clearance condition, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF&CC at Bhopal. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.		
General Condition No. (x) –	Documentary proof of	Integrated Steel complex is located in the

Referred EC Conditions	Remarks of MoEF&CC, Regional office, Bhopal	Remarks of MoEF&CC, IRO, Gandhinagar based on the updated compliance status furnished by the Project Proponent and site visit on 17.12.2021 & 18.12.2021.
EC(09/03/2016): A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The Clearance letter shall also be put on the website of the company by the proponent. General Condition No. (viii) – EC(05/07/2010): A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila parishad / Municipal Corporation, Urban Local body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	the information that industry is falling under Hazira notified Area has not beenfurnished.	Hazira Notified area from the inception of our operation and the Hazira Notified area map highlighting our boundary is submitted. **Complied** The map shown during site inspection affirms that the unit falls under Hazira Notified area. Whereas an area of approx. 38ha falls outside the notified area.
General Condition No. (xi) – EC (09/03/2016): The project proponent shall upload the status of compliance of the stipulated environment clearance condition, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEFCC at Bhopal. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM_{10}, SO_2, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects	Compliance status of EC conditions and monitored data has not been uploaded on company's website.	New management taken over the unit recently and we are framing the website in consultation with the parent company. After framing the new website, it will be uploaded as per the requirement. We will be getting system ready by Jan-22. **Not complied** The unit is in process of making the website.It was informed that it will get ready byJanuary 2021 and after that all the documentswill be uploaded.

Referred EC Conditions	Remarks of MoEF&CC, Regional office, Bhopal	Remarks of MoEF&CC, IRO, Gandhinagar based on the updated compliance status furnished by the Project Proponent and site visit on 17.12.2021 & 18.12.2021.
shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.		
Specific Condition No. (vii) – EC (05/07/2010): Total water requirement from Singanpore Weir shall not exceed 1, 20, 711 m3 / day. No ground water shall be used. Separate drains for domestic, process, strom water shall be provided in consultation with GPCB. All the other effluents shall be treated in plant – wise independent waste water treatment system. BF – GCP and coal washerywater shall be treated in thickener and used in the pig casting machine. Acidic and alkaline effluent fromDM water plant shall be neutralizedand reused in the plant through ash pond. Oil traps shall be provided to remove oil and grease. All the treated waste water from process shall be treated and recycled andreused for ash handling, dust suppression and green belt development. The domestic wastewater shall be treated in STP and treated wastewater after conforming to the prescribed standards shall be used for green belt development.	Month-wise da ily maximum and minimum water usage data has not been submitted	Month wise Daily Maximum & Minimum water usage data is being submitted along with Half yearly EC compliance report from2021 and the month wise max & min water usage data for 2021 is submitted**.** **Complied** The unit has provided the monthly data on water uses. It was found that the uses were within the prescribed limits.
Specific Condition No. (vii) – EC (05/07/2010): Total water requirement from Singanpore Weir shall not exceed 1, 20, 711 m3 / day. No ground water shall be used. Separate drains for domestic, process, strom water shall	Water consumption data per ton of steel as prescribed by standard has not been submitted.	Specific water consumption details are being maintained and Water consumption details for FY 2020-21 is 3.78 m^3/TCS. **Complied** The unit has provided the water

Referred EC Conditions	Remarks of MoEF&CC, Regional office, Bhopal	Remarks of MoEF&CC, IRO, Gandhinagar based on the updated compliance status furnished by the Project Proponent and site visit on 17.12.2021 & 18.12.2021.
be provided in consultation with GPCB. All the other effluents shall be treated in plant – wise independent waste water treatment system. BF – GCP and coal washerywater shall be treated in thickener and used in the pig casting machine. Acidic and alkaline effluent from DM water plant shall be neutralized and reused in the plant through ash pond. Oil traps shall be provided to remove oil and grease. All the treated waste water from process shall be treated and recycled and reused for ash handling, dust suppression and green beltdevelopment. The domestic wastewater shall be treated in STP and treated wastewater after conforming to the prescribed standards shall be used for green belt development.		consumption/ton of steel. It varied from 3.68 m3/TCS in FY 2019-20 to 3.84 m^3/TCS in FY 3.68 m^3/TCS.
<u>Specific Condition No. (xi) – EC (05/07/2010):</u> As proposed, green belt for adequate width and density shall be providedin at least 33 % of plant area and along the boundary wall of the site as per the CPCB guidelines.	Details of total area utilized for greenbelt development has not beensubmitted.	Current Green belt area is around 22%. Updated Layout of the Greenbelt prepared with detailed action plan for meeting the 33% target by Dec'2024. Action plan & Layout submitted**.** **Complied** The unit has submitted the green belt development plan. The layout plan was seen at the site. At present 136.05 ha (20.31%) of plant area is under green belt and the unit is planning to add another 83 ha (12.39%) under green belt. The total green belt will beapprox. 32.69% in the plant area.
<u>Specific Condition No. (xiv) – EC (05/07/2010):</u>	Point-wise compliance status of Corporate	Point wise compliance on Corporate Responsibility for Environment Protection

Referred EC Conditions	Remarks of MoEF&CC, Regional office, Bhopal	Remarks of MoEF&CC, IRO, Gandhinagar based on the updated compliance status furnished by the Project Proponent and site visit on 17.12.2021 & 18.12.2021.
The company shall comply with all the recommendations / action points made in the Charter on Corporate Responsibility for Environment Protection (CREPs) and progress report shall be submitted to MoEF/CPCB.	Responsibility for Environmental Protection (CREPs) has not been submitted.	(CREPs) submitted**.** **Complied** The unit has submitted the point wise compliance of CREPs. The measures were highlighted to reduce 100% fugitive emissions by installing secondary de-dustingfacilities.
<u>General Condition No. (xii) – EC (05/07/2010):</u> The project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available withthe SPCB and may also be seen at website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspaper that are widely circulated in the region of which one should be in vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional Office at Bhopal. <u>General Condition No. (xiii) – EC (05/07/2010):</u> The Project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of theproject by the concerned authorities and the date of commencing the land development work.	Details of newspaper advertisement of EC granted, financial closure and final approval of project, date of commencing land development work has not been submitted.	Basically, this 2010 EC is an administrative one for merging of earlier separate ECs obtained for our two units in 2007. There was no change in production as per this 2010 EC. Paper advertisements for the 2007 ECs only were given by the earlier management and the copy the same is submitted. We sincerely apologized for this pending action. We will assure to comply this point for all the ECs hereafter. **Partly Complied** The unit has published the public notice in two newspapers on 14th March 2016. The PPhas apologized for the action taken in the pastand ensured that no such lapse will occur in future correspondence.

The details of non-compliance and response/ATR of PP are as follows:

Sl. No.	Non-compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO /response by PP
			EC date	Specific	General	
1	The project proponent shall upload the status of compliance of the stipulated environment clearance condition, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF&CC at Bhopal. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Compliance status of EC conditions and monitored data has not been uploaded on company's website.	09.03.2016		(xi)	**Complied,** EC & Latest Compliance report uploaded on website.
2	'Zero' effluent discharge shall be strictly followed, and no wastewater shall be discharged outside the premises.	Mixing of industrial wastewater with storm water drains was observed	09.03.2016	(x)		As per Environment Clearances granted earlier, AMNS has permission to discharge water to the Tapi Estuary. As per latest Consent to Operate (CTO)

Sl. No.	Non-compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO /response by PP
			EC date	Specific	General	
						granted by GPCB, Company has permission to discharge the water into Tapi Estuary for HRC Division, Plate Mill Division and Power Division. (Total Permission - 27572 M3/day) and currently around 12,000 m3/day treated effluent is being discharged into Tapi estuary after confirming GPCB discharge standards. In 2016 EC, Ministry has recommended Zero liquid discharge (ZLD) for the proposed expansion facilities, however due to Financial Implications and NCLT

Sl. No.	Non-compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO /response by PP
			EC date	Specific	General	
						earlier management could not be able to complete the ZLD. Now the new management i.e. AMNSI has taken over ZLD project. Pipeline work is already started. Entire project expected to complete in phases. First Phase will be completed by Dec'22 and remaining Phase will be completed by Mar'23. **Compliance in progress and will be complied by Mar'2023 as permitted by MoEF&CC.**
3	At least 5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on locals need and item-wise details along with time bound action plan shall be	Details of expenditure incurred and funds earmarked for Enterprise social commitment,	09.03.2016	xvii		Detailed action plan for this ESC with committee details, timeline & budget to IRO, Gandhinagar

Sl. No.	Non-compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO /response by PP
			EC date	Specific	General	
	prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office	details of policy towards CER, compliance status of CC&A and EIA/EMP report has not been submitted				on 01.03.2022 and as per the commitment, ESC projects will be completed by Mar'2023. **Compliance in progress and will be complied by Mar'2023 as committed to IRO, Gandhinagar**
4	The project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspaper that are widely circulated in the region of which one should be in vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional Office at Bhopal	Details of newspaper advertisement of EC granted, financial closure and final approval of project, date of commencing land development work has not been submitted.	05.07.2022		xii	2010 EC is an administrative one for merging of earlier separate ECs obtained for our two units in 2007. There was no change in production as per this 2010 EC. Paper advertisements for the 2007 ECs only were given by the earlier management and the copy the same is submitted.

Sl. No.	Non-compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO /response by PP
			EC date	Specific	General	
						We sincerely apologize for this pending action. We will assure to comply this point for all the ECs hereafter.

Written representations:

12.3.19 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 30.08.2022 through email dated 30.08.2022 submitted the following information w.r.t. to the following:

Sl. No.	Point raised by EAC	Submission by PP
1.	Brief Details of Plant acquisition	Essar Steel India Ltd. (ESIL) underwent a successful corporate insolvency resolution process under the Insolvency & Bankruptcy Code, 2016. Through the said process, a resolution plan submitted by ArcelorMittal Nippon Steel India Limited (AM/NS) was approved by the Committee of Creditors of ESIL on 27.03.2019. The Resolution Plan was implemented with effect from 16.12.2019. Subsequent to the implementation of the Resolution Plan, the name of the company was changed to "ArcelorMittal Nippon Steel India Limited" (AM/NS) with effect from 08.01.2020. The initial focus of AM/NS was to stabilize and increase the production of current steel making facility and this objective has been achieved successfully over the last two year period. In line with AM/NS's aggressive growth plans in India, the company has embarked upon the journey to significantly expand its steelmaking facilities at Hazira. Accordingly, AM/NS India Limited plans to expand its steelmaking capacities from 9.6 to 15.6 Million Ton Per Annum (MTPA) with an investment outlay of INR 35,145 Crores. This expansion is in line with National Steel Policy of achieving 300 MTPA capacity by year 2030 as well as a big leap towards 'Atmanirbhar Bharat' by focusing on producing steel which is currently being imported
2.	Action plan for reduction of PM10 & PM2.5 Emission	• High PM_{10} emission may be due to the dust emissions from the major industries operating in Hazira industrial area as well as fugitive emission due to traffic movement.

Sl. No.	Point raised by EAC	Submission by PP
		• AMNSI has committed for reduction of dust emission from our operation by proposing to install 45 nos. of Air Pollution Control devices which includes Bag filters, Venturi scrubbers, ESP etc. at different units of the plant at a cost of Rs. 173 Crores and in this regards action plan has also been submitted to the GPCB. • Implementation of these control measures were delayed due to NCLT process. However, after the new management has taken over, implementation has started in October 2020. Till date approx. 80% facilities have been installed. Remaining modifications including installation of Fume Extraction Systems for Steel Melting Plant and BF-1 stock house de-dusting system are under implementation and will be completed soon. • After implementation of these facilities, it is expected that PM_{10} & $PM_{2.5}$ values will be reduced drastically from our operation. • As suggested during the EAC meeting required numbers of water sprinkler/ mist canons/ fog based dust suppression system will be installed for further reduction of dust emission.
3.	Undertaking to carry out CER activities	Undertaking to carry out CER activities with total budget of INR 140 Crore in 5 years as well as to develop nearby 8 villages as model villages is submitted vide letter dated 30.08.2022. Revised Action Plan for budget of Rs. 140 Crore is updated at para 12.3.14 above.

Deliberations by the Committee

12.3.20 The Committee noted the following:

1. The instant proposal is for expansion of Integrated Steel Plant from 9.6 to 15.6 MTPA (Liquid Steel).
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

5. The total project area is 824.84 Ha. [Industrial: 729.44 Ha, Private: 8.91 Ha, Forest land 65.73 Ha]. The land required for proposed expansion is 74.64 Ha which comprises of 65.73 Ha Forest land which is under possession (Stage-II FC is available) and 8.91 Ha private land (direct purchase from Land owners).

6. The total water requirement (Existing = 145839 m^3/day + Proposed = 91,560 m^3/day) is estimated to be 237399 m^3/day which will be sourced from Tapi River (227439 m^3/day) and Effluent Treatment Plant (9,960 m^3/day).

7. The project proponent may explore the possibilities for reduction of water and try to minimize the usage of water less than 3.5 KLD per ton of Steel.

8. Arabian Sea (1 Km), Tapi Estuary (0.5 Km), Hazira village pond, Suvali village pond, Mora village pond, Junagam village pond, Junagam village pond exists within the study area. The water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.

9. The EAC noted that three cases have been filed against the project viz., (1) Writ petition no.14 of 2022 (PIL) filled by Roshni Patel on 01.02.2022 at Hon'ble High Court of Gujarat, (2) Special Civil Application 3931 of 2022 filled by M/s ESSAR Bulk Terminal Limited (EBTL) in the High Court of Gujarat at Ahmedabad on 17.02.2022 and (3) A case filed by Thakorbhai Vallabhbhai Khalasi at Hon'ble National Green Tribunal vide Appeal No. 27/2022. All the three cases are listed for next hearing on 02.09.2022, 14.09.2022 and 07.09.2022 respectively. The EAC deliberated the details of court cases and EAC is of the view that a specific condition in this regard needs to be stipulated in the EC letter, as, "*This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project".*

10. The EAC noted that from the proposed project area, around 20,000 nos. of trees to be removed. These trees will be transplanted maximum possible inside the boundary in addition to greenbelt development proposed. Balance trees which cannot be transplanted will be removed with necessary statutory permission as per local guidelines.

11. Three Schedule-I species i.e. Pea fowl (Pavo cristatus), White-rumped Vulture (Gyps bengalensis) and Leopard (Panthera pardus) as per Wild Life Protection Act (1972) are found in the buffer zone of the project area. Wildlife Conservation Plan is prepared and approved by PCCF Gujarat vide letter No. WLP/32/C/86b-866/2021-22 dated 15.01.2022 with a yearly approved budget of Rs. 2,75,000 / annum. The EAC deliberated the conservation plan and found in order.

12. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards except PM10. The EAC deliberated the action plan on the mitigation measures to reduce the particulate matter and found in order.

13. The Committee deliberated on the action plan and budget allocation for green belt development and found it satisfactory.

14. The Committee deliberated upon the certified compliance report of IRO, ATR submitted by PP and review report of IRO along with action taken on the observations of IRO in the review report and EAC noted that PP shall complete the compliance of partly / non-complied conditions as per the Action Plan submitted with timelines and a report needs to be submitted within 6 months from grant of EC to the IRO, MoEFCC.

15. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.

16. 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.

17. The Committee also deliberated on the written submission of PP on the issues raised by EAC during meeting and found it satisfactory. EAC recommended that the written submission also needs to be uploaded on Parivesh portal as the whole process is online.

18. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

19. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

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

A. Specific conditions

(i) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project. Project proponent shall abide by all the orders and judicial pronouncements, made from time to time, passed by Hon'ble Court.

(ii) 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.

(iii) The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(iv) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(v) Project Proponent shall strictly comply with the conditions observed as not complied / partially complied by the IRO, MoEFCC in the CCR as per the submitted action plan and timelines and compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

(vi) No construction activity/infringement will take place in the flood plain of the Tapi river situated in the vicinity of the project site.

(vii) Tree felling shall be limited to bare minimum. Transplantation shall be carried out to the maximum possible inside the boundary in addition to greenbelt development proposed in consultation to local forest department for suitable technical equipment and expertise. Tree Felling shall only be undertaken after obtaining necessary statutory permission. Compensatory afforestation shall be undertaken as per the directives of the Forest Department.

(viii) Solid waste utilization

a. Maximum 90 days of slag storage area shall be permitted inside the plant.
b. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
c. PP shall recycle/reuse 100 % solid waste generated in the plant.
d. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.
e. Used refractories shall be recycled as far as possible.

(ix) Sinter Plant

a. Sinter cooler waste recovery system to generate process steam or power shall be implemented within 3 years.
b. Equipped with MEROS technology to reduce emission of SO_2, NOx and heavy metals.

(x) Coke Oven Plant

a. Coke Dry Quenching (CDQ) shall be installed along with a modified wet quenching tower as a standby.
b. Coke Oven Gas shall be desulfurized.
c. Tar sludge shall be mixed with coal and reused.
d. Sulphur recovery and ammonia cracker shall be installed in Coke Oven Plant.

(xi) RO reject from BOD plant of Coke Oven shall not be used for slag quenching. Multi Effect Evaporator (MEE) shall be installed to handle RO reject and the MEE sludge shall be sent to TSDF.

(xii) BF 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.

(xiii) In SMS plant fume extraction system for all process equipment like converters, LRF shall be independent. Common Fume Extraction System (FES) shall be provided only for roof top emissions.

(xiv) Basic Oxygen Furnace (BOF) gas shall be cleaned dry. Dry type Gas cleaning type with TRT as proposed under the expansion shall be implemented.

(xv) Waste Heat Recovery system for charge preheating shall be included for 65 T Electric Arc Furnace.

(xvi) Submerged Arc Furnace and Electric Arc Furnace shall be closed type with 4^{th} hole extraction system.

(xvii) Acid Recovery Plant (ARP) and acid fume scrubber in stack emission shall be less than 10 mg/Nm^3 HCl.

(xviii) Hot Rolled Coil (HRC) production shall be done through hot charging minimum 65% and for billets hot charging shall be minimum 85%. Remaining shall be done through reheat furnace operating on natural gas/ Corex gas.

(xix) Cold Rolling Mill (CRM), color coating and galvanizing plants shall have CETP to treat and recycle the treated water from CRM complex. Sludge generated at CRM ETP shall be sent to TSDF.

(xx) The Oil scum and oily waste from CRM shall be sent to registered recyclers for oil recovery and incineration.

(xxi) Dust emission from Steel Plant stacks shall not exceed 30 mg/Nm^3.

(xxii) Water requirement of 237399 m^3/day for the plant shall be met from Tapi River and Effluent Treatment Plant (9,960 m^3/day). Ground water abstraction is not permitted.

(xxiii) As proposed, Project proponent shall explore the possibility to use 75000 KLD treated sewage water from Surat Municipal Corporation to be pumped from Surat to Hazira. Scheme for treated sewage water pumping shall be implemented as submitted in EIA/EMP Report to reduce the water withdrawal from Tapi River.

(xxiv) Zero Liquid Discharge (ZLD) scheme for the entire complex shall be implemented by March, 2023. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic waste water shall be treated in STP and treated water shall be re-used for greenbelt development and plantation and dust suppression. Sludge disposal plan shall be implemented as submitted in EIA/EMP Report.

(xxv) As submitted, raw material from Adani port to plant shall be transported through 1.3 Km conveyor along the Surat-Hazira state high way.

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

(xxvii) Parking area for trucks/dumpers shall be provided within the steel plant. No truck/dumper shall be parked outside the steel plant premises.

(xxviii) A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

(xxix) Three tier Green Belt shall be developed in at least 33% in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

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

(xxxi) All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have provision of garland drains and catch pits to trap run off material. Action plan submitted in the EIA/EMP Report shall be strictly implemented.

(xxxii) No parking on road side for any vehicle pertaining to the plant. Proper arrangement for vehicle parking within the plant will be made.

(xxxiii) Cyclone / disaster management shall be duly implemented as submitted in the EIA report.

(xxxiv) There is sparse mangrove vegetation. As a CER activity, AMNS shall put full efforts in conserving and improving the mangroves in consultation with District Forest Department.

(xxxv) All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

(xxxvi) As committed, PP shall adopt nearby 8 villages namely Hazira, Junagam, Mora, Damka, Vansva, Rajgari, Suwali & Bhatlai Villages and develop them into model villages in next 5 years.

(xxxvii) The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.

(xxxviii) The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the

measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

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

B. <u>General conditions</u>

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 06 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

iii. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.

iv. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

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

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

vii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.

viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.

ix. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).
x. Land-based APC system shall be installed to control coke pushing emissions.
xi. Monitor CO, HC and O2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.
xii. Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.
xiii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
xiv. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
v. Tyre washing facilities shall be provided at the entrance of the plant gates.
vi. Water meters shall be provided at the inlet to all unit processes in the steel plants.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

i. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.

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

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.

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

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.

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

iv. The Unit is using quartzite, coal and coke. Therefore, the industry is recommended to measure silica and coal dust exposures using personal and area air samplers in process plants and to be compared with Permissible exposure limits as per Indian Factories Act, 1948. Report to be submitted to the IRO, MoEFCC.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.

ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

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

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

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

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

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

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

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

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Agenda No. 12.4

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

[Proposal No. IA/WB/IND/6258/2007; File No. J-11011/724/2007-IA.II(I)]
[Consultant: Pioneer Enviro Laboratories & Consultants Pvt. Ltd.; Valid upto 21.09.2022]

12.4.1 M/s. Shyam Steel Manufacturing Limited has made an online application vide proposal no. IA/WB/IND/6258/2007, dated 17/07/2022 along with copy of EIA/EMP report and Form – 2 and certified compliance report seeking Environment Clearance (EC) under the provision of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous), 2(b) Mineral Beneficiation and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

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

Details submitted by the project proponent

12.4.3 The detail of the ToR is furnished as below:

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

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

12.4.5 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>91.34 Ha. (225.64 Acres)
[Private Land & Industrial Land]</td><td>--</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC, O.M. dated 7/10/2014.</td><td>Land use of the Plant site
<table>
<tr><th>S. No.</th><th>Type of Land</th><th>Area (in Ha.)</th><th>Area (in Ac.)</th><th>Status of Acquisition</th></tr>
<tr><td>1</td><td>Land registered</td><td>66.1</td><td>163.3</td><td>Already acquired (Existing project)</td></tr>
<tr><td>2</td><td>Agreement of sale executed</td><td>25.24</td><td>62.34</td><td>Out of 62.34 acres of proposed land, for 3.258 Acres has been registered and for remaining land agreement of sale is entered</td></tr>
<tr><td></td><td>Total land</td><td>91.34</td><td>225.64</td><td></td></tr>
</table>
Proposed expansion will be taken up partly in the Existing plant (i.e. 66.1 Ha. / 163.3 Acres) and partly in the land adjacent to the existing plant (i.e. 25.24 Ha./ 62.34 Acres).

<u>Status of land acquisition and conversion:</u>
• Additional land proposed as part of expansion is 25.24 Ha. (62.34 Acres). This land is in possession of Sister concern companies of Shyam Steel group.
• Copies of Agreement of sale between Shyam Steel Manufacturing Limited & other Sister concern companies is submitted.
• Applications have been submitted for land conversion by the aforementioned companies and copies in confirmation of the same is submitted.</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 colspan="2">• PP has assured that they will obtain the land conversion before commencement of expansion and affidavit dated 17.08.2022 confirming the same is submitted.</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project site: No habitation exists in the plant site
Study Area:
<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Jemua</td><td>0.1 kms.</td><td>W</td></tr></table>
54 No. of Villages in the Study Area</td><td>--</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all corners of the project site</td><td>The following are the Latitude and Longitude of all corners of the project site:
<table><tr><th>Point</th><th>Coordinates</th></tr><tr><td>Point # 1</td><td>23°34'05.43"N 87°05'42.40"E</td></tr><tr><td>Point # 2</td><td>23°33'50.57"N 87°05'35.69"E</td></tr><tr><td>Point # 3</td><td>23°33'42.29"N 87°05'20.44"E</td></tr><tr><td>Point # 4</td><td>23°33'33.53"N 87°04'51.96"E</td></tr><tr><td>Point # 5</td><td>23°33'42.34"N 87°04'53.35"E</td></tr><tr><td>Point # 6</td><td>23°33'42.98"N 87°04'45.38"E</td></tr><tr><td>Point # 7</td><td>23°33'56.37"N 87°04'45.60"E</td></tr><tr><td>Point # 8</td><td>23°34'07.38"N 87°04'52.87"E</td></tr><tr><td>Point # 9</td><td>23°34'03.60"N 87°05'06.58"E</td></tr><tr><td>Point # 10</td><td>23°34'07.01"N 87°05'22.52"E</td></tr></table></td><td>--</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>96 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>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drianage, Canal etc.,) exists within the project site as well as study area</td><td><u>Project Site:</u>
4 no.s of rain fed pond are present in the additional land proposed for expansion proposal and same will not be disturbed & will be utilised as water reservoirs.

<u>Study area:</u>
<table><tr><th>Water body</th><th>Distance</th><th>Direction</th></tr><tr><td>Damodar River</td><td>1.5 Kms.</td><td>NE</td></tr><tr><td>Galghata Jhor Nallah</td><td>0.5 Kms.</td><td>S</td></tr><tr><td>Chouphari Nallah</td><td>3.7 Kms.</td><td>SE</td></tr><tr><td>Mejia Bil Reservoir</td><td>1.3 Kms</td><td>E</td></tr></table></td><td>--</td></tr>
</table>

S.No.	Particulars	Details	Remarks
		4 no.s of rain fed pond are present in the additional land proposed for expansion proposal and same will not be disturbed & will be utilised as water reservoirs.	
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 (East Direction) – 3.0 Kms	

12.4.6 The existing plant was initially accorded the Environment Clearance from MoEF&CC vide F.No. J-11011/724/2007–IA.II(I) dated 4th August 2008. Subsequently another EC was obtained from MoEF&CC vide F.No. J-11011/724/2007 – IA II (I) dated 24th May 2019 for expansion of steel plant. Later obtained No Increase in Pollution Load Certificate (for capacities of EC dt. 4th August 2008) vide dt. vide letter no. 406-2N-29/2019 (E)-PT-II dt. 26th April 2021 from West Bengal Pollution Control Board (WBPCB) for increase in production capacity of Sponge Iron, Induction Furnaces & Rolling Mill. Accordingly obtained Consent to Operate (CTO) from West Bengal Pollution Control Board (WBPCB) which is regularly being renewed from WBPCB and latest CTO vide consent order No. CO110276, Date 29/03/ 2019 is valid up to 31/12/2023.

12.4.7 Implementation status of the existing EC:

S. No.	CTE obtained on 30.06.2003 (prior 2006)		EC accorded on 04.08.08, amended on 18.04.12, 06.02.15 & 27.02.17		EC accorded on 24-05-2019		Enhancement Accorded vide NIPL Dt.26.04.2021	Final Capacity of Operating units
	Units Permitted	**Implementation status**	**Units permitted**	**Implementation status**	**Units permitted**	**Implementation status**	**Units Permitted**	**Implementation status**
1.	Sponge Iron – 90,000 TPA (1 x 300 TPD)	Sponge Iron – 90,000 TPA In operation since 31.05.2005 (1st CTO)	Sponge Iron - 2,70,000 TPA (3 x 300 TPD) which amended to 3 x 100 TPD & 2 x 300 TPD vide	*In Operation (1,80,000 TPA):* • 60,000 TPA (2 x 100 TPD) – • in operation since 20.07.2009 (1st CTO) • 30,000 TPA (1 x 100 TPD) –	Sponge Iron 3,46,500 TPA (3 x 350 TPD)	3,46,500 TPA Construction under progress for 3 nos. of DRI Kilns	Sponge Iron 45,000 TPA (NIPL)	**Total – 2,25,000 TPA** 1,80,000TPA (EC) + 45,000 TPA (NIPL)

S. No.	CTE obtained on 30.06.2003 (prior 2006)		EC accorded on 04.08.08, amended on 18.04.12, 06.02.15 & 27.02.17		EC accorded on 24-05-2019		Enhancement Accorded vide NIPL Dt.26.04.2021	Final Capacity of Operating units
	Units Permitted	**Implementation status**	**Units permitted**	**Implementation status**	**Units permitted**	**Implementation status**	**Units Permitted**	**Implementation status**
			dt. 18.04.12	• in operation since 24.04.2015 (1st CTO) *Not Implemented* • 1,80,000 TPA (2 x 300 TPD) not implemented				
2.	---	---	Sponge Iron Briquette – 60,000 TPA	Not implemented /Dropped	---	---	---	---
3.	---	---	Coal / Coke / Chrome fines Briquette – 90,000 TPA	Not implemented	Coal / Coke / Chrome fines Briquette – 1,00,000 TPA	Yet to commence	---	---
4.	---	---	Mini Blast Furnace – 1,20,000 TPA	Not implemented/ Dropped	---	---	---	---
5.	---	---	Sinter Plant – 80,000 TPA	Not implemented/ Dropped	---	---	---	---
6.	---	---	Oxygen Plant – 4,000 TPA	Not implemented	Oxygen Plant – 4,000 TPA	Yet to commence	---	---
7.	---	---	Steel Melting Shop – 3,56,000 TPA	*In Operation:* • 3 x 11 T (1,08,900 TPA) in operation since 18.03.2016 (1st CTO) & 21.06.2018 (CTO Amended)	Steel Melting Shop 3,96,000 TPA (8 x 15 T)	1,59,750 TPA (Construction under progress 3 x 15 T Furnaces)	16,500 TPA (NIPL)	**Total - 2,34,300 TPA** 2,17,800 TPA (EC) + 16,500TPA (NIPL)

S. No.	CTE obtained on 30.06.2003 (prior 2006)		EC accorded on 04.08.08, amended on 18.04.12, 06.02.15 & 27.02.17		EC accorded on 24-05-2019		Enhancement Accorded vide NIPL Dt.26.04.2021	Final Capacity of Operating units
	Units Permitted	**Implementation status**	**Units permitted**	**Implementation status**	**Units permitted**	**Implementation status**	**Units Permitted**	**Implementation status**
				• 3 x 11 T (1,08,900 TPA) in operation since 09.12.2016 (1st CTO) & 27.09.2018 (CTO amended) *Not Implemented:* • Steel Melting Shop - 1,38,200 TPA				
8.	---	---	Captive Power Plant- 52 MW (32 MW WHRB + 20 MW FBC)	*In Operation:* • 8 MW WHRB Power Plant in operation since 04.11.2011 (1st CTO) & 27.04.2012 (Amended) • 7 MW FBC Power Plant in operation since 04.11.2011 (1st CTO). *Not implemented:* • 24 MW WHRB Power Plant & 13 MW FBC Power Plant	Power Plant – 51 MW (24 MW WHRB + 2MW WHRB 25 MW FBC)	*In Operation:* • 2 MW WHRB Power in operation since 04.08.2020 (1st CTO) • Construction under progress for WHRB • 24 MW (3 x 8 MW) & Ground Civil work is in progress for FBC	---	10MW WHRB + 7MW FBC
9.	---	---	Ferro Alloys – 55,000 TPA (3 x 9 MVA)	*In Operation:* • 1 x 9 MVA Ferro Alloys in operation since 04.11.20211 (1st CTO)	Ferro Alloys (2 x 9 MVA)	Yet to commence	---	32,400TPA (2 X 9MVA)

S. No.	CTE obtained on 30.06.2003 (prior 2006)		EC accorded on 04.08.08, amended on 18.04.12, 06.02.15 & 27.02.17		EC accorded on 24-05-2019		Enhancement Accorded vide NIPL Dt.26.04.2021	Final Capacity of Operating units
	Units Permitted	**Implementation status**	**Units permitted**	**Implementation status**	**Units permitted**	**Implementation status**	**Units Permitted**	**Implementation status**
				• 1 x 9 MVA Ferro Alloys in operation since 27.04.2012 (1st CTO) *Not implemented:* • 1 x 9 MVA Ferro Alloys				
10.	---	---	Cement Plant – 75,000 TPA	*In Operation:* • 75,000 TPA Cement Plant in operation since 20.07.2009 (1st CTO)	---	---	---	75,000 TPA
11.	---	---	Hot Rolled TMT / Structural Cold Rolled Bars – 3,15,000 TPA	*In Operation:* • 2,00,000 TPA Rolling Mill is in operation since 21.06.2018 (1st CTO) *Not implemented:* • Rolling Mill - 1,15,200 TPA	Rolling Mill 4,29,000 TPA (2 x 650 TPD)	Shed work in under progress	90,000 TPA (NIPL)	Total - 2,90,000 TPA 2,00,000 TPA (EC) + 90,000 TPA (NIPL)
12.	---	---	---	---	Electric Arc Furnace 1,98,000 TPA (1 x 30 T)	Yet to commence	---	---

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

S. No.	Unit (Product)	EC granted on 1st August 2008		EC granted on 24th May 2019		Present Proposal	Final Configuration after Present Proposal
		Permitted	Implemented and Operating	Units Permitted	Status of implementation		
		[1]	[2]	[3]	[4]	[5]	[6] = [2] + [3] + [5]
1.	Iron Ore Beneficiation plant (Concentrated Iron ore)		---	---	---	1.2 MTPA	1.2 MTPA
2.	Iron Ore Pellet Plant (I/O Pellets)		---	---	---	0.8 MTPA	0.8 MTPA
3.	DRI Kilns (Sponge Iron)	2,70,000 TPA (4 X 300 TPD)	1,80,000 TPA (EC) + 45,000 TPA (NIPL) **Total – 2,25,000 TPA**	3,46,500 TPA (3 x 350 TPD)	3,46,500 TPA Construction under progress for 3 nos. of DRI Kilns	2,14,500 TPA (3 x 350 TPD Kilns will be upgraded to 3 x 425 TPD Kilns – Additional 74,250 TPA & Installation of New 1 x 425 TPD Kiln - 140,250 TPA)	7,86,000 TPA
4.	Sponge Iron Briquette	60,000 TPA	Not implemented	---	---	---	---
5.	Mini Blast Furnace	1,20,000 TPA	Not implemented	---	---	---	---
6.	Induction Furnace with CCM & LRF (MS Ingots / Billets / Hot Billets)	3,56,000 TPA	2,17,800 TPA (EC) + 16,500 TPA (NIPL) **Total - 2,34,300 TPA**	3,96,000 TPA (8 x 15 T)	1,59,750 TPA (Construction under progress 3 x 15 T Furnaces)	3,01,750 TPA (5 x 15 T IF will be upgraded to 5 x 17 T with LRF)	6,95,800 TPA
7.	Electric Arc Furnace		Nil	1,98,000 TPA (1 x 30 T)	---	1,98,000 TPA (1 x 30 T) (Retained EC permitted capacity)	1,98,000 TPA (1 x 30 T)
8.	Rolling Mill (Hot Rolled TMT / Structural / Cold Rolled Bars / Wire Rod) (80 % Hot charging with Hot Billets and remaining 20% through 2X20TPH RHF)	3,15,000 TPA	2,00,000 TPA (EC) + 90,000 TPA (NIPL) **Total - 2,90,000 TPA**	4,29,000 TPA (2 x 650 TPD)	Shed in under progress	4,29,000 TPA (Change in configuration of EC permitted capacity to 1 x 1000 TPD + 1 x 300 TPD)	7,19,000 TPA

S. No.	Unit (Product)	EC granted on 1st August 2008		EC granted on 24th May 2019		Present Proposal	Final Configuration after Present Proposal
		Permitted	Implemented and Operating	Units Permitted	Status of implementation		
		[1]	[2]	[3]	[4]	[5]	[6] = [2] + [3] + [5]
9.	Ferro Alloy Plant (FeSi/FeMn/SiMn/ FeCr)	55,000 TPA (3 X 9MVA)	2 x 9 MVA (FeMn 32,400 TPA / SiMn 32,400 TPA / FeCr – 27,000 TPA / FeSi – 15,600 TPA)	2 x 9 MVA (FeMn 32,400 TPA / SiMn 32,400 TPA / FeCr – 27,000 TPA / FeSi – 15,600 TPA)	Yet to commence	2 x 9 MVA (FeMn 32,400 TPA / SiMn 32,400 TPA / FeCr – 27,000 TPA / FeSi – 15,600 TPA) (Retained EC permitted capacity)	4 x 9 MVA (FeMn 64,800 TPA / SiMn 64,800 TPA / FeCr – 54,000 TPA / FeSi – 31,200 TPA)
10.	Power Plant (WHRB)	52 MW	10 MW	24 MW	Construction under progress for **24 MW (3 x 8 MW)**	Additional Power generation due to DRI upgradation 3 MW (3 x 1 MW) & Installation of New 9 MW WHRB Power Plant **12 MW (3 MW + 9 MW)**	46 MW
11.	Power Plant (FBC)		7 MW	25 MW (1 x 25 MW)	Civil work is in progress for 1 x 18 MW	**No increase** (Reduction in Power Plant from 25 MW to 18 MW)	25 MW
12.	Oxygen Plant	4,000 TPA	Nil	4,000 TPA	Yet to commence	4,000 TPA (Retained EC permitted capacity)	4,000 TPA
13.	Cement Plant	75,000 TPA	75,000 TPA	Nil	---	---	75,000 TPA
14.	Coal / Coke / Chrome fines Briquette	90,000 TPA	Nil	1,00,000 TPA	Yet to commence	1,00,000 TPA (Retained EC permitted capacity)	1,00,000 TPA

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

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

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

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

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

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

12.4.12 Baseline Environmental Studies

Period	1st March 2021 to 31st May 2021
Ambient Air Quality	• $PM_{2.5}$ = 22.2 to 44.9 µg/m^3 • PM_{10} = 37.5 to 77.8 µg/m^3 • SO_2 = 6.7 to 14.2 µg/m^3 • NO_2 = 7.3 to 28.9 µg/m^3 • CO = 312 to 1445 µg/m^3
AAQ modeling (incremental GLC's) ISCST3 model is used	• PM_{10} = 2.5 µg/m^3 (2600 m) • SO_2 = 9.1 µg/m^3 (3400 m) • NO_2 = 15.1 µg/m^3 (3800 m) • CO = 6.4 µg/m^3
Ground water quality at 8 locations	• pH **:** 7.0 to 7.9 • TSS : 0.32 to 0.6 mg/l • TDS : 433 to 604 mg/l • Total hardness **:** 146 to 255 mg/l • Chlorides **:** 210 to 288 mg/l • Fluoride **:** 0.51 to 0.78 mg/l • Heavy metals (Iron): 0.18 to 0.33 mg/l
Surface water quality	pH : 7.4 to 8.1, DO (in mg/l) : 4.4 to 5.9, BOD (in mg/I) : 2.2 to 3.6, COD (in mg/I) : 10.5 to 15.4, TDS (in mg/l) : 268 to 413, Chlorides (in mg/l) : 136 to 196, Sulphates (in mg/l) : 92 to 155
Noise level	The equivalent day-night noise levels in the study zone are ranging from 47.18 dBA to 70.06 dBA.
Traffic assessment study findings	Traffic study has been conducted at National Highway # 60 which is approximately 0.8 Kms. from the plant site. Shyam Steel Manufacturing Ltd. is in the process of having it's own Railway Siding upto the plant site. Most of the major materials required for expansion will be transported by Rail. No. of trucks required for proposed expansion project will be 431 trucks /day (i.e. 18 trucks/hr.) (considering worst scenario i.e. whole transport by road through covered trucks) Existing PCU is 580 PCU/hr. on NH#60 and existing Level of service (LOS) is:

Road	**V (Volume in PCU/hr.)**	**C (Capacity in PCU/hr.)**	**Proposed V/C Ratio**	**LOS**
NH # 60	580	3600	0.16	A

PCU load after proposed project will be 580 PCU/hr. + 119 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>Proposed V/C Ratio</th><th>LOS</th></tr><tr><td>NH # 60</td><td>699</td><td>3600</td><td>0.194</td><td>A</td></tr></table> **Level of Service (LOS) of the Road** <table><tr><th>V/C</th><th>LOS</th><th>Performance</th></tr><tr><td>**0.0 – 0.2**</td><td>**A**</td><td>**Excellent**</td></tr><tr><td>0.2 – 0.4</td><td>B</td><td>Very Good</td></tr><tr><td>0.4 – 0.6</td><td>C</td><td>Good</td></tr><tr><td>0.6 – 0.8</td><td>D</td><td>Fair/ Average</td></tr><tr><td>0.8 – 1.0</td><td>E</td><td>Poor</td></tr><tr><td>1.0 &Above</td><td>F</td><td>Very Poor</td></tr></table> Capacity as per IRC 73: 1980 guide line for capacity of the roads Conclusion: As per the above the LOS of the ROAD is categorized under 'A', which implies "EXCELLENT". Hence the existing road is capable of taking the additional vehicular traffic due to the proposed expansion project.
Flora and fauna	No Endangered species of Flora and Schedule I species of Fauna observed in the study area.

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

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

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

Hazardous waste generation, storage & disposal:

1.Waste oil: 5.0 KL / Annum

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

2.Used Batteries

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

12.4.14 Public Consultation

Date of advertisement	12th March 2022
Name of newspapers	Millennium Post - English Aajkaal - Bengali Sanmarg - Hindi
Date on which Public Hearing conducted	13th April 2022
Venue	Mejia Panchayat Samity Meeting Hall, PS: Mejia, Dist: Bankura, West Bengal
Attended by	Additional District Magistrate
Issues are	• CER activities • Health Care Facility • Plantation • Employment • Water sprinklers • Street lights • Waste water management etc.

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

S.No.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION				TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	4th Year (Rs. in Lakhs)	
A.	**Based on Need Based & SIA Study**						
1	**Community & Infrastructure Development Programmes**						
	i) Construction of public toilets	Physical Nos. & Village	2 nos. in Jemua (v) & 4 nos. in Mejia (v)	2 nos. in Parabatipur(v) & 2 nos. in Gopalpur (v)	2 nos. in Shyampur (v) & 4 nos. in Tarapur (v)	2 nos. in Tarapur (v) & 4 nos. in Ardhagram (v)	55
		Budget in Lakhs	15	10	15	15	
	ii) Mineral water plants	Physical Nos. & Village	2 nos. in Jemua (v) & 4 nos. in Mejia (v)	2 nos. in Parabatipur (v) &	2 nos. in Shyampur (v) & 4 Nos. in	2 nos. in Chuaberia (v) & 4 nos. in Dangmejia (v)	66

S.No.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION				TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	4th Year (Rs. in Lakhs)	
				2 Nos. in Gopalpur (v)	Tarapur (v)		
		Budget in Lakhs	18	12	18	18	
	iii) LED lights with solar panels	Physical Nos. & Village	10 nos. in Jemua (v) & 20 nos. in Mejia (v)	10 nos. in Parabatipur(v) & 10 Nos. in Ardhagram (v)	10 nos. in Shyampur (v) & 20 Nos. in Tarapur (v)	2 nos. in Tarapur (v) & 4 nos. in Ramchandrapur (v)	22
		Budget in Lakhs	6	4	6	6	
						Sub Total	**143**
2	**Education**						
	i) Providing Sport kits for schools	Physical Nos. & Village	5 nos. in Jemua (v) & 15 nos. in Mejia (v)	5 nos. in Parabatipur(v) & 5 nos. in Ardhagram (v)	10 nos. in Shyampur (v) & 20 Nos. in Tarapur (v)	10 nos. in Pabra (v) & 20 Nos. in Nagakuri (v)	9
		Budget in Lakhs	2	1	3	3	
	ii) Construction of class rooms in schools of size 10m x 8m x 4 m	Physical Nos. & Village	4 rooms in Mejia (v)	3 rooms. in Tarapur (V)	3 rooms in Jemua (V)	4 rooms in Matabel (v)	112
		Budget Rs in Lakhs	32	24	24	32	
	iii) Providing Model Anganwadi Centre in consultation with State Women and Child Development Department	Physical Nos. & Village	1 no. in Mejia (v) & 1 no. in Jemua (V)	1 no. in Tarapur (v) & 1 no. in Parabatipur (v)	1 no. in Shyampur (v) & 1 no. in Gopalpur (v)	1 no. in Lakshmanbadi (v) & 1 no. in Nagakuri (v)	80
		Budget Rs in Lakhs	20	20	20	20	
	iv) Providing furniture, computers, library, etc. for nearby	Physical Nos. & Village	1 no. in Mejia (v)	1 no. in Shyampur (v) & 1 no. in Egara (v)	1 no. in Tarapur (v)	1 no. in Dangmejia (v) & 1 no. in Matabel (v)	60

S.No.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION				TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	4th Year (Rs. in Lakhs)	
	local schools of 6 villages @Rs. 10.0 Lakhs per school	Budget Rs in Lakhs	10	20	10	20	
						Sub Total	**261**
3	RWH pits in the surrounding villages & De-siltation of ponds	Physical Nos. & Village	Mejia village pond desiltation 1m depth	Parbatipur village pond desiltation 1.5 m depth	RWH pits in Mejia School (3 nos.), Ballavpur School (4 nos.) & Egara School (3 nos.)	RWH pits in Pabra School (3 nos.), Matabel School (4 nos.) & Dangmejia School (3 nos.)	30
		Budget in Lakhs	4	6	10	10	
4	Impart training to the local villagers for skill development. a)DISHA Centre" along with necessary infrastructure for various vocational training program for employment generation in association with National Skill Development Mission (Automobile Repair, Welding, Electrical, Computer Hardware, Soft skills like computer	Physical Nos. & Village	One DISHA centre				411
		Budget in Lakhs	60	70	100	181	

S.No.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION				TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	4th Year (Rs. in Lakhs)	
	programs etc.)						
5	Primary Health Centre with Ambulance	Physical Nos. & village	Mejia (v)	---	---	---	80
		Budget in Lakhs	80	---	---	---	
						TOTAL (A)	**925**
B. Based on Public consultation							
1	Development of 15000 nos. of plantation in villages in Mejia (3000 nos.), Jamua (1500 nos.), Parbatipur (2000 nos.), Gopalpur (2000 nos.), Ardhagram (1500 nos.), Shyampur (2000 nos.) & Tarapur (3000 nos.) villages	Physical Nos. & village	Mejia (3000 nos.), Jamua (1500 nos.)	Parbatipur (2000 nos.), Gopalpur (2000 nos.), Ardhagram (1500 nos.)	Shyampur (2000 nos.) & Tarapur (3000 nos.)	---	75
		Budget in Lakhs	22.5	27.5	25.0		
						Total (B)	**75**
		TOTAL	**255.5**	**191.5**	**228**		
						Grand Total (A+B)	**1000**

Recurring expenditures

- Health checkup will be carried out periodically in surrounding villages i.e. Mejia, Jamua, Ardhagram, Gopalpur, Tarapur, Shyampur villages @ Rs 6.0 Lakhs every year
- PP further confirm that 14 nos. of villages viz. i) Mejia ii) Parbatipur iii) Jemua iv) Shyamapur v) Tarapur vi) Ardhagram vii) Chuaberia viii) Dangmejia ix) Ramchandrapur x) Pabra xi) Bhului xii) Nagakuri xiii) Matabel xiv) Lakshmanbadi will be adopted for taking up social and infrastructure developmental activities. An affidavit dated 17.08.2022 in confirmation of the adopting of villages is submitted.

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

S.No.	Item	Capital Cost (Rs. in Crores)			Recurring Cost per Annum (Rs. in Crores)
		2022-24	2024-26	Total	
1.	**Air Emission Management**				
	• Electro Static Precipitators	19.00	10.00	**29.00**	2.40
	• Fume /Dust extraction systems with Bag filters	7.00	6.50	**13.50**	1.20
	• Chimneys	6.60	5.00	**11.60**	0.05
	• CAAQMS (4 nos)	0.80	0.80	**1.60**	0.10
	• CEMS (17 nos.)	0.40	0.45	**0.85**	0.05
	• Water Sprinklers	0.20	0.10	**0.30**	0.05
	• Mechanical dust sweepers (6 nos.)	0.30	---	**0.30**	0.02
	• Environment Monitoring	---	---	**---**	0.20
	• Performance of APCS	---	---	**---**	0.10
	Sub Total	**34.30**	**22.85**	**57.15**	**4.17**
2.	**Wastewater Management**				
	• ETP	0.60	0.30	**0.90**	0.10
	• STP	0.40	---	**0.40**	0.20
	• Garland drains	0.40	0.20	**0.60**	0.02
	Sub Total	**1.40**	**0.50**	**1.90**	**0.32**
3.	**Solid waste Management**				
	• Ash handling system	1.70	---	**1.70**	0.25
	• Ash silos	1.00	---	**1.00**	---
	• Slag crushing & disposal	0.30	0.20	**0.50**	0.04
	• Hazardous & Municipal solid waste storage	0.30	0.10	**0.40**	0.01
	Sub Total	**3.30**	**0.30**	**3.60**	**0.30**
4.	**Greenbelt development**	0.90	0.90	**1.80**	0.05
5.	**Rainwater Harvesting**	0.20	0.20	**0.40**	--
6.	**Fire safety & Occupational Health**	1.10	0.30	**1.40**	0.03
7.	**Storm water Management**	0.90	---	**0.90**	
Total		**42.10**	**25.05**	**67.15**	**4.87**
Social Infrastructure Development		**6.75**			
Total EMP budget including Social Infrastructural development		**73.9**			**4.87**

12.4.16 The 32.79 Ha. (81 acres) of Greenbelt (inclusive of existing) will be developed within the plant premises. 35,000 nos. of plants are existing till date (survival rate 85%). 3000 no. of plants will be planted by December 2022. 7 m to 140 m wide greenbelt is being developed all around the

plant. Another 46,000 nos. of saplings will be planted as part of expansion. Local DFO will be consulted in developing the green belt. The tree species to be selected for the plantation are pollutant tolerant, fast growing, wind firm, deep rooted. A three-tier plantation is proposed comprising of an outer most belt of taller trees which will act as barrier, middle core acting as air cleaner and the innermost core which may be termed as absorptive layer consisting of trees which are known to be particularly tolerant to pollutants. 2500 plants will be planted per ha as per CPCB norms. Additionally 2000 nos. of plants will be planted on the connecting road to NH # 60 by September 2022.

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

Certified Compliance report from Integrated Regional office, MoEFCC

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

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

S. No.	Non-compliance Reported if any	Corrective action taken	Remarks of IRO, MoEFCC, Raipur
1.	PAs need to provide the TCLP test report of slag from Ferro alloy plant to the Regional Office.	TCLP report from Ferro Alloy Plant is being submitted to regional Office along with half yearly compliance report regularly.	PAs have submitted the TCLP test report of slag from Ferro alloy plant to the regional office.
2.	The copy of permission along with compliance status of recommendations of the State Forest Department regarding impact of the proposed plant on the surrounding Gangajalghati protected forest (3 km) need to be	Gangajal ghati protected forest is located outside 10 kms radius from the project side. Air pollution Control System such as ESPs; bag Filters, Dust suppression system, covered conveyors, pucca internal roads, green belt development in 1/3rd of the total area, helps in mitigating the impacts of air environment. The incremental and net resultant GLCs within 10 Kms. for parameters PM_{10},SO_2,NOx,CO are as follows: The net resultants GLCs are well within the national Ambient Air Quality Standards. Hence there is no impact on Gangajal ghati protected forest due to the proposed project.	As per the information provided, it is observed that the Government of West Bengal, Directorate of Forest vide letter no. 35/8/WL/2M-33/2018 dated 10.10.2018 have stated that "there is no national parks, sanctuaries, and

<table>
<tr><th>S. No.</th><th>Non-compliance Reported if any</th><th>Corrective action taken</th><th>Remarks of IRO, MoEFCC, Raipur</th></tr>
<tr><td></td><td>submitted to the Integrated regional Office, Kolkata.</td><td>Further, Gangajal ghati protected forest is situated in North East direction, whereas winds are predominantly blowing from West to East (as per IMD Annual wind rose).
Hence there is no impact on Gangajal ghati protected forest due to the proposed project.

<table>
<tr><th>Item</th><th>PM_{10} (mg/m^3)</th><th>SO_2 (mg/m^3)</th><th>NOx (mg/m^3)</th><th>CO (mg/m^3)</th></tr>
<tr><td>Maximum baseline conc.in the study area</td><td>77.8</td><td>14.2</td><td>28.9</td><td>1445</td></tr>
<tr><td>Maximum predicted incremental rise in concentration due to proposed expansion of SSML</td><td>1.3</td><td>18.1</td><td>6.0</td><td>6.4</td></tr>
<tr><td>Maximum predicted incremental rise in concentration due to vehicular emissions from the proposed expansion project.</td><td>1.2</td><td>--</td><td>9.1</td><td>--</td></tr>
<tr><td>Net resultant concentration during operation of the plant.</td><td>80.3</td><td>32.3</td><td>44.0</td><td>1451.4</td></tr>
<tr><td>National Ambient Air Quality Standards</td><td>100</td><td>80</td><td>80</td><td>2000</td></tr>
</table></td><td>biosphere reserves within 10 km of the project site".

Further the Divisional Forest Officer, Bankura (North) Division has stated that " as per the report of Forest Range Officer, G.Ghati, the distance is about 13 km from G. Ghati forest boundary to Shyam Steel Manufacturing Limited".

PAs have also provided the net resultant concentrations during the operation of the plant for PM_{10}, SO_2, NOx, CO which are within the National Ambient Air Quality Standards.</td></tr>
<tr><td>3</td><td>As proposed, green belt shall be developed in 50 acres (33%) out of 150 acres land</td><td>• There are few Fruit bearing trees which are in negligible proportion to the whole, the major species of trees planted are Krishna Chura, Radha Chura, Ashok, Siris, Segun, Seesam, Sonajhuri, Mehguni, Neem, Karanja, Kadam. etc.</td><td>PAs have stated that there are few fruit bearing trees which are in negligible quantity compared to</td></tr>
</table>

S. No.	Non-compliance Reported if any	Corrective action taken	Remarks of IRO, MoEFCC, Raipur
	available in and around the plant as per the CPCB guidelines within and around the plant premises as per the CPCB guidelines in consultation with DFO. (Specific condition xv).	• 50.0 Acres of extensive greenbelt was already been developed in the plant premises by 2019. • We are in continuous process of developing green belt in additional 10 Acres, as per 2019 EC in accordance with CPCB guidelines. We have planted 3,000 Plants, 1,500 Plants & 3,000 Plants in the FY 2019-20, FY2020-21 & FY 2021-22 respectively. • We do here by confirm that another 3,000 no. of saplings will be further planted in the plant premises in the coming monsoon season and post monsoon by December 2022, in consultation with DFO, covering an area of 3 Acres.	the trees planted in the area. It has been further stated that they are in continuous process of developing green belt in additional 10 acres as per 2019 EC in accordance of CPCB guidelines. They have further assured to plant 3000 saplings in the coming monsoon season and post monsoon by December 2022, in consultation with DFO, covering an area of 3 Acres.
4	It observed that online ambient air quality monitoring system has not been installed. The same may be installed at the project site immediately.	We would like to inform your good selves that Online Ambient Air Quality Monitoring System is being procured. Earlier order was placed in favor of M/s.Enviro Systems &Equipments, Kolkata now we are proceeding with little advanced system hence the previous order cancelled and new order finalized in favour of M/s. ENVEA INDIA PRIVATE LIMITED, the lead time for supply is of 16 weeks, in line, the systems will be installed by October 2022.	PAs have informed that procurement of online ambient air quality monitoring system has been finalized in favour of M/s ENVEA INDIA PROVATE LIMITED, wherein the lead time for supply is of 16 weeks. It has been stated that the systems will be installed by October 2022.
5	It is required to inform the different dates of commencing of land development and financial closures.	Against 2008 EC the last facility that was established was the rolling mill (2,00,000 TPA), the land development date and financial closure date were 1010-2017 & 12-12-2017 respectively.	PAs have informed that, against the 2008 EC the last facility that was established was the rolling mill (2, 00,000TPA), and the land development

S. No.	Non-compliance Reported if any	Corrective action taken	Remarks of IRO, MoEFCC, Raipur
			date and financial closure date were 10-10-2017 & 12-12-2017 respectively.

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

S. No.	Non-compliance Reported if any	Corrective action taken	Remarks of IRO, MoEFCC Raipur
1.	PAs need to expedite the plantation drive so as to cover 60 acres of green belt.	• 50.0 Acres of extensive greenbelt was already been developed im the plant premises by 2019 • PP is in continuous process of developing green belt im additional 10 Acres, as per 2019 EC in accordance with CPCB guidelines, PP has planted 3,000 Plants, 1,500 Plants & 3,000 Plants in the FY 2019-20, FY2020-21 & FY 2021-22 respectively. • PP do here by confirm that another 3,000 no. of saplings will be further planted in the plant premises in the coming monsoon season, In consultation with DFO covering an area of 3 Acres.	PAs have informed that they are in continuous process of developing green belt in additional 10 Acres, as per 2019 EC in accordance with CPCB guidelines. They have planted 3,000 Plants, 1,500 Plants & 3,000 Plants m the FY 2019-20, FY2020-21 & FY 2021-22 respectively. They have assured that another 3,000 no. of saplings will be further planted in the plant premises in the coming monsoon season, in consultation with DFO covering an area of 3 Acres.
2.	PAs need to submit monthly summary report of continuous stack emission and air quality monitoring to the Regional Office.	PP is carrying out continuous stack emission and air quality monitoring every bimonthly and same are being submitted to the Regional Office along with Half Yearly compliance report. Hence forth PP will also submit monthly summary report of continuous stack emission and air quality monitoring.	PAs have assured to submit monthly summary report of of continuous stack emission and air quality monitoring.
3	PAs need to provide more number of mobile or stationery vacuum cleaners.	PP has One Mobile vacuum cleaner in the existing plant. We do here by confirm that additional Mobile vacuum cleaners will be procured during the project implementation.	PAs have informed that they have one mobile vacuum cleaner in the existing plant and have assured to procure additional mobile vacuum cleaners during project implementation.

S. No.	Non-compliance Reported if any	Corrective action taken	Remarks of IRO, MoEFCC Raipur
4	PAs need to monitor ground water quality at some more location both within the plant and adjacent areas.	PP will carry out Ground Water Quality monitoring at 2 additional locations both within and adjacent areas.	PAs have informed that they will carry out ground water quality monitoring at two additional locations both within and adjacent areas.
5	PAs need to provide solar power generation on roof top of buildings.	PP has provided Solar Street lights in the existing plant. PP will provide Roof top solar power generation in envisaged project. PP further confirm that by December 2022 PP will install roof top solar system on the existing roof tops technically suitable for such installation.	PAs have informed that by December 2022, they will install roof top solar system on the existing roof tops technically suitable for such installation.
6	It has been observed that the PAs have planted fruit bearing species in the plant premises. PAs need to develop green belt in the remaining area (3 acres) immediately as per the CPCB guidelines in consultation with DFO.	• There are few Fruit bearing trees which are in negligible proportion to the whole, the major species of trees planted are Krishna Chura, Radha Chura, Ashok, Sins, Segun, Seesam, Sonajhuri, Mehguni, Neem, Karanja, Kadam etc. • 50.0 Acres of extensive greenbelt was already been developed in the plant premises by 2019. • PP is in continuous process of developing green belt in additional 10 Acres, as per 2019RC in accordance with CPCB guidelines. We have planted 3,000 Plants, 1,500 Plants & 3,000 Plants in the FY 2019-20, FY2020-21 & FY 2021-22 respectively. • PP do here by confirm that another 3,000 no, of saplings will be further planted in the plant premises in the coming monsoon season and post monsoon by December 2022, in consultation with DFO, covering an area of 3 Acres.	PAs have stated that there are few fruit bearing trees which are in negligible quantity compared to the trees planted in the area. It has been further stated that they are im continuous process of developing green belt in additional 10 acres as per 2019 EC in accordance of CPCB guidelines. They have further assured to plant 3000 saplings in the coming monsoon season and post monsoon by December 2022, in consultation with DFO, covering an area of 3 Acres.
7	It observed that online ambient air quality monitoring system has not been installed. The same may be installed at the	Online Ambient Air Quality Monitoring System are being procured, Earlier order was placed in favour of M,'s. Enviro Systems & Equipment's, Kolkata, now PP is proceeding with little advanced systems hence the previous order cancelled and new order finalised in favour of M/s. ENVEA INDIA PRIVATE LIMITED, the	PAs have informed that procurement of online ambient air quality monitoring system has been finalized in favour of M/s ENVEA INDIA PROVATE LIMITED, wherein the lead time for supply is of 16

S. No.	Non-compliance Reported if any	Corrective action taken	Remarks of IRO, MoEFCC Raipur
	project site immediately.	lead time for supply is of 16 weeks, in line, the systems will be installed by October 2022.	weeks. It has been stated that the systems will be installed by October 2022.
8	It is required to inform the Regional Office, the date of final approval of the project by the concerned authorities.	Date of final approval for ISMT Induction Furnace - 3 Nos. was 03.09.2020.	PAs have informed that the final approval for the 3 x 15 MT Induction Furnace was 03.09.2020.
Conclusion: The PAs have complied / are in the process of complying or assured to comply with the conditions stipulated by the Ministry. Accordingly the action taken report may be considered for further necessary action.			

12.4.19 The proposal was initially considered in 10th EAC meeting of Re-constituted EAC (Industry – 1) held on 1-3rd August 2022. Proposal was deferred for want of additional information. The deliberations and recommendation is given as below:

Deliberation by the Committee (EAC during 1-3rd August 2022)

12.4.20 The Committee noted the following:

1. The Committee observed that the project proponent has not properly submitted the implementation status of the facilities granted vide EC dated 04.08.2008, 25.05.2019 and CTE dated 26.04.2021. There is lot of confusion in the submitted information and PP/consultant were not able to explain the features completely.
2. The Committee also noticed that the table provided for existing and proposed configuration/capacity is not in conformity to the facilities granted vide EC dated 04.08.2008, 25.05.2019 and CTE dated 26.04.2021. The EAC advised to submit the revised information in separate columns for each of the permissions granted and the pressnt production details as per the latest CTO granted by SPCB.
3. The committee noted that water balance diagram needs to be revisited for proper distribution facility wise including greenbelt. Further, total water requirement after the proposed expansion is proposed as 4470 KLD. However, PP has obtained water permission from Damodar Valley Corporation for 1.3 MGD (i.e. 5909.75 KLD) which is much more than the requirement. Project Proponent shall submit the justification with the revised water balance diagram and revised EIA/EMP report.
4. The EAC observed that total land after the proposed expansion will be 91.34 Ha. (225.64 Acres). Existing (66.1 Ha./ 163.3 Acres) is in possession of management and agreement of sale have been done for additional land (25.24 Ha./ 62.34 Acres). However, PP submitted that Additional land will be converted to Industrial purpose. The Project

proponent is advised to submit the complete the acquisition and conversion of the additional land proposed in the instant proposal.

5. The Consultant has also not submitted the complete details based on the instructions provided in the Agenda.
6. As per the TOR condition, details of drone survey for the site, needs to be included in report and presented before the EAC during appraisal of the project.
7. Action plan to address the issues raised during public hearing submitted as per the MoEF&CC O.M. dated 30/9/2020 shall be revisited and submitted.
8. Project proponent committed to undertake plantation of atleast 2000 trees along with the connecting roads to National Highway in coming monsoon season during August-September 2022.
9. Project Proponent to consider adopting nearby villages for socio-economic development and shall submit an affidavit with the name of the villages which will be adopted.
10. The PP has to furnish the details of respirable dust concentrations measured in Ferro Alloy plant, Si-Mn, Fe-Cr, Fe-Si alloy plant for the quartz/silica, Chromium concentrations through personal /area monitoring and the results with Permissible limits as per Indian Factories Act. Report has to be furnished.
11. EAC is of the view that the Consultant shall read the various provisions of the EIA Notification, 2006 while preparation of he EIA/EMP Report. All the mitigation measures needs to be properly addressed in the EIA/EMP Report. EAC also warned the Consultant in this regard.

Recommendations of the Committee (EAC during 1-3rd August 2022)

12.4.21 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** and sought requisite information on the points referred at para no. 12.4.20 above. The proposal shall be considered after submission of requisite information in next EAC meeting.

12.4.22 Based on the above deliberation, the project proponent has submitted the ADS reply vide letter dated 20.08.2022 uploaded on Parivesh on 20.08.2022. Point wise reply of ADS is given as below:

S.No.	Points	Reply by PP
1.	The Committee observed that the project proponent has not properly submitted the implementation status of the facilities granted vide EC dated 04.08.2008, 25.05.2019 and CTE dated 26.04.2021. There is lot of confusion in the	Detailed implementation status of the facilities of EC granted dt. 04.08.2008, 25.05.2019 and CTE dated 26.04.2021 is submitted and updated at para 12.4.7 above.

<table>
<tr><th>S.No.</th><th>Points</th><th>Reply by PP</th></tr>
<tr><td></td><td>submitted information and PP/consultant were not able to explain the features completely.</td><td></td></tr>
<tr><td>2.</td><td>The Committee also noticed that the table provided for existing and proposed configuration/ capacity is not in conformity to the facilities granted vide EC dated 04.08.2008, 25.05.2019 and CTE dated 26.04.2021. The EAC advised to submit the revised information in separate columns for each of the permissions granted and the present production details as per the latest CTO granted by SPCB.</td><td>Details of permission granted and present product details granted as per latest CTO granted by PCB is shown below:
<table>
<tr><th>S. No.</th><th>Unit (Product)</th><th>Existing Operating plant</th><th>Details of Current CTO</th></tr>
<tr><td>1.</td><td>DRI Kilns
(Sponge Iron)</td><td>2,25,000 TPA</td><td>CTO obtained vide order no. CO110276 dt. 29-03-2019, valid upto 31-12-2023</td></tr>
<tr><td>2.</td><td>Induction Furnace with CCM & LRF (MS Ingots / Billets /Hot Billets)</td><td>2,34,300 TPA</td><td>CTO obtained vide order no. CO110276 dt. 29-03-2019, valid upto 31-12-2023</td></tr>
<tr><td>3.</td><td>Rolling Mill
(Hot Rolled TMT / Structural / Cold Rolled Bars / Wire Rod)
(80 % Hot charging with Hot Billets and remaining 20% through 2x20TPH RHF)</td><td>2,90,000 TPA</td><td>CTO obtained vide order no. CO110276 dt. 29-03-2019, valid upto 31-12-2023</td></tr>
<tr><td>4.</td><td>Ferro Alloy Plant
(FeSi/FeMn/SiMn/FeCr)</td><td>2 x 9 MVA
(FeMn 32,400 TPA / SiMn 32,400 TPA / FeCr – 27,000 TPA / FeSi – 15,600 TPA)</td><td>CTO obtained vide order no. CO110276 dt. 29-03-2019, valid upto 31-12-2023</td></tr>
<tr><td>5.</td><td>Power Plant (WHRB)</td><td>8 MW
+
2 MW</td><td>CTO obtained for 8 MW vide order no. CO110276 dt. 29-03-2019, valid upto 31-12-2023
&
CTO obtained vide order no. C0128966 dt. 04-08-2020, valid upto 31-12-2023</td></tr>
</table></td></tr>
</table>

S.No.	Points	Reply by PP
		6. Power Plant (FBC) — 7 MW — CTO obtained vide order no. CO110276 dt. 29-03-2019, valid upto 31-12-2023 7. Cement Plant — 75,000 TPA — CTO obtained vide order no. CO110276 dt. 29-03-2019, valid upto 31-12-2023
3.	The committee noted that water balance diagram needs to be revisited for proper distribution facility wise including greenbelt. Further, total water requirement after the proposed expansion is proposed as 4470 KLD. However, PP has obtained water permission from Damodar Valley Corporation for 1.3 MGD (i.e. 5909.75 KLD) which is much more than the requirement. Project Proponent shall submit the justification with the revised water balance diagram and revised EIA/EMP report.	Revised Water Balance is submitted. PP submitted that they have obtained approval from Damodar Valley Corporation for 1.3 MGD (i.e. 5909.75 KLD) to draw water from Damodar River initially vide dated 25.06.2007 and was renewed accordingly vide dated 24.04.2019. PP has obtained water drawl permission initially considering future expansion also as the process of obtaining water permission requires significant time. PP assure and confirm that its total water requirement including the present expansion will not exceed 4470 KLD and an affidavit dated 17.08.2022 in confirmation of the same is also submitted. PP has also submitted the revised water balance diagram.
4.	The EAC observed that total land after the proposed expansion will be 91.34 Ha. (225.64Acres). Existing (66.1 Ha./ 163.3 Acres) is in possession of management and agreement of sale have	➢ Existing plant area is 66.10 Ha. (163.3 Acres) is in possession of management. ➢ Additional land proposed as part of expansion is 25.24 Ha. (62.34 Acres). This land is in possession of Sister concern companies of Shyam Steel group. ➢ Agreement of sale has been done by Shyam Steel Manufacturing Limited with the following companies for the 25.24 Ha. (62.34 Acres) of land.

<table>
<tr><th>S.No.</th><th>Points</th><th>Reply by PP</th></tr>
<tr><td></td><td>been done for additional land (25.24 Ha./ 62.34 Acres). However, PP submitted that Additional land will be converted to Industrial purpose. The Project proponent is advised to submit the complete the acquisition and conversion of the additional land proposed in the instant proposal.</td><td>
<table>
<tr><th>S.No.</th><th>Name of Sister Concern company</th><th>Plot No.</th><th>Extent of land</th></tr>
<tr><td>1.</td><td>Avant Vintrade LLP</td><td>606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 720, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 899, 900, 901, 902, 904, 905, 906, 907, & 908.</td><td>23.92 Acres.</td></tr>
<tr><td>2.</td><td>Avaneesh Dealmark LLP</td><td>909, 910, 911, 912, 968, 969, 971, 972, 973, 974, 975, 976, 978, 979, 980, 981, 1175, 1176, 1177, 1179, 1180, 1181, 1182, 1183, 1184, 1187, 1429, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1439, 1440, 1441, 1442, 1446, 1447, 1448, 1449, 1450, 1451, 1452, 1453, 1454, 1456, 1457, 1458, 1460, 1461, 1462, 1463, 1474/2479 & 1474/2477.</td><td>22.12 Acres</td></tr>
<tr><td>3.</td><td>Bright Dealtrade LLP</td><td>1263/2484, 1474/2476 & 1474/2478.</td><td>1.63 Acres</td></tr>
<tr><td>4.</td><td>Bright Dealtrade LLP</td><td>898, 903 & 977.</td><td>3.55 Acres</td></tr>
<tr><td>5.</td><td>Bright Dealtrade LLP</td><td>620, 622, 625, 729, 733, 737, 738, 739, 901, 902, 904, 912, 969, 970, 974, 975, 976/1333, 979, 982, 983, 1174, 1176, 1178, 1430, 1446, 1447, 1448, 1455, 1459, 1446/2483 & 1474/2485.</td><td>10.44 Acres</td></tr>
<tr><td>6.</td><td>Ranchi Castings Private Limited</td><td>979</td><td>0.68 Acres</td></tr>
</table>

Copy of Agreement of sale between Shyam Steel Manufacturing Limited & other Sister concern companies is submitted.
Applications have been submitted for land conversion by the aforementioned companies and copies in confirmation of the same is submitted.
</td></tr>
</table>

S.No.	Points	Reply by PP
		PP assure that they will obtain the land conversion before commencement of expansion and affidavit dated 17.08.2022 confirming the same is submitted. The details are updated at para 12.4.5 above.
5.	The Consultant has also not submitted the complete details based on the instructions provided in the agenda.	Pioneer Enviro Laboratories & Consultants Pvt. Ltd. sincerely apologise the hon'ble EAC for not providing the drone video of the plant area as mentioned in the agenda. Complete details have been provided now.
6.	As per the TOR condition, details of drone survey for the site, needs to be included in report and presented before the EAC during appraisal of the project.	Drone video survey of the project site is carried out and shown during meeting.
7.	Action plan to address the issues raised during Public Hearing submitted as per the MoEF&CC O.M. dated 30/9/2020 shall be revisited and submitted.	Revised Action plan duly addressing the issues raised during Public Hearing in accordance with MoEF&CC O.M. dated 30/9/2020 is submitted and the same is updated at para 12.4.14 above.
8.	Project proponent committed to undertake plantation of atleast 2000 trees along with the connecting roads to National Highway in coming monsoon season during August - September 2022.	It is assured by PP that 2000 nos. of plants will be planted on the connecting road to NH # 60 by September 2022. The same is updated at para 12.4.16 above.
9.	Project Proponent to consider adopting nearby villages for socio-economic development and shall submit an affidavit with the name of the villages which will be adopted.	PP has confirmed that 14 no. of villages viz. i) Mejia ii) Parbatipur iii) Jemua iv) Shyampur v) Tarapur vi) Ardhagram vii) Chuaberia viii) Dangmejia ix) Ramchandrapur x) Pabra xi) Bhului xii) Nagakuri xiii) Matabel xiv) Lakshmanbadi will be adopted for taking up social and infrastructure developmental activities. An affidavit dated 17.08.2022 in confirmation of the adopting of villages is submitted. The same is updated at para 12.4.14 above.

S.No.	Points	Reply by PP
10.	The PP has to furnish the details of respirable dust concentrations measured in Ferro Alloy plant, Si-Mn, Fe-Cr,Fe-Si alloy plant for the quartz/silica, Chromium concentrations through personal /area monitoring and the results with Permissible limits as per Indian Factories Act. Report has to be furnished.	Monitoring has been conducted for respirable dust concentrations of Silica, Chromium concentrations in Existing Ferro Alloys plant and same are found to be within permissible limits. The Analysis reports are submitted.
11.	EAC is of the view that the Consultant shall read the various provisions of the EIA Notification, 2006 while preparation of the EIA/EMP Report. All the mitigation measures needs to be properly addressed in the EIA/EMP Report. EAC also warned the Consultant in this regard	M/s Pioneer Enviro Laboratories & Consultants Pvt. Ltd. sincerely apologise the hon'ble EAC and assured that all provisions of EIA Notification, 2006 will be duly considered during preparation of EIA/EMP Report and all the mitigation measures will be addressed fully in the EIA/EMP report.

12.4.23 Based on the ADS reply submitted by the Project proponent, the proposal was reconsidered during the 12th meeting of the EAC for Industry-I sector held on 30-31st August, 2022. The deliberations and recommendations of the Committee are as follows:

Written representations:

12.4.24 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 30.08.2022 through email dated 30.08.2022 submitted the Revised budget for Social and Infrastructure development as per OM dated 30.09.2020 which is updated at para 12.4.14 above.

Deliberations by the Committee

12.4.25 The Committee noted the following:

1. The instant proposal is for expansion of Steel Plant – DRI Kilns (Sponge Iron from 2,25,000 TPA to 7,86,000 TPA), Induction Furnaces along with CCM & LRF (MS Ingots / Billets/ Hot Charging from 2,34,300 TPA to 6,95,800 TPA), Rolling Mill (Hot Rolled TMT / Structural / Cold Rolled Bars/Wire Rod - 2,90,000 TPA to 7,19,000 TPA), 2 x 9 MVA Ferro Alloys, 1 x 30 T Electric Arc Furnace, WHRB based Power Plant from 10 MW to 46 MW, FBC based Power Plant from 7 MW to 25 MW, New 1.2 MTPA of I/O Beneficiation plant, New 0.8 MTPA of I/O Pellet Plant.
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. The total project area is 91.34 ha (Private & Industrial Land). Existing plant area is 66.10 Ha. (163.3 Acres) is in possession of management. Additional land proposed as part of expansion is 25.24 Ha. (62.34 Acres). This land is in possession of Sister concern companies of Shyam Steel group. Agreement of sale has been done by Shyam Steel Manufacturing Limited with the companies. Applications have been submitted for land conversion by the aforementioned companies. PP assured that assure that it will obtain the land conversion before commencement of expansion and affidavit dated 17.08.2022 confirming the same is submitted.
6. Jemua Village lies adjacent to the project site at a distance of 0.1 km in the West direction.
7. PP vide affidavit dated 17.08.2022 has committed that 14 no. of villages viz. i) Mejia ii) Parbatipur iii) Jemua iv) Shyampur v) Tarapur vi) Ardhagram vii) Chuaberia viii) Dangmejia ix) Ramchandrapur x) Pabra xi) Bhului xii) Nagakuri xiii) Matabel xiv) Lakshmanbadi will be adopted for taking up social and infrastructure developmental activities.
8. The total water requirement is estimated to be 4470 KLD which will be sourced from Damodar River.

9. 4 nos of rain fed pond are present in the additional land proposed for expansion proposal and as committed, the same will not be disturbed & will be utilised as water reservoirs.
10. Damodar River, Galghata Jhor Nallah, Chouphari Nallah and Mejia Bil Reservoir exists within the study area. The water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
11. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
12. The Committee deliberated on the action plan and budget allocation for green belt development and found it satisfactory.
13. The Committee deliberated upon the certified compliance report of IRO and its ATR and found it satisfactory.
14. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
15. The Committee also deliberated on the public hearing issues along with revised action plan submitted by the proponent through written submission to address the issues raised during the public hearing and found it satisfactory.
16. The EAC also deliberated on the ADS reply submitted by the PP and found it satisfactory.
17. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
18. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee:

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

A. <u>Specific Conditions</u>

i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
iii. Tailings from Iron Ore beneficiation plant shall be dewatered in filter press and no slime /tailing pond shall be permitted.
iv. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
v. Solid waste utilization
    - PP shall install a fly ash brick making plant.
    - PP shall recycle/reuse 100 % solid waste generated in the plant.
    - Used refractories shall be recycled as far as possible.
vi. SAF and EAF shall be with 4th hole extraction system. SAF must be of closed type.
vii. 85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil or LSHS as a fuel.
viii. Dust emission from stacks shall be less than 30 mg/Nm3.
ix. Additional land proposed as part of expansion i.e. 25.24 Ha. (62.34 Acres) shall be acquired and converted to Industrial Land before commencement of expansion project.
x. Total water requirement of 4470 m3/day shall be met from Damodar river. No ground water abstraction is permitted. As committed the requirement of water shall not exceed.
xi. As committed, 4 no.s of rain fed pond present in the additional land proposed for expansion proposal shall not be disturbed & shall be utilised as water reservoirs.
xii. Damodar River, Galghata Jhor Nallah, Chouphari Nallah and Mejia Bil Reservoir exists within the study area. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.
xiii. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
xiv. Air cooled condensers shall be used in the FBC Power plant.
xv. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
xvi. Three tier Green Belt shall be developed in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Plantation in gaps in the green belt shall be done by the PP during the present monsoon period and maintenance shall be done in the following years. As committed, 2000 nos. of plants shall be planted on the connecting road to NH # 60 by September 2022. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

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

xviii. The company shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report.

xix. The coal dust to be measured at coal handling areas, ball mills, furnace charging areas through personal and area monitoring and to be compared and it should be within 2 mg/m3, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.

xx. The proposed project shall be designed as "Zero Liquid Discharge" Plant. There shall be no discharge of effluent from the plant. Sanitary waste water shall be treated in STP.

xxi. CEMS shall be provided on all process stacks and the signal shall be received in plant control room for central control of APCDs installed in the plant.

xxii. All roads in the plant shall be paved and industrial vacuum cleaners shall be used regularly to clean roads to reduce fugitive emissions.

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

xxiv. Ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system shall be used.

xxv. The Efforts shall be made to achieve power consumption of 70 units/tone of Portland-Pozzolona cement (PPC) and 95 units/tone of cement for Ordinary Portland Cement and thermal energy consumption of 670 kcal/Kg of Clinker.

xxvi. 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.

xxvii. DeSOx system shall be provided dry type. NOx level shall be maintained below 600 mg/Nm3 by using best available technology.

xxviii. Petcoke dosing shall be controlled automatically to control SO2 emission from chimney within the prescribed limits.

xxix. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

xxx. As committed to adopt 14 villages, namely i) Mejia ii) Parbatipur iii) Jemua iv) Shyampur v) Tarapur vi) Ardhagram vii) Chuaberia viii) Dangmejia ix) Ramchandrapur x) Pabra xi) Bhului xii) Nagakuri xiii) Matabel xiv) Lakshmanbadi, project proponent shall prepare and implement a robust plan to develop them into model villages in next 10 years.

xxxi. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the

measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

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

B. <u>General conditions:</u>

I. Statutory compliance:

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

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; G.S.R. No. 612 (E) dated 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 monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

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

v. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.

vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.

vii. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.

viii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.
ix. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
x. Provide Low NOX burners as primary measures and SCR /NSCR technologies as secondary measure to control NOX emissions.

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; G.S.R. No. 612 (E) dated 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 monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
iv. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.
v. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
vi. Tyre washing facilities shall be provided at the entrance of the plant gates.
vii. Water meters shall be provided at the inlet to all unit processes in the steel plants.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.
ii. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
iii. Restrict Gas flaring to < 1%.

iv. Provide LED lights in their offices and residential areas.
v. Ensure installation of regenerative/recuperative type burners on all reheating furnaces.
vi. The project proponent makes efforts to achieve power consumption less than 65 units/ton for Portland Pozzolona Cement (PPC) and 85 units/ton for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.

VI. Waste management

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

VII. Green Belt

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

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.
iv. The Unit is using quartzite, coal and coke. Therefore, the industry is recommended to measure silica and coal dust exposures using personal and area air samplers in process plants and to be compared with Permissible exposure limits as per Indian Factories Act, 1948. Report to be submitted to the IRO, MoEFCC.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of

the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. Miscellaneous

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

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

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

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

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

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

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

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Modification of TOR Proposal

Agenda No. 12.5

12.5 MS Billets -2,41,500 TPA (Intermediate Product) and TMT bars – 2,27,000TPA by M/s Shyam Ferrous Limited, located at Sy. Nos. 67/2 & 359 Devarapally (V), Hindupur (M), Ananthapur District, Andhra Pradesh-Consideration of Modification of TOR

[Proposal No. IA/AP/IND/287351/2022] File No. J-11011/634/2009-IA.II(I)]

12.5.1 M/s. Shyam Ferrous Limited has made an application online vide proposal no. IA/AP/IND/287351/2022 dated 05.08.2022 along with Form 3, revised Form-1 and revised PFR seeking amendment in Terms of Reference accorded by the Ministry vide letter no. J-11011/634/2009-IA II (I) dated 26.02.2022. The proposed project activity is listed at S. No. 3(a) Metallurgical Industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification and attracts general condition due to interstate boundary of Andhra Pradesh and Karnataka is at a distance of 1.7 KM (S) and appraised at central level.

Details submitted by Project proponent

12.5.2 M/s. Shyam Ferrous Limited had earlier applied for grant of ToR vide proposal no. IA/AP/IND/244611/2021 dated 24.02.2022 for change in furnace configurations and expansion of existing facilities for production of MS Billets / Steel Billets from 45885 TPA to 241500 TPA and TMT bars from 60000 TPA to 227000 TPA located at Sy. Nos. 67/2 & 359 Devarapally (V), Hindupur (M), Ananthapur District, Andhra Pradesh. Accordingly, Standard TOR was issued vide letter no. J-11011/634/2009-IA II (I) dated 26.02.2022.

12.5.3 The instant proposal is for seeking amendment in ToR dated 26.02.2022 with respect to changed greenbelt outside the plant area and change in the district name of the project site as reported below:

Sl. No.	Particulars	As per ToR dated 26.02.2022	Proposed amendment in ToR	Remarks
1.	Greenbelt	The unit proposed acquisition of additional land of 2.23 acres for development of green belt at Sy. No. 68/2 adjacent to plant site & entered into sale agreement with the party.	Instead of greenbelt development at 2.23 acres land at Sy. No. 68/2, it is proposed that 10 Acres (4.04 Ha) is allotted by Hindupur Municipality to M/s Shyam Ferrous Limited to Development for Green belt development at Sy. No. 359 in Hindupur Municipality which is at distance of 6 Km from the plant site. (ROC No. 426/2022-G1 Date: 26.05.2022)	• At the time of registration of sale deed for earlier proposed greenbelt land of 2.23 acres at Sy. No. 68/2, it came to the notice that there is a dispute on this land and hence registration could not be taken place. • As there is short fall of green belt to an extent of 1.267 acres to meet the 33% green belt norm, M/S Shyam Ferrous Approached AP Pollution Control Board and based on the suggestion of AP. Pollution Control Board, Hinupur Municipality allotted 10 acres of land at Sy.No 359, Sadalapally, Hindupur Municipality for development of oxygen park.
2.	Change in name of the District of Project Site	Sy. Nos. 67/2 & 359 Devarapally (V), Hindupur (M), **Ananthapur District**, Andhra Pradesh	Sy. Nos. 67/2 & 359 Devarapally (V), Hindupur (M), **Satya Sai District**, Andhra Pradesh	Due to re-organisation of districts in Andhra Pradesh.

12.5.4 PP has further reported that there is no changes in configuration & capacity of units in granted ToR.

12.5.5 **Reason for seeking amendment in ToR:** At the time of submission of previous TOR application, industry proposed to acquire additional land of 2.23 acres at Sy. No. 68/2 and entered into agreement with land owner. As the land could not be registered to company due to some land dispute, additional greenbelt area for the project is proposed with an extent of 10 Acres in Sy. No. 359, Sadlapally Tank, Hindupur Municipality. This area is allotted by Hindupur Municipality for development and maintenance of green belt and oxygen park.

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

Deliberation by the Committee

12.5.7 The Committee noted the following:

i. M/s Shyam Ferrous Limited was granted ToR vide letter no. J-11011/634/2009-IA II (I) dated 26.02.2022 for change in furnace configurations and expansion of existing facilities for production of MS Billets / Steel Billets from 45885 TPA to 241500 TPA and TMT bars from 60000 TPA to 227000 TPA located at Sy. Nos. 67/2 & 359 Devarapally (V), Hindupur (M), Ananthapur District, Andhra Pradesh.

ii. The instant proposal is for seeking amendment in ToR dated 26.02.2022 with respect to changed greenbelt outside the plant area (~6km) and change in the district name of the project site as detialed in 12.5.3 above.

iii. The EAC noted that there is no change in the configuration & capacity of units in granted ToR.

iv. The EAC noted that the new proposed site for Green belt development i.e. 10 Acres (4.04 Ha) at Sy. No. 359 allotted by Hindupur Municipality to M/s Shyam Ferrous Limited is at distance of 6 Km from the plant site. The EAC did not agree to the proposal for developing greenbelt outside the plant area as the proposed site will be too far from the project site. The Committee deliberated that the greenbelt development is one of the ways to mitigate the environmental impacts of the project and in the instant case greenbelt development at a faraway distance will not fulfil the sole purpose.

Recommendations of the Committee

12.5.8 After deliberations, the Committee **recommended to returned the proposal in its present form** w.r.t. amendment in Terms of Reference no. J-11011/634/2009-IA II (I) dated 26.02.2022 and advised the project proponent to explore alternative ways for greenbelt development preferably inside the plant area and if not available then the site for greenbelt development shall be identified adjacent to the project site to the maximum extent.

***

AUGUST 31, 2022 [WEDNESDAY]

Consideration of Environmental Clearance Proposals

Agenda No. 12.6

12.6 Cement Plant (Clinker: 3.5 MTPA and Cement 5.0 MTPA), WHRS (17 MW) and D.G. Set (2 x 1250 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 – Consideration of Environmental Clearance.

[Proposal No. IA/UP/IND/162025/2020; File No. J-11011/449/2009-IA.II(I)]
[Consultant: J.M. EnviroNet Pvt. Ltd.; valid upto 07.02.2023]

12.6.1 M/s. UltraTech Cement Ltd. has made an online application *vide* proposal no. IA/UP/IND/162025/2020 dated 14.08.2022 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(b) Cement Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

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

Details submitted by Project proponent

12.6.3 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

12.6.4 The project of M/s. UltraTech Cement Ltd. located at Village: Kota (Dalla), Tehsil: Obra (Erstwhile Robertsganj, District: Sonebhadra, Uttar Pradesh 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).

12.6.5 Environmental Site Settings:

S No	Particulars	Details	Remarks
i.	Total land	183.064 ha [Forest land: 116.114 ha and Private land: 66.95]	
ii.	Land acquisition details as per	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	-

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td>MoEF&CC OM dated 7/10/2014</td><td>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>
<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>
</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>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. In-Principle (Stage - 1) approval for the diversion of 115.874 ha of forest land has been obtained from MoEFCC (Forest Conservation Division) vide letter no. 8-07/2019/FC, dated 15th April, 2021 in the name of Jaiprakash Associate Limited (JAL). M/s. UltraTech Cement Ltd. (UTCL) will get it name change from JAL to UTCL. PP vide letter dated 26.08.2022 has submitted an undertaking regarding commencement of production only after getting name change in Forest Clearance in the name of UltraTech Cement Ltd.
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>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>

<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>Jatya Nala</td><td>3.5 km</td><td>ENE</td></tr>
<tr><td>Durhul Nala</td><td>4.8 km</td><td>ESE</td></tr>
<tr><td>Chhotaghagh Nala</td><td>4.8 km</td><td>South</td></tr>
<tr><td>Kutraicha Nala</td><td>9.25 km</td><td>ESE</td></tr>
<tr><td>Belwadah Nala</td><td>7.7 km</td><td>SE</td></tr>
<tr><td>Haraiyakhari Nala</td><td>8.8 km</td><td>ESE</td></tr>
<tr><td>Sakla Nala</td><td>8.3 km</td><td>SSE</td></tr>
</table></td><td></td></tr>
<tr><td>viii.</td><td>Existence of ESZ/ ESA/national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve /elephant reserve etc. if any within the study area</td><td>• 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.
• PP further reported that 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)</td><td>-</td></tr>
<tr><td>viii.</td><td>Critically/Polluted area</td><td>The project site is reported to be located within the boundary limits of Singrauli district – Severely Polluted Area having CEPI score of 62.59.</td><td></td></tr>
</table>

12.6.6 Environment Clearance for setting up of Dalla Super Cement Works (Clinker - 2.01 MTPA, Cement - 2.50 MTPA) was obtained from MoEF&CC, 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.

12.6.7 Implementation status of the existing EC

S. No.	Facilities	Units	As per EC dated 30th Sept., 2010	Implementation Status as on date	Production as per CTO
1.	Clinker	MTPA	2.01	Not implemented	Nil
2.	Cement	MTPA	2.50	Not implemented	Nil

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

S. No.	Unit	Configuration	Production capacity
1.	Clinker (MTPA)	10,000 TPD	3.5*
2.	Cement (MTPA)	2 x 280 TPH	5.0
3.	WHRS (MW)	17 MW	17

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

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

S. No.	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

S. No.	Name of Raw Material	Quantity (MTPA)	Source	Distance & Mode of Transportation
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*				

S. No.	Name of Feed Stock	Quantity (MTPA)	Source	Distance & Mode of Transportation
1.	Coal (Indian)	0.525	M/s Northern Coalfields Ltd, Singrauli	100 km, Rail / Road
2.	**Petcoke as feed stock for Cement Plant**	0.35	IOCL Haldia (WB)/ IOCL Paradip Odisha/ Bharat OMAN Refinery Bina-Madhya Pradesh / Imported	490 -1100 km, Rail / Road
Note - Individual fuel / fuel mix will be used for the cement plant				

12.6.10 Water requirement for the proposed Cement Plant will be 1980 KLD; which will be sourced from Groundwater. Authorization / No Objection Certificate for sinking of Existing three wells has been obtained from Ground Water Department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of Uttar Pradesh for 1980 KLD ground water withdrawal. Authorization / No Objection Certificate for sinking of Existing three wells has been obtained from Ground Water Department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of Uttar Pradesh for 1980 KLD water withdrawal vide letters dated 04.05.2022 which are valid up to 24th April, 2027.

12.6.11 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.

12.6.12 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

<table>
<tr><td>AAQ modelling (Incremental GLC)</td><td>

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)
CO - 0.741 µg/m^3 (approx. 0.5 km)

</td></tr>
<tr><td>Ground water quality at 12 locations</td><td>

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

</td></tr>
<tr><td>Surface water quality at 14 locations</td><td>

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

</td></tr>
<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</td></tr>
</table>

	Forest, Wildlife, Uttar Pradesh, Lucknow *vide* letter No. 2690/26-11(UTCL/Sonbhadra) Lucknow, dated 07/07/2021.

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

S. No.	Type of Waste	Waste	Source		Quantity	Mode of Treatment / Disposal
			Plant Unit	Section		
1.	SW	Dust	Cement Plant	APCE	55o TPD	Dust collected from various APCE will be totally recycled into the process.
2.	MSW	Bio-degradable and non-degradable waste	Plant and Colony	-	1000 kg / Day	Bio-degradable waste will be composted and non-degradable wastes will be disposed off suitably
3.	SW	STP Sludge	Cement Plant	STP	10 kg/day	Will be used as manure for greenbelt development / plantation.
4.	HW	Used or Spent Oil	Different sections	Plant Maintenance	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	

12.6.14 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	Distribution of fluoride removal kits in Kota Panchayat	150	0	0	45.9

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement			Cost
			01st Year	02nd Year	03rd Year	
	affected areas & Water facility for irrigation purpose	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)	0	
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	
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	1	0	0	15
		Establish a skill development centre in Kota gram	1	0	0	
6.	Agriculture facility	Integrated watershed development (Chorati Dandi, Bhabhanmari) establishment of wadis and composting beds (Basudha & Bhabhanmari) for vermiculture	Water shed (Basudha & Bhabhanmari)	Composting beds (Chorati Dandi, Bhabhanmari)	0	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)	Goradah & Basudha Tola	Paraspani, Dakudandi,	Kota, Kota Khas, Chikdandi	10
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) and Babhavanmari (3)	-	-	24
		Construction of Roof top rainwater harvesting system in School or Govt.	*Dalla (5)*	Kota gram panchayat (5)	0	

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement			Cost
			01st Year	02nd Year	03rd Year	
		Building in village Kota grams panchayat and Dalla				
		Construction of Drainage system in village 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.***						

12.6.15 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. The details of cost for environmental protection measures is as follows:

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	-
8.	Details of adoption of villages (Kota Khas, Harra, Paraspani, Bari, Bhalua Tola, Dahaku Dandi, Telgurwa and Amma Tola)	4	-
Total		**54.81***	**4.90**
****EMP Cost also include Rs. 82.76 Crores for storage facilities.***			

12.6.16 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. A 15 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. 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%.

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

12.6.18 The compliance of all the conditions applicable to CEPI as per MoEF&CC's OMs dated 31st October, 2019 & 30th December, 2019 issued in compliance of the order of Hon'ble NGT in OA No. 1038/2018 dated 19th Aug., 2019 are mentioned as below:

Environment	***Mitigation Measures***	***Measures will be adopted by UTCL***
Air	Stipulation of conditions such as: i. Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants.	In the proposed Cement Plant, it is recommended that bag filters having PTFE membrane coated bags will be provided which can result in PM emissions as low as 15 to 25 mg/Nm^3. So, Company has committed to achieve PM emission less then 25 mg/Nm^3 by using PTFE coated membrane.
	ii. CEMS may be installed in all large medium red category industries (air polluting) and connected to SPCB and CPCB server.	CEMS (4 Nos.) will be installed on Raw Mill / Kiln, Clinker Cooler, Coal Mill and cement mill and the same will be connected to UPPCB and CPCB server. The data of CEMS will be continuously transmitted to SPCB and CPCB Sever.
	(iii) Effective fugitive emission control measures should be imposed in the process, transportation, packing, etc.	The following emission control measures will be adopted for the project: o Installation of Bag filters (46 Nos) at all transfer points to reduce fugitive dust emissions. o Storage of clinker (54,000 tonnes), fly ash (10,000 tonnes) and cement in silos (2 x 15,000 tonnes). o Storage of gypsum in covered shed (10,000 tonnes). o Enclosures for unloading operations o Water spray during unloading of materials. o Water Spray on roads & other areas by mobile tanker/water sprinklers (7 Nos) will be carried out. o All the Roads (10 - 12 km) inside the plant premises will be concreted. o Regular vacuum sweeping (2 Nos) of all the roads & floors will be done. o Dust (550 TPD) collected from air pollution control equipment will be totally recycled in the process. o Fly ash will be pumped directly from the tankers to silos pneumatically in closed loop or mechanically such that fugitive emissions do not occur. o Dry fly ash will be transported through closed bulkers. o The packing machine will be equipped with dust extraction arrangement.

Environment	*Mitigation Measures*	*Measures will be adopted by UTCL*
	(iv) Transportation of materials by rail/ conveyor belt, wherever feasible.	Transportation of raw materials and finished products will be done by road and rail. Belt conveyor will be used for transport through conveyor belt and wagons will covered with tarpaulin.
	(v) Encourage use of cleaner fuels (pet coke/ furnace oil/ LSHS may be avoided).	Diesel will be used to power D.G. Set. DG set will be used only in case of power cuts & emergency situations only.
	(vi) Best Available Technology may be used. For example: usage of EAF SAF IF in place of Cupola furnace. Usage of Supercritical technology in place of sub-critical technology.	Latest modern technology in the plant will be used such as - Dry process technology, Low NOx burner, High efficiency Bag House & ESP, Four field Cooler, PTFE Bag filters, Plus Jet Bag house etc.
	(viii) Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.	Greenbelt/Plantation outside the project premises such as avenue plantation in vacant areas (Approx. 3000 plants) and social forestry will be done through CSR activities.
	(vi)Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to be widened, shall be prescribed as a condition.	Internal roads (10 - 12 km) of plant premises have been concreted and will maintain in good condition. Assessment of carrying capacity of approach roads (From DSCW Plant to DCW Plant & From DSCW Plant to SH 5A) has been carried out to calculate the transportation load of the Roads. Corrective measures will be taken accordingly.
Water	Stipulation of conditions such as: (i) Reuse / recycle of treated wastewater, wherever feasible.	No waste water will be generated from the Cement manufacturing process. Domestic waste water (40 KLD) generated from DSCW plant will be treated in STP (100 KLD) proposed within premises & will be re-used for greenbelt development.
	(ii)Continuous monitoring of effluent quality / quantity in large and medium Red Category Industries (water polluting).	No waste water will be generated from the Cement manufacturing process. Zero liquid discharge will be maintained and also PTZ camera will be provide for monitoring.
	(iii)A detailed water harvesting plan may be submitted by the project proponent.	The proposed ground water harvesting potential generated within plant premises is to the tune of 162952.3 cum/annum. The proposed ground water harvesting potential generated inside the colony is to the tune of 215014.73 cum/annum. Net Water harvested (plant & colony) is to the tune of 377967.03 cum/annum.

Environment	*Mitigation Measures*	*Measures will be adopted by UTCL*
	(iv) Zero liquid discharge wherever techno-economically feasible.	The Cement plant will be a Zero liquid discharge Unit.
	(v) In case, domestic waste water generation is more than 10 KLD, the industry may install STP.	Domestic waste water (40 KLD) generated from DSCW plant will be treated in STP (100 KLD) proposed within premises & will be re-used for greenbelt development.
Land	Stipulation of conditions such as: (i) Increase of greenbelt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever, feasible for new projects.	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. 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%.
	(ii) Stipulation of greenbelt outside the project premises such a avenue plantation, plantation in vacant areas, social forestry, etc.	Greenbelt/Plantation outside the project premises such as avenue plantation in vacant areas (Approx. 3000 Plants) and social forestry has been will be done through socio-economic developmental activities.
	(iv)Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/ PCCs.	Cement Plants does not generate wastes like Fly ash, slag, red mud etc. Dust collected (550 TPD) from the air pollution control equipment (Bag house & Bag filters) will be totally recycled back to the process. STP Sludge (10 kg / day) will be used as manure in greenbelt development/Plantation.
	Stipulation of conditions such as: (i) Increase of greenbelt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever, feasible for new projects.	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. 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%.
	(iv)More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in co-processing.	Storage and handling of hazardous waste will be done as per provisions of Hazardous Waste Rules, 2016. Co-processing of High calorific value Hazardous & Non-hazardous waste will be used in Cement Plant

Environment	*Mitigation Measures*	*Measures will be adopted by UTCL*
		Kiln and emission will be maintained below 25 mg/Nm3.
Other Conditions (Additional)	(i) Monitoring of compliance of EC conditions may be submitted with third party audit every year.	Monitoring of compliance of EC conditions will be submitted with third party audit every year.
	(ii) The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance.	As per MoEF&CC Office Memorandum dated 30th Sept., 2020 and 20th Oct., 2020, company has prepared Socio-economic development plan for development of the area and allocated Rs. 1.63 Crores.

12.6.19 The project proponent earlier applied for EC *vide* proposal no. IA/UP/IND/162025/2020 dated 24.02.2022. The proposal was considered during the 4th meeting of the EAC for Industry-I sector held on 27-28thApril, 2022 wherein the EAC after detailed deliberations recommended to return the proposal in its present form due to shortcomings.

12.6.20 The project proponent has again applied for EC vide proposal no. IA/UP/IND/162025/2020 dated 14.08.2022 after addressing the issues. The proposal is considered during 12th meeting of the EAC for Industry-I sector held on 30-31st August, 2022. The deliberations and recommendations of the EAC are as follows:

Written submission:

12.6.21 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 31.08.2022 through email dated 31.08.2022 submitted the following information:

S. No.	Point	Reply
1.	Air quality modelling of CO	Air quality modelling for CO has been done and max. GLC was found to be 0.741 µg/m^3 at approx. 0.5 km. Isopleth showing the max. GLC for CO is submitted. The same is updated at para 12.6.12 above.
2.	Water withdrawal permission	Authorization / No Objection Certificate for sinking of Existing three wells has been obtained from Ground Water Department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of Uttar Pradesh for 1980 KLD water withdrawal which is valid up to 24th April, 2027. The ground water permission is submitted. The same is updated at para 12.6.10 above.
3.	Revised Water Balance	Revised water balance showing the cooling water and Fire Fighting water requirement is submitted. Out of the total 150 KLD cooling water requirement; 135 KLD will be recirculated back to the cooling system and 15 KLD will be evaporation / process loses.

S. No.	Point	Reply
4.	Compliance of all the conditions applicable to CEPI as MoEF&CC OMs dated 31st Oct., 2019 & 30th Dec., 2019 issued in compliance of the order of Hon'ble NGT in OA No. 1038/2018 dated 19th Aug., 2019.	The Compliance of all the conditions applicable to CEPI as MoEF&CC OMs dated 31st Oct., 2019 & 30th Dec., 2019 issued in compliance of the order of Hon'ble NGT in OA No. 1038/2018 dated 19th Aug., 2019 is submitted which is incorporated at para 12.6.18 above.
5.	Undertaking regarding commencement of production only after getting name change in Forest Clearance in the name of UltraTech Cement Ltd.	Undertaking regarding commencement of production only after getting name change in Forest Clearance in the name of UltraTech Cement Ltd is submitted. The same is updated at para 12.6.5 above.
6.	A detailed Note on Supreme Court Order dated 03rd June, 2022 regarding	In this case, Kaimoor Wildlife Sanctuary is located at a distance of ~1.90 km in NE from the plant boundary and Eco Sensitive Zone of the Sanctuary is already demarcated of 1.0 km vide MoEFCC Notification S.O. 891 (E) dated 20th March 2017. Map showing the distance of the Kaimur Wildlife Sanctuary from the plant site and its 1.0 km Eco-sensitive Zone has been 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 which is submitted. PP will comply the direction of Supreme Court Order dated 03rd June, 2022.
7.	Total dust load per kg / day	There will be total six stack in the plant and total dust load will be 966.9 Kg/day.

Deliberations by the Committee

12.6.22 The Committee noted the following:

1. The instant proposal 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).

2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. EAC noted the following with respect to the instant project:
    - The EC was initially accorded by MoEF&CC vide 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.
    - 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 Allahbad 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, 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).

6. Project site of M/s. UTCL is located within the boundary limits of Singrauli District – Severely Polluted Area having CEPI score of 62.59. EAC deliberated the Action Plan alongwith mitigation measures and found in order.
7. 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. Map showing the distance of the Kaimur Wildlife Sanctuary from the plant site and its 1.0 km Eco-sensitive Zone has been duly authenticated by Principle Chief Conservator of Forest, Wildlife, Uttar Pradesh, Lucknow vide letter No. 2690/26-11(UTCL/Sonbhadra) Lucknow, dated 7th June, 2021 is submitted by the project proponent. *The letter also states a condition that the Kaimoor Wildlife Vihaar and the area falling under the eco sensitive zone of the extension area of the conservation plan in question will be implemented by the Divisional Forest Officer, Kaimoor Wild Life Division, Mirzapur and the remaining part will be implemented by the Divisional Forest Officer Obra Forest Division Obra, for which the desired amount will be made available to them by the user agency*.

   The Member Secretary (Industry-I), also appraised the EAC during the meeting that Ministry issued an OM vide No. 11/20/2018-ESZ dated 29th June, 2022 regarding the compliance of judgement dated 03.06.2022 of the Hon'ble Supreme Court in IA No. 1000 of 2003 in W.P. (C) No. 202 of 1995: T.N Godavarman vs. Union of India & Ores. Hon'ble Supreme Court, in its order dated 3rd June 2022, inter-alia, directed that each Protected Forest i.e., National park or Wild life sanctuary must have an ESZ of minimum 1 km measured from the demarcated boundary of such protected forest in which the activities prescribed. Further, mining within national parks and wildlife sanctuaries shall not be permitted and no new permanent structure shall be permitted to come up for whatsoever purpose within ESZ and power has been vested in Central Empowered Committee to decide any ESZ where the above norms cannot be made applicable. Since this order will have an adverse impact on the existing mechanism of approving ESZ, the Ministry is planning to file an appeal/review in this regard.

   Thus, the Committee also deliberated the proposal taking into account the Ministry's OM dated 29th June, 2022 in pursuance to judgment of Hon'ble Supreme Court dated 3rd June, 2022. The EAC noted that PP vide its written submission has submitted that they will comply with the direction of Supreme Court Order dated 3rd June, 2022. EAC is of the view that though the said Unit is located outside the ESZ, but very near to the sanctuary and in this regard the comments from ESZ Division of the Ministry may also be obtained.

8. 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 will be obtained. PP vide letter dated 26.08.2022 has submitted an undertaking regarding commencement of production only after getting name change in Forest Clearance in the name of UltraTech

Cement Ltd. 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.

9. The Son River, Rihand River, Kanhar River and Ghagar River alongwith several nallahs exists within the study area project site.
10. 1980 KLD water will be required for existing project; which will be sourced from Groundwater.
11. 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.
12. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
13. There are approx. 93 villages in 10 km radius study area. As committed, PP will adopt 8 villages, namely Kota Khas, Harra, Paraspani, Bari, Bhalua Tola, Dahaku Dandi, Telgurwa and Amma Tola and develop them into model villages in next 10 years.
14. 10 Species of fauna and 3 species of avifauna have been 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.
15. The existing DCW railway siding will be used for transportation of material for DSCW plant as and when required.
16. The Committee deliberated on the action plan submitted by the project proponent for compliance of the conditions applicable to CEPI and found it satisfactory.
17. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the green belt development shall be completed in a year.
18. 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.
19. The Committee also deliberated on the written submission of PP on the issues raised by EAC during meeting and found it satisfactory.
20. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
21. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974

and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

12.6.23 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 (i) obtaining the views/comments of ESZ Division, (ii) uploading the written submission on portal** and (iii) 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. <u>Specific conditions:</u>

(i) Project proponent shall comply with the direction of Hon'ble Supreme Court in IA No. 1000 of 2003 in W.P. (C) No. 202 of 1995: T.N Godavarman vs. Union of India & Ores judgment dated 3rd June, 2022.

(ii) The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(iii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(iv) In pursuance to MoEF&CC OMs dated 31st October, 2019 & 30th December, 2019 issued in compliance of the order of Hon'ble NGT in OA No. 1038/2018 dated 19th August, 2019, the compliance of all the conditions applicable to CEPI shall be followed as committed. Greenbelt shall be planted with woody, broad leaf trees in 73.23 ha area (40%). CER allocation shall be 1.5 times of the normal calculated amount.

(v) Since, M/s. Ultratech Cement Limited has acquired the Dalla Super Cement Works from M/s. Jaiprakash Associates Limited, the project proponent shall obtain/transfer all the statutory permissions in the name M/s. Ultratech Cement Limited prior to commencement of instant project activity.

(vi) In-Principle (Stage - I) 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 15thApril, 2021 in the name of Jaiprakash Associate Limited (JAL). The project proponent shall obtain Final (Stage-II) approval from MoEF&CC in the name of M/s. UltraTech Cement Ltd prior to commencement of instant project.

(vii) A seasonal nallah is passing through a project site. The PP shall take suitable steps / conservation plan along with contouring, Run-off calculations, disposal etc for conservation of nallah.

(viii) Son River, Rihand River, Kanhar River and Ghagar River alongwith several nallahs exists within the study area project site. A robust Conservation scheme to protect these water bodies; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

(ix) As committed, PP shall adopt 8 villages, namely Kota Khas, Harra, Paraspani, Bari, Bhalua Tola, Dahaku Dandi, Telgurwa and Amma Tola and develop them into model villages in next 10 years.

(x) 1980 KLD water will be required for existing project; which will be sourced from Groundwater. Necessary permission shall be obtained from the Competent Authority in this regard. PP shall explore the possibility of shifting to alternate source of water to reduce dependency on groundwater.

(xi) Three tier Green Belt shall be developed in a time frame of one year covering at least 33% of the total project area with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Gap filling shall be undertaken for the existing greenbelt to achieve target of plantation of 2500 saplings per ha.

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

(xiii) Rain water harvesting system as per Hydro-geological Study Report incorporated in EIA/EMP Report shall be implemented.

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

(xv) Slip roads shall be provided at the gates and along crossings on main roads.

(xvi) All internal and connecting road to the Highway shall be black topped/ concreted with suitable load in term of Million Standard Axle (MSA) as per IRC guidelines.

(xvii) Performance monitoring of pollution control equipment shall be taken up yearly and compliance status in this regard shall be reported to the concerned Regional Office of the MoEF&CC.

(xviii) Dioxin and furans shall be monitored twice a year during co-processing of hazardous waste and report shall be submitted to the Regional Office of the MoEF&CC.

(xix) Particulate matter emissions from all the stacks shall be less than 30 mg/Nm^3.

(xx) The proposed project shall be designed as "Zero Liquid Discharge" Plant. PP shall provide the Reverse Osmosis (RO) plant and capacity of RO plant with ETP and there shall be no discharge of effluent from the plant. Domestic waste water shall be treated in STP and treated water shall be re-used for greenbelt development and plantation and dust suppression.

(xxi) DeSOx system shall be provided dry type. NOx level shall be maintained below 600 mg/Nm^3 by using best available technology.

(xxii) Petcoke dosing shall be controlled automatically to control SO2 emission from chimney within the prescribed limits.

(xxiii) Cement production involves emission of SiO_2 in high concentration. Project Proponent shall carry out silica and dust exposure study on periodic basis in the workplace to ensure health and safety of the workers.

(xxiv) PP shall identify the Source of fluoride emissions and action plan to mitigate the same shall be implemented.

(xxv) A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

(xxvi) All the recommendations made in the risk assessment report shall be implemented and compliance status in this regard shall be furnished to the Regional Office of the MoEF&CC along with the six monthly compliance report.

(xxvii) The recommendations of the approved Site-Specific Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.

(xxviii) All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

(xxix) The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

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

B. General conditions

I. Statutory compliance:

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

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

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25thAugust, 2014 (Cement) and subsequent amendment dated 9thMay, 2016 (Cement) and 10th May, 2016 (in case of Co-processing Cement); as amended from time to time; and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

iii. The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120°each), covering upwind and downwind directions.

iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

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

vii. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.

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

ix. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.

x. Provide wind shelter fence and chemical spraying on the raw material stock piles; and

xi. Provide Low NOX burners as primary measures and SCR /NSCR technologies as secondary measure to control NOX emissions.

xii. Have separate truck parking area and monitor vehicular emissions at regular interval.

xiii. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport

xiv. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.

III. Water quality monitoring and preservation

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

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

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

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration by trees in the plant premises.

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

VIII. Public hearing and Human health issues

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

IX. Environment Management

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

X. Miscellaneous

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

offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

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

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

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

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

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

***

Agenda No. 12.7

12.7 Expansion of Proposed Iron Ore Pelletization Plant from 0.6 MTPA to 1.2 MTPA and 1.0 MTPA Iron Beneficiation Plant by M/s Sree Metaliks Limited, located at village - Anra, Tehsil – Telkoi, Dist. - Keonjhar, Odisha- Consideration of EC.

[Proposal No. IA/OR/IND/287092/2022; File No. J-11011/192/2008- IA II(I)]
[Centre for Envotech and Management Consultancy Pvt; valid upto 18.03.2024]

12.7.1 M/s. Sree Metaliks Limited has made an application vide proposal no. IA/OR/IND/287092/2022 dated 18.08.2022 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 '2(b)' Beneficiation Plant under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

12.7.2 Name of the EIA consultant: M/s Centre for Envotech and Management Consultancy Pvt Ltd. [Sl. No. 99, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2124/RA 0243; valid upto 18.03.2024, Rev. 24, July 05, 2022].

Details submitted by Project proponent

12.7.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
25.07.2022	Standard Terms of Reference (ToR)	Terms of Reference	26.07.2022	25.07.2026

12.7.4 The project of M/s Sree Metaliks Limited located in Village- Anra, Tehsil- Telkoi, District- Keonjhar, Odisha State is for expansion of Proposed Iron Ore Pelletization Plant from 0.6 MTPA to 1.2 MTPA and 1.0 MTPA Iron Beneficiation Plant.

12.7.5 Environmental Site Settings:

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td>i.</td><td>Total land</td><td>120 Acres (48.56 ha) [Private: 40.36 ha; Govt: 8.2 ha]
<table>
<tr><th>S. No.</th><th>Particulars</th><th>Area (Ha)</th><th>%</th></tr>
<tr><td>1</td><td>Main Plant</td><td>29.19</td><td>60.1</td></tr>
<tr><td>2</td><td>Green Belt</td><td>15.99</td><td>33.0</td></tr>
<tr><td>3</td><td>Solid Waste Management</td><td>01.82</td><td>3.7</td></tr>
<tr><td>4</td><td>Built up Area</td><td>01.56</td><td>3.2</td></tr>
<tr><td colspan="2">TOTAL PROJECT AREA</td><td>48.56</td><td>100.0</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td>ii</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>48.56 hectare of land is already in possession of M/s Sree Metaliks Limited.</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project Site:

Study Area:<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Keonjhar</td><td>14.62 km</td><td>SE</td></tr><tr><td>Joda</td><td>32.73 km</td><td>N</td></tr></table></td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site</td><td>Latitude: 21° 41' 9.614" to 21° 41' 11.257" N
Longitude: 85° 25' 48.499" to 85° 26' 0.979" E</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>524-533 M above mean sea level.</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No forest land involved.</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:
No

Study area:<table><tr><th>Water body</th><th>Distance</th><th>Direction</th></tr><tr><td>Baitarani River</td><td>6.14</td><td>NW</td></tr><tr><td>Jagdhala Nala</td><td>5.45</td><td>NE</td></tr><tr><td>Malda River</td><td>9.14</td><td>NW</td></tr><tr><td>Bamni Nalla</td><td>0.59</td><td>SSE</td></tr><tr><td>Chamda Nala</td><td>6.83</td><td>S</td></tr><tr><td>Kadal Nala</td><td>7.08</td><td>ENE</td></tr></table></td></tr>
<tr><td>viii.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area</td><td>Nil

Three Reserve Forest and Five protected forest is present within 10km area of the project.
1. Nayagarh RF – 6.86 km, NE
2. Ichinda RF - 7.43 km, S
3. Khejurmundi RF - 8.24 km, S
4. Raigurha PF - 1.37 km, SW
5. Jagar PF - 2.86 km, SE
6. Amuni PF - 1.90 km, E
7. Gandhamardan PF - 8.25 km, SE
8. Kumundi PF - 5.4 km, SSE</td></tr>
</table>

12.7.6 The existing project was accorded environmental clearance vide lr. no. J-11011/192/2008-IA.II(I), dated 13.07.2009. Consent to Operate for the existing unit was accorded by Odisha State

Pollution Control Board vide lr. No. 1944/IND-I-CON-6355 dated 10.02.2021. The validity of CTO is up to 31.03.2026.

12.7.7 Implementation status of the existing EC:

S. No.	Facilities/Units	As per EC dated 13.07.2009	Implementation Status as on August 2022	Production as per CTO
1.	DRI	4,50,000 TPA	Dropped	---
2.	MBF Pig Iron	380 Cu M	Dropped	---
3.	Sinter Plant	4,15,758 MTPA	Dropped	---
4.	Iron Ore Pelletization Plant	12,00,000 TPA	CTO obtained for 0.6 MTPA & balance 0.6 MTPA More than 65% Construction work completed	0.6 MTPA
5.	SMS	5,00,000 TPA	Dropped	---
6.	Coal Washery	150 TPH	Dropped	---
7.	Iron Ore Beneficiation Plant	10,00,000 TPA	More than 65% Construction work completed	---
8.	Captive Power Plant	50 MW	Dropped	---
	WHRB	*30 MW*	Dropped	---
	FBB	*20 MW*	Dropped	---

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

Sl. No.	Plant Equipment/ Facility	Existing facilities as per EC dated 13.07.2009								Proposed Unit		Final (Existing + Proposed)		Remarks
		Total (A+B)		Implemented (A)		Unimplemented (B)		As per CTO						
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	
1	DRI	2x500 TPD	450000 TPA	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	--
2	MBF Pig Iron	1x380 Cu.M	380 Cu.M	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	--
3	Sinter Plant	1x36 sqm	415758 MTPA	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	--
4	**Iron Ore Pelletization Plant**	**2x600000 TPA**	**12,00,000 TPA**	**1x6,00,000 TPA**	**6,00,000 TPA**	**1x6,00,000 TPA**	**6,00,000 TPA**	**1x6,00,000 TPA**	**6,00,000 TPA**	**1x6,00,000 TPA**	**6,00,000 TPA**	**2x600000 TPA**	**12,00,000 TPA**	**Pellet**
5	SMS	1,60,000 TPA	1,60,000 TPA	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	--
6	Coal Washery	1x150 TPH	150 TPH	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	--
7	**Iron Ore Beneficiation Plant**	**1,00,000 TPA**	**10,00,000 TPA**	**--**	**--**	**10,00,000 TPA**	**10,00,000 TPA**	**--**	**--**	**10,00,000 TPA**	**10,00,000 TPA**	**10,00,000 TPA**	**10,00,000 TPA**	**--**
8	Captive Power Plant (WHRB + FBB)	50 MW	50 MW	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	--

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

Sl. No.	Raw Materials	Quantity Required per Annum (TPA)			Source	Distance from Site (km)	Mode of Transport
		Existing (As per EC)	Expansion (Additional)	Total			
1	Iron Ore Fines	6,50,000	6,50,000	13,00,000	Nearby Mines	15	Road
2	Bentonite	6,532	6,531	13,063	Open Market	50	Road
3	Dolomite/ Lime Stone	6,532	6,531	13,063	Open Market	60	Road
4	Coke	1,788	1,787	3,575	Open Market	100	Road
5	Coal	21,000	21,000	42,000	Open Market	150	Road

12.7.10 Total water required is 569 KLD (Make up Water). The permission for extraction of Ground Water has been obtained from CGWA - 498 KLD permission vide NOC no CGWA/NOC/IND/ORIG/2021/12271 valid from 24.06.2021 to 23.06.2024 and 95 KLD permission vide NOC no CGWA/NOC/IND/ORIG/2021/11594 valid from 02.02.2021 to 01.02.2024.

12.7.11 Existing power requirement of 4.5 MW is obtained from NESCO. The power requirement for the proposed project is estimated as 7.5 MW which will be obtained from TPNODL. Total power requirement for plants is 12 MW.

12.7.12 Baseline Environmental Studies:

Period	1st March 2022 to 31st May 2022
AAQ parameters at 10 Locations (min and max)	• $PM_{2.5}$ = 20.8 to 39.2 µg/m^3 • PM_{10} = 50.1 to 80.5 µg/m^3 • SO_2 = 4.7 to 25.0 µg/m^3 • NO_X= 10.1 to 29.3 µg/m^3 • CO = <0.1 to 0.50 mg/m^3
Incremental GLC level	• PM_{10} = 2.013 µg/m^3
Ground water quality at 8 Locations	• pH: 6.55 to 7.11, • Total Hardness: 88 to 152 mg/l, • Chlorides: 7.9 to 15.9 mg/l, • Fluoride:0.26 to 0.33 mg/l, • Heavy metals (Mercury, Lead, Cadmium & Arsenic): BDL
Surface water quality at 8 Locations	pH: 6.99 to 8.25, DO: 5.6 to 6.4 mg/l, BOD: 2.2 to 2.8 mg/l,
Noise levels Leq (Day and Night)	44.6 to 66.8 for the day time and 37.7 to 57.4 for the Night time.

<table>
<tr><td>Traffic assessment study findings</td><td>

Traffic study has been conducted on Raigurha Road which is approximately 1.0 km from the plant site.
Transportation of raw material, fuel & finished product will be done 70% by road.
Existing PCU is 266 PCU/hr on village road and existing level of service (LOS) is:

<table>
<tr><td>Road</td><td>V (Volume in PCU/hr)</td><td>C (Capacity in PCU/Hr)</td><td>Existing (V/C Ratio</td><td>LOS</td></tr>
<tr><td>Raigurha Road</td><td>266</td><td>2400</td><td>0.11</td><td>A</td></tr>
</table>
* Note: Capacity as per IRC-106:1990 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>Schedule-I species i.e. Elephant is recorded in the buffer zone of plant area. Site Specific Wildlife Conservation Plan has been prepared.</td></tr>
</table>

12.7.13 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 Transportation	Treatment and Disposal
Solid Waste					
1.	Tailings	Iron Ore Beneficiation Plant	2,20,000 TPA	Road	• Dewatered and stored in slime/tailing storage area & the collected water will be recycled in process. • Disposed to construction contractors road construction filings.
Hazardous Waste					
1	Used Oil	-	14.4 KL/A	-	• Storage in containers over concrete floor under well. • Sale to actual users having valid authorisation from SPCB, Odisha.*
2	Oil Residue	-	0.72 KL/A		• Storage in impervious pits/ containers under well ventilated cover shed. • Disposed to Authorized HW incinerator/ Common Hazardous Waste Treatment

					Storage Disposal (CHWTSDF), Jajpur.*
No. of Authorization : IND-IV-HW- 1300/2731, date of issue 16/03/2019, Ref of application: 2128407, dated 21/04/2018 / 14/01/2019.					

12.7.14 Public Consultation:

Project Proponent has reported that Public Consultation is not required as per MoEF&CC Notification No. S.O. 1247(E), dated 18.03.2021, because more than 65% of construction work has been completed.

MoEF&CC's Notification No. S.O. 1247(E), dated 18.03.2021 provides that:

> *"(x) Notwithstanding anything contained above, the projects where construction and commissioning of proposed activities have not been completed within the validity period of the Environmental Clearance (EC) and a fresh application for EC has been submitted due to expiry of the said period of the EC, the concerned Expert Appraisal Committee or State Level Expert Committee, as the case may be, may exempt the requirement of public hearing subject to the condition that the project has been implemented not less than fifty percentage in its physical form or construction."*

12.7.15 The capital cost of project is Rs. 286 Crores. The capital cost for environmental protection measures is Rs. 14.06 Crores. The annual recurring cost towards the environmental protection measures is Rs. 5.88 Crores. The employment generation from the proposed expansion is 400 (Direct additional employment - Regular & Contractual). The details of cost for environmental protection measures is as follows:

Sl. No.	Particulars	Capital Cost (Rs. Crores)	Recurring Cost (Rs. Crores)
1	Air pollution control	11.01	5.32
2	Water pollution control	2.11	0.33
3	Noise pollution control	0.05	0.01
4	Environmental monitoring and management	0.12	0.05
5	Occupational health	0.55	0.08
6	Green belt and Plantation	0.06	0.05
7	EIA/EMP Report	0.16	0.02
	Total	**14.06**	**5.88**

12.7.16 Green belt will be developed in 16.03 ha area which is about 33% of the total project area with total sapling of 40,250 Trees. With the expansion proposal the green belt will be increased from 16.03 ha. Greenbelt @ 2500 trees per hectare will be completed in a within a span of five (5) years with continuous and intensive maintenance.

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

Certified compliance report from Regional Office:

12.7.18 The Status of compliance of earlier EC was obtained from Integrated Regional Office, Bhubaneswar vide letter no. 101-521/EPE dated 20.06.2022 in the name of M/s Sree Metaliks Limited. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Bhubaneswar dated 21.07.2022.

S. No	Non-compliance details	Observation of IRO	Condition no.			Response by PP
			EC date	Specific	General	
1.	The project authorities should establish a proper water storage and treatment facility for optimum utilization of waste water	There is an existing rain water harvesting pond where all the monsoon run off gets collected. However, the project proponent (PP) has identified one more location within the plant premises to collect the run off water for which the drains have been already constructed and the settling pond work is in progress.	13.07.2009	vii		Water required in the plant process is mainly used for cooling purpose and is re-circulated through the process. There is no such trade effluent generated from the process i.e. zero discharge from the process. The run off generated during the monsoon period is being channelized to a settling cum harvesting pond. Action has been initiated to construct a settling cum harvesting pond with increase dimension with network of drains. Drain network more than 70% has been completed. This work will be completed by March-2023. Further, towards treatment of domestic effluent of the plant premises a STP is under construction which will be completed by December 2022. The treated water will be used for plantation and sprinkling purpose.
2.	Details on hazardous wastes, if any, should be submitted to this office	The PP has obtained Hazardous waste Authorization from state Pollution control Board. The handing and storage is being carried out as per the guideline. However there are very less quantity	13.07.2009	xiv		At present only 0.6 MTPA pellet plant is under operation. Very minimal quantity of Hazardous Waste like Used Oil and Waste Containing Oil is generated which is stored as per the guideline of Hazardous and Other Waste (Management and Trans-boundary Movement) Rules, 2016 and amendments thereof. However used oil is being reused for lubrication.

S. No	Non-compliance details	Observation of IRO	Condition no.			Response by PP
			EC date	Specific	General	
		of hazardous waste ie used oil and waste containing oil is stored over an earmarked area.				
3.	A copy of the time bound action plan to reduce solid waste, its proper utilization and disposal should be submitted to this office	The dust collected from the APC device is being fed into the pellet plant itself. No other solid waste are generated presently within the plant premises except scrap. As informed scraps shall be sold to the outside party as when required.	13.07.2009	xv		There is no such solid waste generation from the plant process as only 0.6 MTPA pellet plant is under operation. However, the waste generated during process i.e. dust from ESP is being completely reused in the process. Scraps is / shall be sold to out side party as and when generated.
4.	The project authorities should formulate a comprehensive green belt development plan in consultation with DFO as per the guidelines of CPCB, Detailed information on the species planted and percentage of survival should be communicated to this office	The green belt has been developed over 16 acre of land. Recently additional 8 acre land along the boundary is planted with native species.	13.07.2009	xvii		Out of the total existing plant area i.e. 120 Ac, 40 Ac (33% of the area) need to be covered under plantation. Till date 16 Acre has been covered under plantation with native species like Chakunda, Karanj, Neem, Mango, Radhachuda, Krishnachuda etc. A comprehensive green belt development plan as per the guidelines of CPCB, is being prepared, which will be submitted by month of September 2022. Plantation will be done in the remaining 24 Acre in the upcoming monsoon and shall be completed by 2024
5.	The detailed information on all the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Sector and its status of compliance should be communicated to this office	Condition complied	13.07.2009	xviii		Towards the control of pollution, The project authority installed dust extractor system comprising ESP and multi cyclone installed in the Pellet plant towards control of Air Pollution. Fugitive emission generation points have been provided with suction devices connected to bag filter. Dust suppression system for raw material handling area also provided. Water sprinkling is carried out frequently.

S. No	Non-compliance details	Observation of IRO	Condition no.			Response by PP
			EC date	Specific	General	
						Further, Water required for plant mainly used for cooling & domestic purpose. Hence there is no such trade effluent generated from this activity. There is no chance of overflow of any type of waste water from the premises. The waste generated during technical process i.e. dust from ESP is being completely reused in the process. Hazardous waste i.e. used oil generated from the DG sets are being reused in lubrications. Towards conservation of rain water, roof-top rain water harvesting structure inside the building roof of plant premises has been completed.
6.	The project authorities should inform this Office on the status of implementation of the commitments made during public hearing	Condition complied	13.07.2009	xix		Towards the compliance of commitment made during the public hearing project authorities spend Rs 1.34 Crore as a capital investment and Rs 34.16 lakhs as recurring expenditure. The existing dispensary inside the factory will be shifted to the boundary of the factory premises, so that it can cater better service to villagers, by December -2022. Bridge over Bamuni Nalla is being taken up by State Govt. under DMF.
7.	The project authorities should install a Waste Water Treatment Plant and ensure that all the treated water should be recycled and reused	Condition complied	13.07.2009		vi	As indicate in S No -1,
8.	The project authorities should sent url address of the website wherein the status of compliance of the stipulated environment clearance conditions, including results of monitored data has been uploaded and updated to this office. The project authorities should	Condition complied	13.07.2009		xvi	The project has already the url address i.e. https://sreemetaliks.com, where compliance of the Environmental Clearance conditions and monitoring data are being uploaded. Towards display of the data on criteria pollutant levels namely; SPM, RSPM, S02, NOx (ambient

S. No	Non-compliance details	Observation of IRO	Condition no.			Response by PP
			EC date	Specific	General	
	also display the data on criteria pollutant levels namely; SPM, RSPM, S02, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project at convenient location near the main gate of the company in the public domain.					levels as well as stack emissions), we have displayed it near the main gate which is being updated every month. The Electronic display board has been installed at the main gate.

Deliberations by the Committee

12.7.19 The Committee noted the following:

1. The EAC deliberated on the certified compliance report of IRO dated 20.06.2022. The EAC observed that IRO has pointed out partial compliance of some of the conditions and has sought information / action plan on the same. PP has submitted the ATR on 21.07.2022 to IRO but has not obtained closure report on the partially complied conditions from IRO. The EAC is of the view that closure report from IRO shall be submitted for further action on the proposal.

2. The EAC observed that Schedule-I species i.e. Elephant is recorded in the buffer zone of plant area. The project proponent reported that Site Specific Wildlife Conservation Plan has been prepared but approval has not been obtained. However, the PP has not submitted the copy of the conservation plan and also the letter submitted to State Forest Department for approval of the same. The EAC if of the view that project proponent shall submit copy of the prepared conservation plan and the letter submitted to State Forest Department for approval along-with the updated status.

3. The EAC noted that the existing project was accorded environmental clearance letter dated 13.07.2009 and M/s Sree Metaliks Limited has applied for fresh EC on account of expiry of validity of previous EC. Further, M/s Sree Metaliks Limited has reported that more than 65% of construction work has been completed for the facilities proposed in the instant proposal and Public Consultation is not required as per MoEF&CC Notification No. S.O. 1247(E), dated 18.03.2021 which reads as follows:

"(x) Notwithstanding anything contained above, the projects where construction and commissioning of proposed activities have not been completed within the validity period of the Environmental Clearance (EC) and a fresh application for EC has been submitted due to expiry of the said period of the EC, the concerned Expert Appraisal Committee or State Level Expert Committee, as the case may be, may exempt the requirement of public hearing subject to the condition that the project has been implemented not less than fifty percentage in its physical form or construction."

The EAC made a note that in case more than 65% of construction work has been completed, Public Consultation may not be required as per MoEF&CC Notification No. S.O. 1247(E), dated 18.03.2021. However, the Committee is of the opinion that M/s Sree Metaliks Limited shall submit compliance of the earlier public hearing issues and also submit action plan for non-complied issues raised during the public hearing in conformity to MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30/09/2020.

4. To ascertain that more than 65% of construction work has been completed for the facilities proposed in the instant proposal, project proponent is required to submit financial statement in the form of CA certificate pertaining to construction activities undertaken. PP shall also submit in a tabular form, the project work undertaken related to the construction of facilities proposed in the instant proposal along with financial aspects.

5. The EAC deliberated on the greenbelt development and is of the view that since the EC was granted way back in 2009, PP should have developed greenbelt in 33% of the total project area. However, the same is not completed. In this regard, project proponent shall submit the details of existing greenbelt and the proposed greenbelt and also undertake to complete the greenbelt development in this monsoon of 2022.

6. Baitarani River, Malda River, Jagdhala Nala, Bamni Nalla, Chamda Nala and Kadal Nala exists within the study area. PP is required to submit the detailed management plan/conservation plan including technical and financial aspects to ensure that the water bodies will not be disturbed.

7. The project proponent is required to submit an undertaking for installation of CAAMQS by the end of December, 2022.

8. The EAC noted that project proponent has not reported Incremental GLC / AAQ modelling data for $PM_{2.5}$, SO_2, NOx and CO. The project proponent shall submit the same.

9. The Unit is to provide Action Plan to monitor coke/coal dust exposures in different process plants using personal and area air samplers and to compare with permissible limits as per Indian Factories Act, 1948.

10. Project Proponent has submitted Traffic assessment study findings for the existing scenario. It is required to submit the traffic data in post project scenario along with LOS details.

Recommendations of the Committee

12.7.20 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** due to certain deficiencies in the proposal and sought requisite information on the points referred at para no. 12.7.19 above. The proposal shall be considered after submission of requisite information in next EAC meeting.

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Re- Consideration of Environmental Clearance

Agenda No. 12.8

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

[Proposal No. :IA/CG/IND/276148/2020; File No. J-11011/170/2007-IA.II(I)]
[Consultant: B. S. Envi-Tech Pvt. Ltd. ; Valid upto 15.05.2023]

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

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

Details submitted by the project proponent

12.8.3 The detail of the ToR is furnished as below:

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

12.8.4 The project of M/s. Ind Synergy Ltd (ISL) located in Village Kotmar and Mahupalli, Raigarh Tehsil, Raigarh District, Chhattisgarh is for expansion of Integrated Mini Steel Plant - Sponge Iron Plant (DRI Plant) from 3,00,000 to 6,30,000 TPA, Power Plant of WHRB from 24 MW to 49 MW & Installation of 50 MW CFBC Power Plant, Steel Billet MS Steel billet Alloy / Stainless steel (SMS) from 1,40,000 to 4,40,000 TPA, Coal Washery from 7,20,000 to 9,00,000 TPA, Cold Pigs 3,00,000 TPA, Sinter Plant -4,40,000 TPA, Pellet Plant - 6,00,000 TPA, Rolling Mills (Rebar cum Wire Rod Mill) - 5,00,000 TPA, Ductile Pipe Plant - 2,00,000 TPA, Oxygen Plant – 70 TPD, Ferro Alloy Plant - 30,000 TPA and Cement Grinding unit (for PPC, PSC and CC production) - 5,00,000 TPA.

12.8.5 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: 103.65 Ha.</td><td>Total land area for the project: 103.65 Hectares, (62.25 Ha. Govt Lease Land (CSIDC) and 41.4 Ha is Pvt Land of Ind Synergy)</td><td>Land use:
<table>
<tr><th>S. No</th><th>Description</th><th>Before Expansion</th><th>After Expansion</th></tr>
<tr><td>1</td><td>Proposed Built up area Manufacturing units</td><td>18.25</td><td>35.0</td></tr>
<tr><td>2</td><td>Internal roads</td><td>6.65</td><td>9.27</td></tr>
<tr><td>3</td><td>Solid waste storage</td><td>0.90</td><td>1.2</td></tr>
<tr><td>4</td><td>Storage yard</td><td>4.7</td><td>5.23</td></tr>
<tr><td>5</td><td>Railway sliding</td><td>5.75</td><td>5.75</td></tr>
<tr><td>6</td><td>Water reservoir</td><td>2.0</td><td>2.0</td></tr>
<tr><td>7</td><td>Staff Quarters</td><td>1.2</td><td>1.2</td></tr>
<tr><td>8</td><td>Raw material storage</td><td>5.26</td><td>5.26</td></tr>
<tr><td>9</td><td>Greenbelt</td><td>34.2</td><td>34.2</td></tr>
<tr><td>10</td><td>Open area</td><td>22.74</td><td>2.54</td></tr>
<tr><td>11</td><td>Parking</td><td>2.00</td><td>2.00</td></tr>
<tr><td></td><td>Total land</td><td>103.65</td><td>103.65</td></tr>
</table></td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>The vacant land of 24.74 Ha will be used for the proposed expansion which is within plant premises and 78.91 Ha Present activities including greenbelt. No additional land will be acquired.</td><td>-</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Existing land will be utilized for expansion.

Nearest Village:
1. Kotmar - 0.70 km – N
2. Siarpali – 0.90 km – SW</td><td>No R&R.</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of <u>all corners</u> of the project site.</td><td>
<table>
<tr><th>S.NO</th><th>LATITUDE “N”</th><th>LONGITUDE “E”</th></tr>
<tr><td>1.</td><td>21°52'54.51"N</td><td>83°29'27.79"E</td></tr>
<tr><td>2.</td><td>21°52'46.09"N</td><td>83°30'11.63"E</td></tr>
<tr><td>3.</td><td>21°52'30.14"N</td><td>83°30'8.94"E</td></tr>
<tr><td>4.</td><td>21°52'26.05"N</td><td>83°30'11.63"E</td></tr>
<tr><td>5.</td><td>21°52'21.68"N</td><td>83°30'10.10"E</td></tr>
<tr><td>6.</td><td>21°52'24.67"N</td><td>83°30'4.30"E</td></tr>
</table></td><td>-</td></tr>
</table>

S. No.	Particulars	Details	Remarks
		7. 21°52'22.94"N 83°30'1.61"E 8. 21°52'24.62"N 83°29'59.62"E 9. 21°52'21.39"N 83°29'58.04"E 10. 21°52'21.56"N 83°29'56.02"E 11. 21°52'24.04"N 83°29'54.77"E 12. 21°52'24.04"N 83°29'45.20"E 13. 21°52'22.08"N 83°29'44.38"E 14. 21°52'26.15"N 83°29'27.98"E 15. 21°52'28.35"N 83°29'24.85"E 16. 21°52'48.01"N 83°29'28.83"E 17. 21°52'37.74"N 83°29'26.74"E 18 21°52'38.46"N 83°29'23.07"E 19 21°52'40.46"N 83°29'23.68"E 20 21°52'40.50"N 83°29'27.32"E	
v.	Elevation of the project site	232 m above msl	-
vi.	Involvement of Forest land if any.	No Forest Land Involved	-
vii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	No water Bodies exists in project area **Study area** 1. Sapnal Nala – 0.8 km – NE 2. Nearest Water Body – 1.3 km - W	HFL : 0.8 km
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/	Nil. Nearest Reserved Forests: 1. Mauhapali PF – Adjacent in E 2. Kukurda RF – 1.2 km – E 3. Salheona PF – 1.1 km – SE	-

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

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

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

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

12.8.7 Implementation status of the existing EC:

S. No.	Type of product	As per EC dated 14.12.2006	As per EC dated 23.12.2008	Implementation Status (Existing Production capacity and configuration TPA)	Production as per CTO dated 28.02.2020	Statutory Clearances
1	Sponge Iron Plant (DRI Plant)	4,00,000 TPA	4,00,000 TPA	3,00,000 (3 X 350 TPD)	3,00,000 (3 X 350 TPD)	EC obtained vide F. No. J-11011/313/2006-IA II (I) dated 14.12.2006. Renewal of the CFO obtained Vide 10690/TS/CECB/ 2020 Nava Raipur Atal Nagar, Raipur, Dated 28/02/2020 and Validity up to 28/02/2023.
2	Power Plant (WHRB)	32 MW	32 MW	24MW	24 MW	
3	Power Plant (FBC)	25 MW	75 MW	-	-	
3	Steel Billet MS Steel billet Alloy / Stainless steel (SMS)	2,30,000 TPA	2,30,000 TPA	1,40,000 (5 x 6 Tonnes) +(1X12Tonnes) Induction (existing) Furnace.	1,40,000 TPA	
	Steel Billet Round/square billet	-	2,61,000 TPA		-	
4	Rolling Mill	2,00,000 TPA	2,00,000 TPA		-	
5	Coal Washery	7,20,000 TPA	7,20,000 TPA	7,20,000	7,20,000 TPA	
6	Iron ore crusher (Crushed Iron Ore)	14,40,000 TPA	14,40,000 TPA	14,40,000	14,40,000 TPA	
7	Cold Pigs	-	49,300 TPA	49,300	-	EC was obtained vide letter no. J-11011/170/007-IA II (I) dated 23.12.2008 (expired on 22.12.2018)
8	Section mill (Stainless & Steel Grades – rounds, angles & channels, flats)	-	60,000 TPA	-	--	
9	Wire rod mill (Alloy steek coils)	-	90,000 TPA	-	-	
10	Seamless Tube Plant	-	90,000 TPA	-	-	

S. No.	Type of product	As per EC dated 14.12.2006	As per EC dated 23.12.2008	Implementation Status (Existing Production capacity and configuration TPA)	Production as per CTO dated 28.02.2020	Statutory Clearances
	(Alloy Steel Grades)					
11	Sinter Plant	-	-	4,40,000 (1 X 36M^2) As per EIA Report (2008) – 1x24m^2	-	
12	Blast Furnace	-	-	3,00,000 (1 X 260M^3) As per EIA Report (2008) – 1x262 m^3	-	

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

S. No	Type of product	Existing Production capacity and configuration TPA	Proposed Production capacity and configuration TPA	Total production capacity and configuration after expansion TPA	Remarks
1	Sponge Iron Plant (DRI Plant)	3,00,000 (3 X 350 TPD)	3,30,000 (2 X 500 TPD)	6,30,000 3 X 350 TPD, 2 X 500 TPD	Two more units of 500 TPD each to be installed For Sponge Iron additional production 3,30,000 TPA.
2	**Power Plant Internal Consumption**				
	Power Plant (CFBC)	-	50 MW (2 x 25 MW & TG Set)	50 MW	New unit – Applying for EC
	Power Plant (WHRB)	24MW	25 MW (2x12.5 MW & TG set)	49 MW	Addition of 2x50 TPH Boilers and 2x12.5 MW TG Set for power generation
3	Steel Billet MS Steel billet Alloy / Stainless steel (SMS)	1,40,000 (5 x 6 Tonnes) +(1X12Tonnes) Induction (existing) Furnace.	3,00,000 (1 X 12T and 4X25 Tonnes) Induction Furnace.	4,40,000	Addition of 1 X 12 T and 4X25 Tonnes Induction Furnace in the existing unit (8 heats/day)
4	Coal Washery	7,20,000	1,80,000	9,00,000	Upgradation of Existing Coal Washery from 720000 TPA to 900000 TPA
5	Iron ore crusher (Crushed Iron Ore)	14,40,000	-	14,40,000	No change in capacity

S. No	Type of product	Existing Production capacity and configuration TPA	Proposed Production capacity and configuration TPA	Total production capacity and configuration after expansion TPA	Remarks
6	Cold Pigs	49,300	2,50,700	3,00,000	Units already installed but not operated due to expiry of EC Applying for obtaining Fresh EC alongwith 2,50,700 TPA Pigs production
7	Sinter Plant	4,40,000 (1 X 36M^2)	-	4,40,000 (1 X 36M^2)	
8	Blast Furnace	3,00,000 (1 X 260M^3)	-	3,00,000 (1 X 260M^3)	
9	Pellet Plant	-	6,00,000 (1x0.6 MTPA)	6,00,000 (1 x 0.6 MTPA)	New unit – Applying for EC
10	Rolling Mills (Rebar cum Wire Rod Mill)	-	5,00,000	5,00,000	New unit – Applying for EC
11	Ductile Pipe Plant	-	2,00,000	2,00,000	New unit – Applying for EC
13	Oxygen Plant	-	70 TPD (1,56,00,000 cum/a)	70 TPD (1,56,00,000 cum/a)	70 TPD, New unit – Applying for EC
13	Ferro Alloy Plant	-	30,000	30,000	2X9 MVA Furnace, New unit – Applying for EC
14	Cement Grinding unit (for PPC, PSC and CC production)	-	5,00,000	5,00,000	Vertical Roller Mill New unit – Applying for EC

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

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

Raw material	User	Existing	Additional	Total	Storage Quantity	Type of storage	Source
Slag	Cement Plant	-	3,66,111	3,66,111	1000	Open	In house/market
Gypsum	Cement Plant	-	25,000	25,000	100	Closed	market
Clinker	Cement Plant	-	1,50,000	1,50,000	500	Open	market
Mn.ore	MBF & Ferro alloy	-	70,500	70,500	300	Open	Open market
		8,87,310	**26,61,988**	**35,49,298**			

12.8.10 The existing water requirement is 2511 m^3/day. Water requirement of proposed expansion is about 9726 m^3/day. The total water requirement after expansion will be 12,237 m^3/day. ISL has obtained consent for drawl of water from Sapnai river (16,800 m^3/day) from Water Resources Department, Govt. of Chhattisgarh, vide Memo No. 4632/SAC/07-08 dated 16.10.2007.

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

12.8.12 Baseline Environmental Studies

Period	Post Monsoon Season, 2020 (October'2020, November'2020 and December'2020)
AAQ parameters at 08 Locations	• $PM_{2.5}$ = 29 to 39 μg/m^3 • PM_{10} = 68 to 78 μg/m^3 • SO_2 = 15 to 22 μg/m^3 • NOx = 27 to 34.0 μg/m^3 • CO: less than 1 ppm
AAQ modelling (Incremental GLC)	• PM_{10} = 7.27 μg/m^3 - 3.30 km - S direction • $PM_{2.5}$ = 2.18 μg/m^3 - 3.30 km - S direction • SO_2 = 12.11 μg/m^3 - 6.70 km - S direction • NOx = 12.11 μg/m^3 - 6.7 km - S direction • CO = <1144 μg/m^3 - along the transportation route • Model used: AERMOD – Version 10.0
Ground water quality at 08 locations	• pH = 6.88 – 7.90 • Total Hardness = 114 - 508 mg/l • Chlorides = 4.9 – 121.9 mg/l • Fluoride = 0.10 – 0.18 mg/l • Heavy Metals (Zinc) = Below Detectable Limits
Surface water quality at 02Locations	• pH: 7.76 to 7.90; • DO: 4.8 to 5.2 mg/l; • BOD: 3.8 to 8.2 mg/l. • COD from 24.0 to 64.0 mg/l

Noise Levels At 08 Locations	45.0 to 54.9 dB (A) for the day time 35.1 to 53.3 dB (A) for the Night time.

Traffic assessment study Findings

- Traffic study has been carried out at two locations

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

2. Traffic study Monitoring point after Mahapalli at Kotmar to NH (Raigarh to Sundargarh) to have information on present traffic.
   - Type of Road: Arterial - 2 lane divided (2 way) road
   - PCU limit: 1500 PCU per hour

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

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

- PCU load after Expansion:

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

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

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

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

- ❑ **PARKING FACILITIES:**
  Area Earmarked: 2.00 Ha

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

Flora and fauna

List of Schedule-I Species Present in Study Area

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

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

Conservation Budget: Rs. 36.20 Lakhs

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

SOLID WASTE GENERATION AND UTILIZATION

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

S. No	Plant/Facility	Specific Generation T/T of Product	Quantity (TPA)	DISPOSAL
2	**POWER PLANT – COAL**			
	Bottom & Fly Ash from Char (60% Ash)	0.180	73597	Cement production Flyash generated from the power plant will be disposed to cement plants for PPC production Bottom ash will be disposed as aggregated for road construction in the area
	Bottom & Fly ash from Indian Coal fines (40% Ash)	0.252	102697	
	Bottom & Fly Ash from Char (60% Ash)	0.180	14719	
	Bottom & Fly ash from Indian Coal fines (40% Ash)	0.252	20539	
3	**STEEL MELTING SHOP- SMS-I**			
	BF dust/ Ferrous dust	0.10	14256	Presently slag is disposed for filling low lying areas. After expansion, it will be used in the proposed Cement grinding unit
	Slag	0.020	2851	
4	**STEEL MELTING SHOP- SMS-II**			
	BF dust/ Ferrous dust	0.10	26400	Presently slag is disposed for filling low lying areas. After expansion, it will be used in the proposed Cement grinding unit
	Slag	0.020	5280	
	Coal washery rejects			
5	**PELLET PLANT**			
	Dust (Iron Ore, Coke, Coal Fines)	0.023	13584	Recycled back to process
6	**ROLLING MILL**			
	Reject	2.5	12955	Miss-Roll and End Cuts (100%) are/will be used in captive consumption in Steel Melting Shop as raw materials.
	Mill Scale	1.0	5180	
7	**FERRO ALLOY**			
	Slag from Si-Mn SAF	0.850	12750	100% Mill scale will be used for captive consumption in Ferro Alloys Plant as raw material. Ferro Alloy slag generated will be used in cement grinding unit.
	Dust From SAF	0.800	12000	
	SINTER PLANT			
	Sinter Return Fines	0.250	110000	
8	**BLAST FURNACE**			
	Slag	0.350	105000	Slag generated from the BF and SMS will be sent to slag granulation plant and to Slag Plant. Slag will be utilized for production of Portland slag cement and for GGBF production for disposal as product.
	Dust Removed from Primary dust catchers & BF gas cleaning	0.020	6000	
	BF Gas	2.244	673050	
9	**DUCTILE PIPE PLANT**			
	Melting Skull/Slag	0.085	16947	Slag will be utilized for production of Portland slag cement and for GGBF production for disposal as product.
	Rejections	0.077	15471	
	Runner Sand Bag & Slag	0.088	17579	
10	**BILL CASTER (EXISTING)**			
	Scrap	0.01	1425	Recycled back to process
	Scale	0.01	1425	
11	**BILL CASTER (PROPOSED)**			
	Scrap	0.01	4065	Recycled back to process
	Scale	0.01	4065	
12	**SLAG PLANT**			
	GGBS	1.000	329500	-

S. No	Plant/Facility	Specific Generation T/T of Product	Quantity (TPA)	DISPOSAL
	Ash	0.002	789	

HAZARDOUS WASTE GENERATION

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

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

12.8.14 Public Consultation

Details of advertisement given	Notice made through advertisement in the Newspapers'' Times of India." (English News Paper) and Nayi Duniya & Krantikari Sanket (Hindi News Paper) on 29.06.2021 and 29.06.2021 respectively.
Date of public consultation	30.07.2021
Venue	Ground opposite to Ind Synergy Ltd., Kotmar and Mahuapalli Villages, Raigarh Tehsil, Raigarh District, Chattishgarh State
Presiding Officer	Additional District Magistrate, Raigarh
Major issues raised	❖ Proper Wages ❖ Road to be laid from Kotmar to Mauhapalli ❖ Employment to locals ❖ Sponsoring youth for Mechanic Training ❖ Renovation of Religious places

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

S. No	Details	Basis	Activity	Year 22-23	Year 23-24	Year 23-24	Total
1		Public Hearing	Physical Nos	5	-	-	5

S. No	Details	Basis	Activity	Year 22-23	Year 23-24	Year 23-24	Total
	Providing RO plants – 200 Lit /Hr @ Rs 3 Lakh /Plant	and Need Based Requirement	@Village	Kotmar, Mauhapalli, Kotarliya, Siyarpalli &Patrapalli	-	-	-
			Budget Rs Lakhs	15	-	-	15
2	Community Toilet with Batch Facility with full fledged water supply (with four WC facility and four Bath Rooms)	Public Hearing and Need Based Requirement	Physical Nos	3	-	-	3
			@Village	Kotmar, Mauhapalli & Tilga			
			Budget Rs Lakhs	45	-	-	45
3	Providing assistance to Schools by providing LapTops	Need Based Requirement	Physical Nos	5	5	-	10
			@Village	Kotmar	Mauhapalli	-	
			Budget Rs Lakhs	2.5	2.5	-	5.0
4	Providing rainwater harvesting Pits in coordination with Panchayats (10 pits in each village)	Need Based Requirement	Physical Nos	10	10	4	24
			@Village	Kotmar	Mauhapalli	Kotarliya	
			Budget Rs Lakhs	2.5	2.5	1	6.0
4	Providing Borewells in consultation with Panchayat (Drilling and providing taps)	Need Based Requirement	Physical Nos	5	-	-	5
			@Village	Kotmar Mauhapalli &Kotarliya	-	-	-
			Budget Rs Lakhs	12.5	-	-	12.5
5	Laying of Road 5 km length from Kotmar to Mauhapali with plantation on either side of Road @ 3 m distance with 3300 saplings	Public Hearing Demand	Physical Nos	5 km Road			
			@Village	Kotmar - Mauhapalli			
			Budget Rs Lakhs	70			70.00
6	Construction of individual Toilets for 10 Houses	Need Based Requirement	Physical Nos	10	-	-	10
			@Village	Kotmar, Mauhapalli & Dipapara	-	-	-

S. No	Details	Basis	Activity	Year 22-23	Year 23-24	Year 23-24	Total
			Budget Rs Lakhs	5.0	-	-	5.0
7	Renovation of Religious places	PH demand	Physical Nos	2	2	1	4
			@Village	Kotmar	Mauhapalli	Siyarapali	
			Budget Rs Lakhs	5	5	2.5	12.5
8	Solar lights to villages on main streets (2 posts (4 lights) at each village	Need Based Requirement	Physical Nos	6	-	-	6
			@Village	Kotmar , Mauhapalli & Bhagora	-	-	-
			Budget Rs Lakhs	6	-	-	6
9	Garbage collection trolleys – 4 numbers for each village	PH demand	Physical Nos	8	-	-	8
			@Village	Kotmar, Mauhapalli		-	
			Budget Rs Lakhs	2	-	-	2
10	Community hall construction (100 persons occupancy)	Need Based Requirement	Physical Nos	1	1	-	2
			@Village	Kotmar	Mauhapalli	-	
			Budget Rs Lakhs	5	5	-	10
11	Sponsoring youth for Mechanic Training in the fields of electrical, welding, plumbing, auto mechanic – providing Tools – 50 persons (25 from each village) for 5 year	Public Hearing and Need Based Requirement	Physical Nos	25	25	-	50
			@Village	Kotmar, Mauhapalli and other villages within 3 km			
			Budget Rs Lakhs	10 (for five years)	10 (for five years)	-	20 (for five years)
12	Construction of self-help groups Welfare center in consultation and handing over to panchayat	Public Hearing and Need Based Requirement	Physical Nos	1	1	-	2
			@Village	Kotmar	Mauhapalli	-	
			Budget Rs Lakhs	5	5	-	10
13	Construction of Market Yard – Platforms and	Need Based Requirement	Physical Nos	2	-	-	2
			@Village	Kotmar & Mauhapalli	-	-	-

S. No	Details	Basis	Activity	Year 22-23	Year 23-24	Year 23-24	Total
	Sheds in consultation with panchayat		Budget Rs Lakhs	10	-	-	10
Total (Rs Lakhs)							**229**

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

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

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

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

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

Certified Compliance report from Integrated Regional office

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

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

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

S.No.	Observation reported on 11.11.2021 by IRO MoEFCC	Compliance Status as on 28.06.2022	Observation Reported on 14.06.2022 / documents submitted on 29.04.2022 and 28.06.2022
			commissioned by 30.04.2023. An undertaking in this regard has been submitted to this office.
IV	Solid waste stored inside the plant has not been utilized for sponge iron standards and AFBC boiler has not been installed.	Regular Solid Waste Utilization for sponge iron standards shall be ensured. MOU and PO for the Dolochar& SMS slag utilization has been executed. Copies of the MOUs and PO arc attached as Annx. B. Rare Earth Drum (RED) Magnetic separator of Rs. 40 lakhs has been ordered to separate the magnetic particles from the char. Use of Demag Char in AFBC boilers enhances Campaign life thus utilization increases substantially. Annx C. Commissioning is expected by August 2022. After commissioning of the RED photographs shall be submitted.	On the day of monitoring it has been observed that most of the dolochar and SMS slag has been removed by the PP, no dust has been observed on internal roads of the plant and housekeeping was found almost satisfactory. In addition to that PP has submitted Moll's and PO for dolochar and SMS slag unit to this office. In addition to that PP informed that AFBC boiler. DB plate replacement with Sparge Hopper Arrangement is proposed, which will enable to utilize Char in AFBC up to more than 60% of current utilization. The details of the same has been submitted to this office. PP also informed that they are replacing existing Bagfliters with new bagfliters and procurement of truck mounted vaccum sweeping machines is under process. The PO order of the same has been submitted to this office. PP assured to submit the compliance of the same to this office.
V	Current plant layout indicating green belt covering 33 % of area has not been submitted.	An undertaking that total 103.65 Hectares of Land is currently under possession of Ind Synergy Ltd. and out of which, 33% (approx. 35 Hectare Land) is under Green Belt. Further Ind Synergy Ltd. undertakes that no additional land will be acquired for the proposed project expansion and existing 33% green Belt area (35 Hectare Land) shall neither be encroached , nor any tree felling will be done for the proposed expansion activities. Annexure H	PP has submitted an undertaking along with plant layout indicating 33% of green belt developed in the existing plant area to this office.
VI	The Conservation plan for the conservation of wild fauna has not been finalized by expediting the matter with the State Forest Department.	Final approval of the Conservation Plan of Rs. 36.20 Lakhs has been accorded by the office of the Chief Wild Life Warden, Raipur. Annexure 1.	PP has submitted a copy of final approval of the Conservation Plan of Rs. 36.20 Lakhs accorded by the office of the Chief Wild Life Warden, Raipur to this office.
vii.	Socio - economic development programs, educational programs , drinking water supply and	Details of socio - economic development activities proposed for 2022-23 is attached as Annexure - J.	PP has submitted expenditure details of public hearing and need based commitments action plan and budget of FY 2022-2023 to this office.

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

12.8.19 The proposal was initially considered in the 10th meeting of the EAC for Industry-I sector held on 1-3rd August, 2022 wherein the Committee deferred the proposal on account of the following technical shortcomings. The deliberations and recommendations of the EAC are as follows:

Deliberation by the Committee (EAC during 1-3rd August, 2022)

12.8.20 The Committee noted the following:

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

9. The PP has to furnish details of respirable dust for coal dust exposures - concentrations measured in coal handling areas suing personal/area air samplers. Report has to be furnished.
10. EAC also noted that the Consultant has only visited the site in year 2020. In this context, the EAC advised that the Consultant shall visit the project site and accordingly advise the PP on the implementation of the mitigation measures for compliances of EC conditions.

Recommendations of the Committee (EAC during 1-3rd August, 2022)

12.8.21 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** and sought requisite information on the points referred at para no. 12.8.20 above. The proposal shall be considered after submission of requisite information on Parivesh Portal.

12.8.22 Based on the above, ISL submitted the ADS reply vide letter dated 20.08.2022 uploaded on PARIVESH on 21.08.2022. Point-wise reply of ADS is given as below:

1. **Point -1: The Committee observed that the project proponent has not properly submitted the implementation status of the facilities granted vide EC dated 14.12.2006, 23.12.2008 vis-a-vis CTO dated 28.02.2020. The EAC advised to submit the revised information in separate columns for each of the permissions granted and the present production details as per the latest CTO granted by SPCB.**

   Submission: The details of units alongwith EC, CTE and CTO are given below:

UNITS IMPLEMENTED ALONGWITH EC, CTE AND CTO

Sl.No.	EC Details	Production (MTPA)	Units	CTE	EC and /CTE permit-ed Production Quantity	Implemented Production Quantity	CTO	Extant CTO
1	-	**DRI - Sponge Iron – Kiln**	**TPA**	1. Vide Letter No 4270/B-203/TS/CECB /2003 Raipur, dated 11.08.2003 2.Amendment - Vide Letter No: 303/CECB 2004 Raipur/ dated 27.01.2004	1,00,000	1,00,000	Earlier CFO: 1. Vide Letter No 1927 & 1929 /TS/CECB/2004 Raipur, dated 29.05.2004 (Air) & (Water) 2.Vide Letter No 1500 & 1502/TS/CECB/2005 Raipur, dated 02.04.2005 (Air) & (Water)	**Unit was under possession of Banks, from 2012-2018 owing to NPA Status.** **After Change in management and restructuring of loans, Clubbed CTO for the implemented Production facilities and quantities was obtained.**
		Waste Heat Recovery Power	**MW**		8	8		
		Steel Billet	**TPA**		1,40,000	1,40,000		

Sl.No.	EC Details	Production (MTPA)	Units	CTE	EC and /CTE permit-ed Production Quantity	Implemented Production Quantity	CTO	Extant CTO
				3. Amendment - Vide Letter No: 1884/CECB/2004 Raipur/ dated 28.05.2004				CECB CTO Renewal letter No. 2641 & 2643/TS/CECB/2018 dated 27.06.2018 Valid up to 29.02.2020 Renewal of the CTO obtained Vide 10690/TS/CECB/ 2020 Nava Raipur Atal Nagar, Raipur, Dated 28/02/2020 and Validity up to 28/02/2023.
2	F. No. J-11011/313/2006-IA II (I) 14.12.2006	**DRI - Sponge Iron – Kiln**	**TPA**	490/TS/CECB/2007 dated 06.04.2007 **Partially implemented** **(Enclosed as Exhibit – 3)**	3,00,000	2,00,000	1.CTO 3993 & 3995/TS/CECB/2007 dated 18.07.2007 2. Amendment - Vide Letter No: 866 & 868/CECB 2008 Raipur/ dated 18.02.2008 3. Amendment - Vide Letter No: 1402/CECB/2009 Raipur/ dated 06.06.2009	
		Waste Heat Recovery Power	**MW**		24	16		
		Crushed Iron Ore	**TPA**		14,40,000	14,40,000		
		Coal Washery	**TPA**		7,20,000	7,20,000		
3	F. No. J-11011/170/2007-IA II (I) 23.12.2008	**Cold Pigs**	**TPA**	245/TS/CECB/2009 dated 17.04.2009 **Partially implemented**	49300 TPA pigs & *Hot metal input from Blast Furnace - 1 x 260 m^3 (useful volume) ; Input to Blast Furnace is from Sinter Plant of 1 x 36 m^2 *Implemented and not operational : Blast	49300 TPA pigs & *Hot metal input from Blast Furnace - 1 x 260 m3 (useful volume) ; Input to Blast Furnace is from Sinter Plant of 1 x 36 m2 *Implemented and not operational : Blast Furnace, Sinter	CTO 7309 & 7311/TS/CECB/2012 dated 27.02.2012	

Sl.No.	EC Details	Production (MTPA)	Units	CTE	EC and /CTE permit-ed Production Quantity	Implemented Production Quantity	CTO	Extant CTO
					Furnace, Sinter Plant and Cold Pigs	Plant and Cold Pigs		

PRODUCTION CAPACITY OF THE PLANT AFTER EXPANSION
(PRESENT PROPOSAL)

S. No	Type of product	Proposed Production capacity (additional) TPA
1	Sponge Iron Plant (DRI Plant)	3,30,000
2	Power Plant (CFBC), MW	50
	Power Plant (WHRB), MW	25
3	Steel Billet MS Steel billet Alloy / Stainless steel (SMS)	3,00,000
4	Coal Washery	1,80,000
5	Iron ore crusher (Crushed Iron Ore)	-
6	Pellet Plant	6,00,000
7	Rolling Mills (Rebar cum Wire Rod Mill)	5,00,000
8	Ductile Pipe Plant	2,00,000
9	Oxygen Plant	70 TPD
10	Ferro Alloy Plant	30,000
11	Cement Grinding unit (for PPC, PSC and GGBF production)	5,00,000
12	Cold Pigs	2,57,000+ *49,300
13	Sinter Plant	*4,40,000
14	Blast Furnace (including cold pig iron)	*3,00,000
Note: *Installed, Not commissioned (EC obtained - letter no. J-11011/170/007-IA II (I) dated 23.12.2008)		

2. Point - 2: The PP has very casually prepared the Water balance diagram and not able to give satisfactory reply raised by EAC Members on proper utilization of Water in their Plant/Unit. They have also not taken into consideration further ETP development. The PP should take proper exercise and put their proposal in next EAC meeting.

Submission: The details are as given below:

WATER REQUIREMENT CALCULATION

S. No.	UNIT	Capacity / Size	Annual Production T/A	Daily Production T/Day	*Specific Water Consumption* m^3/T	Water Requirement m^3/Day
EXISTING UNITS						
1	DRI Plant	3 X 350 TPD	300000	909	***0.9***	818

S. No.	UNIT		Capacity / Size	Annual Production T/A	Daily Production T/Day	*Specific Water Consumption m^3/T*	Water Requirement m^3/Day
2	Coal Washery		150 TPH	720000	3000	***0.02***	67
3	SMS- Induction Furnace based		5 x 6 t +1 X 12t	140000	424.2	***1.5***	636
4	Power Plant Internal Consumption Power Plant (WHRB)		24 MW	184,320 MW	576	***1.5 /MW***	864
5	Drinking and domestic use	Plant	533 Persons	-	-	***0.050 PCA***	27
		Colony	A-Type – 3 BHK – 7 B Type – 2 BHK – 24 flats B Type – 1 BHK – 36 flats Bachelor Engineers Hostel – 24 rooms	225 persons + miscellaneous	-	***0.135 PCA***	35
6	Plantation						23
						Total (A)	**2470**
PROPOSED UNITS (AT EXPANSION)							
7	Pellet Plant		1 x 0.6 MTPA	600000	1818	***0.3***	545
8	DRI Plant		2 X 500 TPD	330000	1000	***0.9***	900
9	SMS Induction Furnace based		4 X 25t + 1 X 12t	300000	909.1	***1.5***	1364
10	Rolling Mills Rebar cum Wire Rod Mill		0.5 mtpa	500000	1667	***0.6***	1000
11	DI Pipe Plant		0.2 mtpa	200000	606	***1.25***	758
12	Oxygen Plant		70 TPD	15,600,000 cum/a	44,616 cum/day	***1***	45
13	Power Plant (AFBC)		50 MW	408,000 MW	1275	***1.5 /MW***	1913
14	Power Plant (WHRB)		25.0 MW	192,000 MW	600	***1.5 /MW***	900
15	Ferro Alloy Plant		30000 tpa	30000	94	***1.5***	141
16	Coal Washery		40 TPH	120000	960	***0.02***	20
17	Sinter Plant		36 Sq M	440000	1333	***0.3***	400
18	Blast Furnace		260 Cum M	300000	858	***1.5***	1287
19	Portland Slag Cement Plant		500000 tpa	500000	1563	***0.24***	375
20	Drinking and domestic use	Plant	1889	-	-	***0.050 m^3/Person/day***	94.0
		Colony	Guest House – 15 Bed Rooms Bachelor Engineers Hostel – 30 rooms	185	-	***0.135 m^3/Person/day***	25.0

S. No.	UNIT		Capacity / Size	Annual Production T/A	Daily Production T/Day	*Specific Water Consumption* m^3/T	Water Requirement m^3/Day
			Girls Hostel – 10 rooms Residential Shopping complex - 20 Sports complex				
						Total (B)	**9767**
						Grant Total (A+B)	**12237**

WATER BALANCE (M^3/DAY)

S. No.	UNIT		Water Requirement M3/Day	Evaporation (EL) / Process Loss (PL)/ Drift Loss (DL)	Waste Water
EXISTING UNITS					
1	DRI Plant		818	801(EL)	17
2	Coal Washery		67	59 (PL)	8
3	SMS- Induction Furnace based		636	477 (PL)	159
4	Power Plant (WHRB)	Cooling Water	790	633 (EL+DL)	157
		DM Plant Regen	54	0	54
		Boiler makeup	20	15 (Condensate Loss)	5
5	Drinking and domestic use	Plant	27	5.0 (EL)	22
		Colony	35	7(EL)	28
6	Plantation		23	23 (used)	0
	Total (A)		**2470**	**2020**	**450**
PROPOSED UNITS (AT EXPANSION)					
7	Pellet Plant		545	410 (PL)	135
8	DRI Plant		900	881 (EL)	19
9	SMS Induction Furnace based		1364	1023 (PL)	341
10	Rolling Mills Rebar cum Wire Rod Mill		1000	750 (PL)	250
11	DI Pipe Plant		758	568 (PL)	190
12	Oxygen Plant		45	35 (PL)	10
13	Power Plant (AFBC)	Cooling Water	1745	1393 (EL)	352
		DM Plant Regen	118	0	118
		Boiler makeup	50	42 (Condensate Loss)	8
14	Power Plant (WHRB)	Cooling Water	817	655 (EL)	162
		DM Plant Regen	58	0	58
		Boiler makeup	25	19 (Condensate Loss	6
15	Ferro Alloy Plant		141	106(PL)	35
16	Coal Washery		20	18	2
17	Sinter Plant		400	400 (PL)	0
18	Blast Furnace		1287	1189(PL)	98

19	Portland Slag Cement Plant		375	375 (PL)	0
20	Drinking and domestic use	Plant	94.0	20 (consumed)	74
		Colony	25	5 (consumed)	20
		Total (B)	**9767**	**7889**	**1878**
		Grand Total (A+B)	**12237**	**9909**	**2328**

SEGGREGATION OF EFFLUENT STREAMS BASED ON CHARACTERISTICS

	UNIT	**Type of effluent**	**Qty of Waste Water M^3/day**	**Characteristics**
Process Contaminated effluent				
I	Blast Furnace	Gas cleaning plant Effluent (with heat dissolved gases and particulates)	98	1. Total Dissolved Solids -346 - 500 mg/l 2. Total Suspended Solids: 1000 - 10500 mg/l 3. Dissolved Solids:80 - 118 mg/l as CaCO3 4. Total Hardness: 230 mg/l as CaCO3 5. Total Alkalinty:380 mg/l as CaCO3 6. Chlorides:210 - 250 mg/l 7. pH: 7.3 - 8.2
Non process blowdown streams from water re-circulation				
II	DRI Plant	Cooling Water/ Cooling blowdown	17	pH : 7.0 – 7.5 TDS :1000 mg/l
	SMS- Induction Furnace based		159	
	Pellet Plant		135	
	DRI Plant		19	
	SMS Induction Furnace based		341	
	Oxygen Plant		10	
	Power Plant (24 MW WHRB)		157	
	Power Plant (50 MW AFBC)		352	
	Power Plant (25 MW WHRB)		162	
	Ferro Alloy Plant		35	
	Power Plant (24 MW WHRB)	Boiler blowdown	5	pH : 9.5 – 10.5 TDS : 1000 mg/l
	Power Plant (50 MW AFBC)		8	
	Power Plant (25 MW WHRB)		6	
Oil contaminated effluents				
III	Rolling Mills Rebar cum Wire Rod Mill	Cooling water	250	PH: 60.-9.0 Suspended soilids (mg/l) :100 Oil and grease (mg/l): 10
	DI Pipe Plant		190	
Coal Contaminated effluent				
IV	Coal Washery	Coal particles laden	8	1. pH 5.5—9.0 2.Total suspended solids 100 mg/l 3. Oil & Grease 10 mg/l 4. B.O.D (3 days 27oC) 30 mg/l 5. COD 250 mg/l
	Coal Washery (exp)		2	

	UNIT	Type of effluent		Qty of Waste Water M^3/day	Characteristics
					6. Phenolics 1.0 mg/l
Acidic/Alkaline Streams					
V	Power Plant (24 MW WHRB)	DM Plant Regen Regen backwash		54	pH : 4 – 10 TDS : 5000 – 6000 mg/l
	Power Plant (50 MW AFBC)			118	
	Power Plant (25 MW WHRB)			58	
Domestic – sullage and sewage waste water					
VI	Drinking and domestic use	Plant	Domestic wastewater	22	pH : 7.0 – 8.5 BOD : 200 – 250 mg/l COD : 300 – 400 mg/l TDS : 800 – 900 mg/l
		Colony		28	
	Drinking and domestic use	Plant		74	
		Colony		20	
		Total wastewater		2328	

SEGGREGATED EFFLUENTS, TREATMENT AND UTILISATION

TYPE	Segregated effluent		Quantity Of effluent	Treatment	Utilisation of treated wastewater
I	Process Contaminated effluent		98	GCP, clarifier, thickener and setting tank	Slag Quenching and to slag granulation plant
II	Non process blowdown streams from water re-circulation	Cooling water blowdown	1387	Equalisation and side stream pressure filter	• 50 for Dust Suppression • 1356 for Slag Quenching and to slag granulation plant
		Boiler Blowdown	19	Settling tank followed by equalisation	
III	Oil contaminated effluents		440	Settling tanks fitted with oil skimmers and grease trap	Slag Quenching and to slag granulation plant
IV	Coal Contaminated effluent		10	Thickener	Coal particles – disposed to DRI kiln
V	Acidic/Alkaline Streams		230	Neutralisation and dilution with cooling blowdown water followed by side stream pressure filter	Slag Quenching and to slag granulation plant
VI	Domestic – sullage and sewage waste water		144	Sewage Treatment Plant SBR technology based	Plantation/afforestation
	Total		**2328**		

TREATED EFFLUENT USAGE

Total treated wastewater available	UTILISATION AREAS AND JUSTIFICATION
2328 m^3/day	❖ **50 m^3/day** – Dust suppression at raw material handling areas – area of raw material storage – 4.6 Ha (@1.2 lit/m^2/day) = 55m^3) (4.6*10000*1.2)
	❖ **2134 m^3/day** - Slag Quenching Molten Blast furnace slag is rapidly cooled with water as the slag is tapped from the furnace. Resulting product is then pumped to and dewatered within the granulation plant. While processing the granulated slag, water is recovered and reuse.
	❖ **100 m^3/day** – Treated Sewage will be used for plantation Plantation already developed – 57100 Trees (there is no water requirement for these trees) Proposed plantation – 30000 Trees at the rate of 10000 Trees /year for three years

Total treated wastewater available	UTILISATION AREAS AND JUSTIFICATION
	Water required per year for afforestation – 100 m^3/day @10 lit/tree =10 lit /day X10000 saplings = 100000 lit/day = 100 m^3/day. Treated wastewater available is 144 m^3/day. Further the fresh water of 23 m^3/day which is presently used is also available for proposed afforestation.

Water balance diagram has been submitted and ISL commits to commission ETP for the WHRB power plant by October, 2022. An undertaking towards the same is submitted.

3. **Point 3: Project Proponent to consider adopting nearby villages for socio-economic development and shall submit an affidavit with the name of the villages which will be adopted.**

Submission: The Company will adopt 4 Nos of villages namely Mohuapali, Kotmar, Siarpali and Karichchapar villages located within the 5 km radius of the plant and will develop these villages in to model villages with a budget of Rs 25 Lakhs/annum for each village for next five years. An affidavit dated 12.08.2022 towards the same is submitted.

DETAILS OF NERAEST VILLAGES

S.No	Village Name	Distence (km)	Direction	Population
1	Mohuapali	1.78	S	2299
2	Kotmar	0.60	N	860
3	Siarpali	0.98	WSW	545
4	Karichchapar	1.06	ENE	422

4. **Point 4: The Kharkhari River is very near i.e. 710 m from the project site. PP needs to submit the details of mitigation measures in this regard**.

Submission: Sapnal Nala (Kharkhari River) is located at a distance of about 710m in the north eastern side of the plant site. The MSL of the Kharkhari River is 214m, the MSL of Plant area ranges between 224 to 234m. The slope of the plant is towards S direction. whereas the Kharkhari River is located on the NE & Eastern direction. A thick green belt will be provided along with the boundary facing towards Kharkhari River (Sapnal Nala). The entire plant activities are mainly covered in 103.65 Ha area which is provided with a compound wall. No water from plant activity area drains beyond the compound wall into the out side. The Mauhaplli protected forest located at adjacent to the plant and acts as a natural desiltation media for runoff.

The following measures are proposed to protect the Sapnal Nala:

- Plant activity area is developed with full-fledged storm water network system.

- The catchment of the rainwater and water collected from the various areas is routed to rainwater harvesting pond provided in the plant with an area of 2.0 Ha. located at north eastern direction and the overflow of this pond drains in to sapnal nala ultimately.
- The storm water collected is routed through the storm water network and is routed to pond for storage. No water discharge to out side the project area.
- ISL has developed extensive greenbelt covering 33 % of the total plot area which is acting as erosion control and conservation of soil It is proposed to take up addition plantation of 28400 trees in the greenbelt area and landscaping of open areas which will further control the silt being carried in the runoff.
- Waste water generated from the plant will be treated in Effluent treatment plant (ETP) and after ensuring compliance with the SPCB norms, the treated effluent will be utilised for dust suppression and for greenbelt development. Zero Liquid discharge will be maintained in the plant and no effluent will be discharged outside the plant premises.

5. **Point – 5: EAC also noted that the process of procurement of CAAQMS is under process and PP has deposited amount Rs. 33,57,500/ Lakhs. PP assured that installation and commissioning shall be done by 31.07.2022. In this context, PP needs to be submit the compliance on this subject**.

   Submission: ISL has purchased the equipment from Nevco and installed CAAQ near Administrative office on 01.08.2022 and connected to CPCB Industrial AQMS Portal. Photograph and service report is enclosed.

6. **Point – 6: The detailed Action Plan for the non-compliances of the EC conditions shall be submitted for further deliberations of the EAC.**

   Submission: EC condition wise compliance with RO remarks at various stages and compliance status as on 05.08.2022 is submitted.

7. **Point – 7: Action plan on the issues raised during PH needs to be revised and the important activities has to be shifted in Year 1 as per MoEF&CC O.M. dated 30/09/2020**.

   Submission: Action Plan on the issues raised during Public Hearing with budget and timelines with important activities will be completed in first year, and the revised details are incorporated at para 12.8.14 above.

8. **Point – 8: Action plan for utilization of slag needs to be submitted**.

   Submission: Slag generation areas from the plant and its utilisation considering the expansion is given below:

SLAG GENERATION AND UTILISATION

Unit		Slag generation (T/T of product)	Production capacity , TPA	Total slag generation from the plant after expansion, TPA
Blast furnace		0.350	300000	105000
Steel melting shop	Existing Plant	0.020	140000	2800
	Proposed plant		300000	6000
Ferro Alloy Plant		0.850	30000	25500
DI Pipe Unit		0.085	20000	1700
Total Slag				**141000**
Proposed Cement Grinding unit capacity (Designed for GGBS, PPC, PSC and CC production)				**500000**
The Slag generated from the plant is totally consumed in Cement Grinding unit for cement production				

9. **Point – 9: The PP has to furnish details of respirable dust for coal dust exposures - concentrations measured in coal handling areas suing personal/area air samplers. Report has to be furnished**.

Submission: The Ambient Air Quality (AAQ) status has been monitored at the Coal Washery Area for PM10, PM2.5, SO2, NO2 and CO. Pre-calibrated Respirable dust & Fine dust samplers have been used for monitoring of the Ambient Air Quality. Methodologies adopted for sampling and analysis were, as per the approved methods of Central Pollution Control Board (CPCB).

Similarly the Personal Dust Sampling studies were carriedout at two locations as per the Metalliferrous Mines Regulation (MMR), 124 of 1961, under Mines Act, 1952. The following instrument was used for carrying out personal sampling studies.

Summary of the Personal sample quality is given in Table

RESULTS OF PERSONAL SAMPLING STUDIES
(By using Personal dust sampler, CIP10 ARELCO, France.)

S.No	Date of sampling	Location	Name of the Person	Dust Concentration [mg/m^3]	Threshold Limit [mg/m^3]
1	14/08/2022	Near Coal Washery	Narayan Singh	1.145	3.00
2	14/08/2022	Coal storage area	Kishu lal sahu	1.263	3.00

Free silica analysis:

The two samples were analyzed for free silica content. The analysis report indicates the percentages of free silica in the samples are in traces (below detection limit)

Results of Free Silica Analysis

Sample No.	Location	**% Of free silica**
1	Near Coal Washery	Not Detected
2	Coal storage area	Not Detected

Instrument Used: Personal dust sampler- Personal dust sampler Sidekick- 51EX

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

Submission: B S Chandramurthy, EIA coordinator [Consultant: B. S. Envi-Tech Pvt. Ltd], had visited the site of M/s. Ind Synergy Ltd, Raigarh, Chhattishgarh on 13.08.2022 & 14.08.2022. He discussed about the mitigation mesures and EC Compliance conditions with plant personnel. The site visit photographs are submitted.

The following measures were proposed for the Plant during inspection on 13th and 14th August 2022.

- Housekeeping to be improved further.
- Coal is spilling out of storage area. The same to be rearranged.
- Saplings received from Forest department, may started to be planted immediately.
- Occupational health Centre be strengthened
- Link the CAAQ results to CPCB and MPPCB servers.
- Till the ETP is established, the waste water may be disposed in to DRI units
- Mechanical sweeping machine to reduce the fugitive dust emission may be employed.
- Carry out water audit, to identify places where it could be conserved.
- Variable frequency drives may be introduced for energy conservation,
- Wheel washer arrangement with a filter and recirculation
- Analytical laboratory for occasional testing and analysis of Environmental parameters at random

12.8.23 Based on the above submission, the proposal is reconsidered during the 12th meeting of the EAC for Industry-I sector held on 1-3rd August, 2022. The deliberations and recommendations of the EAC are as follows:

Deliberations by the Committee

12.8.24 The Committee noted the following:

1. Instant proposal is for expansion of Integrated Mini Steel Plant - Sponge Iron Plant (DRI Plant) from 3,00,000 to 6,30,000 TPA, Power Plant of WHRB from 24 MW to 49 MW & Installation of 50 MW CFBC Power Plant, Steel Billet MS Steel billet Alloy / Stainless steel (SMS) from 1,40,000 to 4,40,000 TPA, Coal Washery from 7,20,000 to 9,00,000 TPA, Cold Pigs 3,00,000 TPA, Sinter Plant -4,40,000 TPA, Pellet Plant - 6,00,000 TPA, Rolling Mills (Rebar cum Wire Rod Mill) - 5,00,000 TPA, Ductile Pipe Plant - 2,00,000 TPA, Oxygen Plant – 70 TPD, Ferro Alloy Plant - 30,000 TPA and Cement Grinding unit (for PPC, PSC and CC production) - 5,00,000 TPA.
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. Total land area for the project: 103.65 Hectares. The vacant land of 24.74 Ha will be used for the proposed expansion which is within plant premises. No additional land will be acquired.
6. Sapnal Nala (Kharkhari River) is located at a distance of about 710m in the north eastern side of the plant site. PP has submitted the mitigation measures to protect the Sapnal Nala.
7. Kukurda RF is at a distance of 1.2 km from the project site.
8. The total water requirement after expansion will be 12,237 m^3/day which will be obtained from Sapnai river.
9. The Company vide affidavit dated 12.08.2022 committed to adopt 4 Nos of villages namely Mohuapali, Kotmar, Siarpali and Karichchapar located within the 5 km radius of the plant and will develop these villages in to model villages with a budget of Rs 25 Lakhs/annum for each village for next five years.
10. Existing green belt has been developed in 34.2 Ha which is about 33%. M/s ISL has already planted around 80000 Nos. of trees. Thick green belt of width of 10m along the boundary has been developed. Species are planted in consultation with the local DFO. ISL will increase the density of plantation from 1000 tree/ha to 2500 tree /ha by taking up gap plantation. Gap plantation will be completed within 3 years.
11. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.

12. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the green belt development shall be completed within one year.
13. The Committee also deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
14. The Committee deliberated upon the certified compliance report of IRO MoEF&CC and found it satisfactory.
15. The EAC also deliberated on the ADS information submitted by the proponent and found it satisfactory.
16. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
17. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

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

A. Specific conditions

i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
iii. Sapnal Nala (Kharkhari River) is located at a distance of about 710m in the north eastern side of the plant site. Mitigation measures to protect the Sapnal Nala shall be implemented as submitted by PP.
iv. Total water requirement of 12,237 m^3/day after expansion shall be obtained from

Sapnai river. No additional GW abstraction is permitted.

v. Rejects from coal washery shall only be used either in the captive power plant (or) in the Thermal Power Plants meeting emission standards.

vi. Solid waste utilization
   a. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
   b. PP shall recycle/reuse 100 % solid waste generated in the plant.
   c. Used refractories shall be recycled as far as possible.

vii. Secondary fume extraction system shall be installed on converters of Steel Melting Shop.

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

ix. Blast Furnaces shall be equipped with Top Recovery Turbine (capacity more than 450 m^3), dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.

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

xi. 85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil or Mixed BF/CO gas/Producer gas. 100 % hot charging to ensure energy conservation.

xii. Dust emission from Steel Plant stacks shall be up to 30 mg/Nm^3.

xiii. Three tier Green Belt shall be developed in a time frame of one year in atleast 33% of project area with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. ISL shall increase the density of plantation from 1000 tree/ha to 2500 tree /ha by taking up gap plantation. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

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

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

xvi. Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.

xvii. The proposed project shall be designed as "Zero Liquid Discharge" Plant. No waste water will be discharged outside the plant boundary.

xviii. As committed the project proponent shall adopt 4 Nos of villages namely Mohuapali, Kotmar, Siarpali and Karichchapar and implement a robust action plan to develop the villages in model villages.

xix. Dioxin and Furan monitoring shall be carried out once in six months at cement kiln stack.

xx. DeSOx system shall be provided dry type. NOx level shall be maintained below 600 mg/Nm^3 by using best available technology.

xxi. Petcoke dosing shall be controlled automatically to control SO_2 emission from chimney within the prescribed limits.

xxii. Air cooled condensers shall be used in the power plant.

xxiii. A proper action plan must be implemented to dispose of the electronic waste generated.

xxiv. The Unit is existing and using quartzite, coal and coke. Therefore, the industry is recommended to measure silica and coal dust exposures using personal and area air samplers in process plants and to be compared with Permissible exposure limits as per Indian Factories Act, 1948. Report to be submitted to the IRO, MoEFCC.

xxv. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

xxvi. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

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

B. General conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R

277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

iii. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.

iv. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

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

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

vii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.

viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.

ix. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

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

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

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

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

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

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.
ii. Project proponent shall submit a study report on 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. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

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

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

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

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

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

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Modification of TOR Proposal

Agenda No. 12.9

12.9 Expansion through addition of AFBC/CFBC and WHRB based Power Plant of 15 MW in the existing 4x100 TPD Sponge Iron Plant by M/S ANINDITA STEELS LIMITED, located at Village- Senegarha. District- Hazaribagh, Jharkhand- Consideration of Modification of TOR.

[Proposal No. IA/JH/IND/288648/2022] File No. J-11011/178/2018-IA.II(I)]

12.9.1 M/s Anindita Steels Limited has made an application online vide proposal no. IA/JH/IND/288648/2022 dated 13.08.2022 along with Form 5 and sought for extension of validity of Terms of Reference (ToR) accorded by Ministry vide letter no. IA-J-11011/178/2018-IA-II(I) dated 16.08.2018.

Details submitted by Project proponent

12.9.2 M/s Anindita Steels Limited had earlier applied for grant of ToR vide proposal no. IA/JH/IND/74838/2018 dated 11.07.2018 for proposed addition of AFBC/CFBC and WHRB based Power Plant of 15 MW in the existing 4x100 TPD Sponge Iron Plant located at Village Senegarha. Rabodh Panchayats, Giddi Circle. Hazaribagh Zila Parishad, Hazaribagh District, Jharkhand. Accordingly, Terms of Reference was accorded by the Ministry vide letter no. IA-J-11011/178/2018-IA-II(I) dated 16.08.2018.

12.9.3 The instant proposal is for seeking extension of validity of Terms of Reference issued letter no. IA-J-11011/178/2018-IA-II(I) dated 16.08.2018 for a period of 6 months from the date of expiry of ToR validity.

12.9.4 **Reasons for delay:** Project Proponent reported that there is some gap in the submission of final EIA report to MoEF&CC and the same is expected to be completed within next three months.

12.9.5 Project Proponent has further reported that there is no changes in configuration & capacity of units in granted ToR.

12.9.6 Public Hearing has been conducted on 18.10.2021 and the proceedings has been submitted by the project proponent.

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

Deliberation by the Committee

12.9.8 The Committee noted the following:

i. Terms of Reference for proposed addition of AFBC/CFBC and WHRB based Power Plant of 15 MW in the existing 4x100 TPD Sponge Iron Plant located at Village Senegarha.

Rabodh Panchayats, Giddi Circle. Hazaribagh Zila Parishad, Hazaribagh District, Jharkhand was accorded by the Ministry vide letter no. IA-J-11011/178/2018-IA-II(I) dated 16.08.2018.

ii. The instant proposal is for seeking extension of validity of Terms of Reference issued letter no. IA-J-11011/178/2018-IA-II(I) dated 16.08.2018 due to some gap in the submission of final EIA report to MoEF&CC and the same is expected to be completed within next three months.

iii. The EAC observed that there is no change in the configuration & capacity of units in granted ToR.

iv. The EAC noted that Public Hearing has been completed on 18.10.2021.

v. The EAC further noted that validity of ToR dated 16.08.2018 is for a period up to 15.08.2023 in accordance to the provisions of Ministry's Notification S.O. 751 (E) dated 17/02/2020 and Ministry Notification no. S.O. 221(E) dated 18/01/2021.

Recommendations of the Committee

12.9.9 After deliberations, the Committee **recommended** to extend the validity of ToR issued vide No. IA-J-11011/178/2018-IA-II(I) dated 16.08.2018 up to 15.08.2023 in accordance to the provisions of Ministry's Notification S.O. 751 (E) dated 17/02/2020 and Ministry Notification no. S.O. 221(E) dated 18/01/2021 subject to stipulation of conditions stipulated in the ToR dated 16.08.2018. All the other terms and conditions stipulated in the Terms of Reference issued vide No. IA-J-11011/178/2018-IA-II(I) dated 16.08.2018 shall remain the same.

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Re-Consideration of Environmental Clearance Proposals

Agenda No. 12.10

12.10 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.

12.10.1 M/s. Nilkanth Ferro Limited 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.

12.10.2 The instant EC proposal was recommended by the EAC in its 4th meeting held during 27-28th April, 2022. The Minutes were uploaded on Parivesh Portal on 06.05.2022. Further, PP vide e-mail dated 12.05.2022 requested for correction/amendment in various specific conditions imposed by EAC. w.r.t. project. During 5th meeting of the EAC for Industry-I sector held on 12-

13th May, 2022, the EAC, after detailed deliberations, noted that the request of PP may be accepted and recommended for the incorporation of the corrections/modifications in the minutes of the meeting.

12.10.3 Accordingly, the file was processed and submitted for approval of the Competent Authority. The Ministry examined the proposal and competent authority decided that since project proponent did claim the progress made under previous EC for carrying out different project activities, submission of certified compliance report (CCR) of previous EC is required. Therefore, ADS was raised on PARIVESH on 06.06.2022 along with an issuance of letter vide F.No. J-11011/10/2011-IA. II(I) dated 06.06.2022 to IRO Kolkata requesting for requisite CCR for further action in the matter.

12.10.4 Based on the above, the project proponent vide letter Ref: NFL/2022-23/466 dated 26.07.2022 submitted reply to the ADS stating that Integrated Regional Office, Kolkata monitored the site on 08.07.2022 and given its report dated 18.07.2022. The salient points recorded in the CCR of IRO MoEFCC are as follows:

- During monitoring it was observed that boundary wall has been constructed.
- Land Development has been undertaken with 10% of the land development remaining.
- Greenbelt has been developed all along the periphery of the boundary wall.
- 100% of the 305 km power line & poles have been drawn from DVC to the plant.
- Stainless steel sections were seen lying on the ground.
- Shed has also been constructed.
- **It was observed that part of the sinter plant has been installed. Though in the EC dated 2012 there is no provision of sinter plant, PA's have installed part of the sinter plant, which is in violation of the condition stipulate in the EC dated 2012.**
- Watch tower has been constructed.
- Permission for water from tube well has been received from SWID, Bankura.
- As the project has not been set up, EC stipulated conditions for the EC dated 2012 could not be verified.

12.10.5 **Summary of PP's reply to ADS:**

- Any ferro alloy plant wherein the bag filters fines have to be reused, it is not possible without any agglomeration process. The fines cannot be fed directly into Submerged Arc Furnace, without adversely affecting the process. In the EIA prepared in May 2012 for the environmental clearance dated 26.09.2012, have written that bag filter dust will be "recycled in the process". Recycling of bag filter dust is possible only after agglomeration, and not as fines. This can be easily verified from existing industry practices. Thus, the agglomeration process is an intermediate step for reusing of the bag filter dust, which would otherwise go waste. This shed (a part of the 700 sq.m. already constructed area) was constructed to house the unit for the agglomeration of the bag filter fines for reuse and stalled after constructing a platform with conduits. No agglomeration unit is installed. Hence, there is no violation.
- In new TOR, have separately mentioned a 30 TPD sinter plant as PP intends to recover Mn metal from Si-Mn slag after jigging and mix it with the bag filter fines, for reuse. In EC dated 2012, there was no proposal to recover metal from slag and reuse it while in the current

proposal PP has added it. The agglomeration process is similar for recovered metal. Thus, the bag filter agglomeration system will be scaled up in the existing shed itself to cater to the sintering requirement of the additional Mn recovered from waste Si-Mn slag. Thus, there is no violation at our end.

Deliberation by the Committee

12.10.6 The Committee noted the following:

i. The EAC had recorded that PP had earlier obtained EC in 26/09/2012 and the validity of the EC lapsed on 26/09/2019 and was not extended. 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.

ii. Instant proposal is case of EC regularisation in line with the previous EC 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.

iii. In pursuance to Ministry's O.M. vide No. IA3-22/10/2022-IA.III [E 177258] dated 08.06.2022, proposals involving expansion of existing EC requires certified compliance report. In this case, the EAC is of the view that instant proposal does not involve any expansion so the CCR was not required at the time of appraisal of EC.

iv. However, the Ministry examined the proposal and decided that since project proponent did claim the progress made under previous EC for carrying out different project activities, submission of certified compliance report (CCR) of previous EC is required.

v. Integrated Regional Office, Kolkata monitored the site on 08.07.2022 and given its report dated 18.07.2022. The Ministry noted that as per IRO report, PAs have installed part of the sinter plant, which is in violation of the condition stipulated in the EC of 2012. The Ministry decided that the IRO report along with response of PP be referred to EAC for deliberating the CCR and the violation aspect for further action.

vi. The EAC examined the certified compliance report of IRO dated 18.07.2022 as detailed at para 12.10.4 above and inter-alia, noted that IRO has reported that part of the sinter plant has been installed. Though in the EC dated 2012 there is no provision of sinter plant, PA's have installed part of the sinter plant, which is in violation of the condition stipulate in the EC dated 2012.

vii. **Also, on perusal of kml file of the project site at different time frame on Google Earth, it was observed that the construction of the shed has been undertaken during 2020 i.e. after the expiry of the EC validity. The same was confirmed with the project**

proponent and submitted that PP has undertaken the shed construction activity during 2020.

viii. The EAC further deliberated that as per the submission of the project proponent, the construction activity carried out is highly insignificant involving a small part of the project cost.

Recommendations of the Committee

12.10.7 In view of the foregoing CCR Report submitted by the IRO MoEFCC and after detailed deliberations, **the Committee is of the view that this is a violation case involving construction of sinter plant after the expiry of the EC dated 26.09.2012.** Therefore, project proponent is directed to further apply under the violation category as per the provisions of SOP dated 07.07.2022 and EIA Notification, 2006 and amendments thereof. The EAC also recommended that the SPCB to take necessary credible actions (filling of court case etc.) against the PP as per provision of SOP dated 07.07.2021.

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Agenda No. 12.11

12.11 Expansion of Iron Ore Pelletizing plant (0.85 MTPA to 1.7 MTPA) by addition of Iron Ore Beneficiation Plant (3.0 MTPA), Pig Iron Blast Furnace (0.60 MTPA), DRI Plant (0.36 MTPA), Sinter Plant (0.60 MTPA), SMS/Arc Furnace (ZPF) (0.72 MTPA), Rolling/Hot Strip Mill (0.7 MTPA) & CPP (WHRB-35 MW & AFBC-35 MW) by M/s. Ardent Steel Limited located at Village Phuljhar, Block Banspal, Tehsil Telkoi and District Keonjhar, Odisha – Consideration of Environmental Clearance.

[Proposal No. IA/OR/IND/124925/2019; File No. IAJ-11011/112/2013-IA-II(I)]
[Consultant: Centre for Envotech & Management Consultancy Pvt.; Valid upto 18.03.2024]

12.11.1 M/s. Ardent Steel Limited has made an online application vide proposal no. IA/OR/IND/124925/2019 dated 28.06.2022 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), 2(b) Mineral Beneficiation and 1(d) Thermal Power Plantsunder Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

12.11.2 Name of the EIA consultant: M/s Centre for Envotech & Management Consultancy Pvt. [Sl. No. 99, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2124/RA 0243; valid upto 18.03.2024, Rev. 24, July 05, 2022].

Details submitted by Project proponent

12.11.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	Validity of ToR
14.05.2018	32nd Meeting of EAC held to 11th-13th June, 2018	Terms of Reference	27.06.2018	26.06.2023
27.10.2021	48th Meeting of EAC held to 11th-12th November, 2021	Amendment of ToR	29.11.2021	

12.11.4 The project of M/s Ardent Steel Limited located in Village- Phuljhar, Tehsil- Banspal, District- Keonjhar, Odisha State is for Expansion of Iron Ore Pelletizing plant (0.85 MTPA to 1.7 MTPA) along with additional installation of Iron Ore Beneficiation (3.0 MTPA), DRI Plant (0.36 MTPA), Pig Iron Blast Furnace (0.6 MTPA), Sinter Plant (0.60 MTPA), SMS (0.72 MTPA), Rolling Mills (0.7 MTPA) & Captive Power Plant- 70 MW (WHRB-35 MW & AFBC-35 MW).

12.11.5 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>116.282 ha [Private: 18.334 ha; Govt: 61.166 ha; Other Land: 36.781 ha]

Land Use:
<table>
<tr><th>S. No.</th><th>Particulars</th><th>Area (Ha)</th><th>%</th></tr>
<tr><td>1</td><td>Main Plant</td><td>52.487</td><td>45.13</td></tr>
<tr><td>2</td><td>Green Belt</td><td>39.171</td><td>33.68</td></tr>
<tr><td>3</td><td>Raw Material Storage</td><td>5.075</td><td>4.36</td></tr>
<tr><td>4</td><td>Roads, Others & Open Area</td><td>19.549</td><td>16.83</td></tr>
<tr><td colspan="2">TOTAL PROJECT AREA</td><td>116.282</td><td>100.0</td></tr>
</table></td><td></td></tr>
<tr><td>ii</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Out of the 116.282 hectare of land, 36.781 hectare of land is already in possession of M/s Ardent Steel Limited & for rest of land (79.501 hectare) is under process. In this connection the PP has submitted that they have already deposited desired amount for alienation of the land.</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>Keonjhar</td><td>28.0 km</td><td>S</td></tr>
</table>
Ardent Steel Ltd, is going to adopt both "The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFTLARR-2013) by Govt. of India" and Odisha Right to Fair Compensation and</td><td>Status of R&R: Yet to Start</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>Transparency in Land Acquisition, Rehabilitation and Resettlement Act,2016 (ORFTLARR-2013) by Govt. of Odisha, 2016 in order to ensure their improvement in their post acquisition socio-economic status in consultation with direct and indirect stakeholders and other statutory different govt. line department during the time of land acquisition.</td><td></td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site</td><td>
<table>
<tr><td>Name</td><td>Latitude</td><td>Longitude</td></tr>
<tr><td colspan="3">Existing Plant Boundary</td></tr>
<tr><td>Point A</td><td>21°44'16.61"N</td><td>85°25'36.56"E</td></tr>
<tr><td>Point B</td><td>21°44'15.94"N</td><td>85°25'40.96"E</td></tr>
<tr><td>Point C</td><td>21°44'16.46"N</td><td>85°25'43.93"E</td></tr>
<tr><td>Point D</td><td>21°44'13.50"N</td><td>85°25'48.34"E</td></tr>
<tr><td>Point E</td><td>21°44'10.91"N</td><td>85°25'55.11"E</td></tr>
<tr><td>Point F</td><td>21°44'7.56"N</td><td>85°26'0.81"E</td></tr>
<tr><td>Point G</td><td>21°44'4.47"N</td><td>85°26'6.28"E</td></tr>
<tr><td>Point H</td><td>21°44'3.72"N</td><td>85°26'12.13"E</td></tr>
<tr><td>Point I</td><td>21°44'7.29"N</td><td>85°26'16.95"E</td></tr>
<tr><td>Point J</td><td>21°44'18.60"N</td><td>85°26'18.12"E</td></tr>
<tr><td>Point K</td><td>21°44'20.52"N</td><td>85°26'8.07"E</td></tr>
<tr><td>Point L</td><td>21°44'16.22"N</td><td>85°25'53.70"E</td></tr>
<tr><td>Point M</td><td>21°44'20.85"N</td><td>85°25'51.05"E</td></tr>
<tr><td>Point N</td><td>21°44'22.83"N</td><td>85°25'40.20"E</td></tr>
<tr><td>Point O</td><td>21°44'21.25"N</td><td>85°25'37.00"E</td></tr>
<tr><td colspan="3">Proposed Plant Boundary</td></tr>
<tr><td>Point A</td><td>21°44'3.09"N</td><td>85°26'5.82"E</td></tr>
<tr><td>Point B</td><td>21°43'43.35"N</td><td>85°26'16.06"E</td></tr>
<tr><td>Point C</td><td>21°43'45.92"N</td><td>85°26'33.75"E</td></tr>
<tr><td>Point D</td><td>21°43'31.94"N</td><td>85°26'28.22"E</td></tr>
<tr><td>Point E</td><td>21°43'36.85"N</td><td>85°26'37.23"E</td></tr>
<tr><td>Point F</td><td>21°44'4.43"N</td><td>85°26'39.26"E</td></tr>
<tr><td>Point G</td><td>21°44'4.88"N</td><td>85°26'17.53"E</td></tr>
</table>
</td><td>--</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>540 m AMSL.</td><td>--</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No forest land involved.</td><td>The project proponent has submitted in Form 2 on PARIVESH that 3500 trees are required to be felled.</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></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:
01 Nos. artificial ponds (rain water harvesting pond).

Study area:
<table>
<tr><th>Water body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Baitarani River</td><td>4.3</td><td>W</td></tr>
<tr><td>Jagdala River</td><td>2.5</td><td>E</td></tr>
<tr><td>Malda River</td><td>6.2</td><td>W</td></tr>
<tr><td>Bamni Nalla</td><td>1.5</td><td>W</td></tr>
<tr><td>Jagadhala Nalla</td><td>1.7</td><td>E</td></tr>
<tr><td>Patarpangi Nalla</td><td>7.5</td><td>S</td></tr>
<tr><td>Bragarhia Nalla</td><td>8.5</td><td>NE</td></tr>
<tr><td>Ghagra Nalla</td><td>8.9</td><td>NW</td></tr>
<tr><td>Panisuan Nalla</td><td>9.6</td><td>W</td></tr>
</table></td><td>--</td></tr>
<tr><td>viii.</td><td>Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area</td><td>Nil.

One Reserve Forest and Four protected forest is present within 10 km area of the project.
9. Nayagarh RF – 4.4 km, NE
10. Amuni PF- 5.6 km, SE
11. Gandhamardan PF- 7.2 km, SE
12. Raiguda PF- 6.9 km, SW
13. Jagar PF- 9.7 km, S</td><td></td></tr>
</table>

12.11.6 The existing project was initially accorded environmental clearance vide lr.no. J-11011/12/2013-IA-II(I), dated 29.03.2016 for Iron Ore Pelletizing Plant (0.6 MTPA). Thereafter, project proponent obtained ToR for expansion of existing Pellet Plant to an Integrated Steel Plant of capacity 1.2 MTPA on 27.06.2018. Meanwhile, PP made application for expansion of Pellet Plant from 0.6 MTPA to 0.69 MTPA under para 7(ii) of EIA Notification 2006 vide application no. IA/OR/IND/124925/2019 dated 15.12.2019; and accordingly, EC was granted on 13.02.2020 for enhancement in production capacity of existing pelletizing plant from 6,00,000 TPA to 6,90,000 TPA through process optimisation. Thereafter, Consent to Establish for expansion from 0.69 MTPA to 0.85 MTPA Pellet Plant was obtained vide letter no. 1164/IND-II-CTE6437, dated 29.01.2021 under "No Increase Pollution Load Certificate" vide Notification No. S.O. 3518(E), dated 23.11.2016 and amended notification vide S.O. 236(E), dated 16.01.2020. Consent to Operate for the existing unit [Iron Ore Pellet- 8,50,000 TPA, Producer Gas – 25,800 Nm^3/hr and Flux Grinding Unit – 5 Metric Tonnes / Hour] was accorded by Odisha State Pollution Control Board vide lr. No. 16141/IND-I-CON-6363 dated 22.10.2021. The validity of CTO is up to 31.03.2024.

12.11.7 Implementation status of the existing EC

Sl. No.	Facilities/Units	As per EC dated 29.03.2016 & 13.02.2020		Implementation Status as on July 2022	Production as per CTO
		Configuration	Capacity		
1	Iron Ore Pellet Plant	One Kiln of 0.69 MTPA	0.69 MTPA	Implemented	8,50,000 Metric Tonne/Annum

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

Sl. No.	Plant Equipment/ Facility	Existing facilities as per EC dated 29.03.2016 & 13.02.2020								Proposed Unit		Final (Existing + Proposed)		Remarks
		Total (A+B)		Implemented (A)		Unimplemented (B)		As per CTO*						
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	
1	Iron Ore Pellet Plant	One Kiln of 0.69 MTPA	0.69 MTPA	One Kiln of 0.69 MTPA	0.69 MTPA	--	--	One Kiln of 0.85 MTPA	0.85 MTPA	One Kiln of 0.85 MTPA	0.85 MTPA	One Kiln of 0.85 MTPA and One Kiln of 0.85 MTPA	1.7 MTPA	Pellet
2	Iron Ore Beneficiation Plant	--	--	--	--	--	--	--	--	3.0 MTPA	3.0 MTPA	3.0 MTPA	3.0 MTPA	
3	DRI Plant	--	--	--	--	--	--	--	--	2 x 600 TPD	0.36 MTPA	2 x 600 TPD	0.36 MTPA	
4	Pig Iron (Blast Furnace)	--	--	--	--	--	--	--	--	550 m^3	0.6 MTPA	550 m^3	0.6 MTPA	
5	Sinter Plant	--	--	--	--	--	--	--	--	60 m^2 x 1	0.6 MTPA	60 m^2 x 1	0.6 MTPA	
6	SMS/ Arc Furnace	--	--	--	--	--	--	--	--	1x75T (ZPF) & 1x75T (LRF)	0.72 MTPA	1x75T (ZPF) & 1x75T (LRF)	0.72 MTPA	
7	Rolling Mills	--	--	--	--	--	--	--	--	0.70 MTPA	0.70 MTPA	0.70 MTPA	0.70 MTPA	
8	Captive Power Plant (WHRB + AFBC)	--	--	--	--	--	--	--	--	WHRB 35 MW + AFBC 35 MW	70 MW	WHRB 35 MW + AFBC 35 MW	70 MW	

**Note: Consent to Establish for expansion from 0.69 MTPA to 0.85 MTPA Pellet Plant was obtained vide letter no. 1164/IND-II-CTE6437, dated 29.01.2021 under "No Increase Pollution Load Certificate" vide Notification No. S.O. 3518(E), dated 23.11.2016 and amended notification vide S.O. 236(E), dated 16.01.2020.*

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

Sl. No.	Raw Materials	Quantity Required per Annum (TPA)			Source	Distance from Site (km)	Mode of Transport
		Existing (As per EC)	Expansion (Additional)	Total			
1	Iron Ore Fines	9,52,000	20,48,000	30,00,000	Pvt./Govt. Mines	150	Rail/Road
2	Bentonite	4200	6,070	10,270	Local Mines	150	Rail/Road
3	Dolomite/ Lime Stone	8000	2,80,000	2,88,000	Dolomite from Chhattisgarh/Rajasthan/MP and Limestone from Import/Chhattisgarh/Rajasthan/MP	450	Rail/Road
4	Coke	24000	3,14,000	3,38,000	Imported Coke	250	Rail/Road
5	Coal	30000	8,05,640	8,35,640	MCL Cola Field	250	Rail/Road
6	LDO	6000	16,465	22,465	Local Market	230	Road
7	Calcinated Dolo	15912	15,912	15,912	Local Market	450	Road
8	Ferro Alloys	11271	11,271	11,271	Local Market	450	Rail/Road

12.11.10 Existing Water requirement (as per sanctioned EC) is 500 m^3/day. The water requirement for the proposed project is estimated as 12,830 m^3/day, water requirement will be obtained from Baitarani River and Permission of 6.35 cusec (15,535 KLD) has been approved in 16th Meeting of HLCA on 29.09.2015.

12.11.11 Existing power requirement of 4.8 MW is obtained from State grid. The power requirement for the proposed project is estimated as 56.0 MW. Total power 60.8 MW will be obtained from the captive power plant of 70 MW.

12.11.12 Baseline Environmental Studies:

Period	1st December 2020 to 28th February 2021
AAQ parameters at 8 Locations (min and max)	• $PM_{2.5}$ = 22.1 to 44.7 µg/m^3 • PM_{10} = 64.2 to 79.3 µg/m^3 • SO_2 = 4.2 to 9.6 µg/m^3 • NO_X= 9.6 to 16.4 µg/m^3 • CO = 0.12 to 0.93 mg/m^3
Incremental GLC level	• PM_{10} = 6.88 µg/m^3 (Level at 0.52 km in SE Direction) • SO_2 = 7.02 µg/m^3 (Level at 1.48 km in SE Direction) • NO_X = 7.05 µg/m^3 (Level at 0.52 km in SE Direction) • CO= 0.303 mg/m^3 (Level at 1.8 km at Rangamatia)

<table>
<tr><td>Ground water quality at 8 Locations</td><td>• pH: 7.06 to 7.23,
• Total Hardness: 118 to 160 mg/l,
• Chlorides: 30.1 to 38.1 mg/l,
• Fluoride:0.11 to 0.16 mg/l,
• Heavy metals (Mercury, Lead, Cadmium & Arsenic): BDL</td></tr>
<tr><td>Surface water quality at 8 Locations</td><td>• pH: 7.12 to 7.2,
• DO: 5.6 to 6.6 mg/l,
• BOD: 2.0 to 2.8 mg/l,
• COD: 11 to 35 mg/l</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>50.7 to 72.9 for the day time and 41.2 to 62.6 for the Night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>• Traffic study has been conducted on village road which is approximately 1.5 km from the plant site.
• Transportation of raw material, fuel & finished product will be done 70% by road.
• Existing PCU is 422 PCU/hr on village road and existing level of service (LOS) is:
<table>
<tr><td>Road</td><td>V (Volume in PCU/hr)</td><td>C (Capacity in PCU/day)</td><td>Existing (V/C Ratio</td><td>LOS</td></tr>
<tr><td>Village Road</td><td>422</td><td>15000</td><td>0.12</td><td>A</td></tr>
</table>
• PCU load after proposed project will be 422 (Existing) + 800 (Additional) PCU/hr and level of service (LOS) will be:
<table>
<tr><td>Road</td><td>V (Volume in PCU/day)</td><td>C (Capacity in PCU/day)</td><td>Existing (V/C Ratio</td><td>LOS</td></tr>
<tr><td>Village Road</td><td>1222</td><td>15000</td><td>0.34</td><td>B</td></tr>
</table>
* Note: Capacity as per IRC-106:1990 Guide line for capacity for roads.
Conclusion: The level of service will “B” after including additional traffic due to proposed project</td></tr>
<tr><td>Flora and fauna</td><td>There is 1 no. of Schedule - I species reported in study area, namely Elephant (Elephas maximus). Site Specific Wildlife Conservation Plan has been approved by PCCF(Wildlife) & Chief Wildlife Warden vide letter NO. 2708/CWLW-FDWC-MISC-0002-2022 dated 26.03.2022 with a budgetary provision of Rs. 134.606 Lakhs.</td></tr>
</table>

12.11.13 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 Transportation	Disposal
1.	Tailings	Iron Ore Beneficiation Plant	82,500 TPA	Road	Dumped in Waste dump yard. To be used for filling nearby empty iron ore mined.
2.	Pellet Plant Fines	Pellet Plant	61,200 TPA	Road	Recycled back to the system.
3.	Coal fines and Dolochar from DRI	DRI	2,16,000 TPA	Road	feed fuel to the FBC Boilers.
4.	Blast Furnace Slag	Blast Furnace	1,59,000 TPA	Road	slag will be granulated and sold to Cement Manufactures.
	Sludge / Flue Dust	Blast Furnace	2,22,000 TPA	Road	Reused in Pellet Plant.
5.	Dust generated from Sinter Plant	Sinter Plant	15,200 TPA	Road	used in Pellet Plant.
6.	Slag of Induction Furnace	Induction Furnace	2,22,000 TPA	Road	Steel melting slag will be crushed to coarse and passed through metallic separator for separation of metallic and non-metallic contents. Metallic contents will be recycled back in SMS / Sinter process and non-metallic will be utilized for back filling or reclamation of low lying area / land filling in nearby mines. Cut end, rejects will be recycled in SMS. Flue dust will be utilized in road construction and land filling in nearby mines.
	Flue dust of SMS	SMS	65,400 TPA	Road	Reused in Pellet Plant.
	Cut ends & Rejects of SMS	SMS	84,000 TPA	Road	Recycled back.

Sl. No.	Type of Waste	Source	Quantity Generated (TPA)	Mode of Transportation	Disposal
7.	Rolling Mill	Rolling Mill	27,300 TPA	Road	Mill Scale will be recycled in SMS /Sinter/ Pellet Plant.
8.	Fly Ash and Bottom Ash of CPP	CPP	2,49,120 TPA	Road	Fly ash will be used for fly ash brick manufacture and Bottom ash will be used as road base material.

12.11.14 Public Consultation:

Details of advertisement	The New Indian Express – 23.01.2019 Samaj – 23.01.2019
Date/Time of Public Hearing	28.02.2019
Venue	Play Ground at Banspal, Khata No. 173 (Rakhit), Plot No. 480, Kissam- Bastijogya, District- Keonjhar, Odisha
Presiding Officer	Additional District Magistrate
Major Issues Raised	1. Employment to Local People 2. Medical Facility 3. Supply of Drinking Water 4. Education

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

S. No	Major Activity		Year of Implementation			Total Expenditure (Rs. in Lacs)
			2019-20 (Rs. in Lacs)	2020-21 (Rs. in Lacs)	2021-22 (Rs. in Lacs)	
Based on Public Consultation/Hearing						
EDUCATION						
i	Setting up Library	Physical Nos. & Villages	1 No. each Gopabandhu Nodal High School, Phuljhar & UGME School, Kendughati	1 No. each High School, Raigoda & UGME School, Kasia	--	
		Budget in Lacs	4.0	4.0	--	8.0
ii	Setting of Play Zone	Physical Nos. & Villages	1 No. each Gopabandhu Nodal High School, Phuljhar & UGME School, Kendughati	1 No. each High School, Raigoda & UGME School, Kasia	--	
		Budget in Lacs	4	4	--	8.0

S. No	Major Activity		Year of Implementation			Total Expenditure (Rs. in Lacs)
			2019-20 (Rs. in Lacs)	2020-21 (Rs. in Lacs)	2021-22 (Rs. in Lacs)	
iii	Engagement of Teachers	Physical Nos. & Villages	3 Nos. in Gopabandhu Nodal High School, Phuljhar	2 Nos. in Gopabandhu Nodal High School, Phuljhar	1 No. in UGME School, Kendughati, 1 No. in Gopabandhu Nodal High School, Phuljhar, 2 Nos. each High School, Raigoda, 1 No. UGME School, Kasia	
		Budget in Lacs	3.6	2.4	6.0	12.0
iv	Providing Electricity, Internal Lighting & Road	Physical Nos. & Villages	Gopabandhu Nodal High School, Phuljhar	High School, Raigoda	--	
		Budget in Lacs	7.5	7.5	--	15.0
v	Running Nursery School by providing Rent	Physical Nos. & Villages	1 no. in Phuljhar	1 no. in Phuljhar	1 no. in Phuljhar	
		Budget in Lacs	1.5	1.5	1.5	4.5
vi	Computer Education by IT expert	Physical Nos. & Villages	Phuljhar	Kasia	Raigoda	
		Budget in Lacs	--	--	--	--
					Total (A)	**47.5**
HEALTH						
i	Construct of additional rooms in Phuljhar PHC	Physical Nos. & Villages	Phuljhar	--	--	
		Budget in Lacs	10.0	--	--	10.0
ii	Construction of 20 Beded Covid Hospital & its management	Physical Nos. & Villages	Plant Premises, Phuljhar	--	--	
		Budget in Lacs	6.0	--	--	6.0
iii	Engagement of Doctors	Physical Nos. & Villages	2 nos. PHC Phuljhar	2 nos. PHC Phuljhar	2 nos. PHC Phuljhar	
		Budget in Lacs	12.0	12.0	12.0	36.0
iv	Engage Ambulance & Management	Physical Nos. & Villages	1 no. PHC Phuljhar	1 no. PHC Phuljhar	1 no. PHC Phuljhar	

S. No	Major Activity		Year of Implementation			Total Expenditure (Rs. in Lacs)
			2019-20 (Rs. in Lacs)	2020-21 (Rs. in Lacs)	2021-22 (Rs. in Lacs)	
		Budget in Lacs	4.0	4.0	4.5	12.5
v	Health Camp	Physical Nos. & Villages	--	Phuljhar Village	Phuljhar Village	
		Budget in Lacs	--	0.5	0.5	1.0
					Total (B)	**65.5**
DRINKING WATER FACILITY						
i	Construction of new Tubewells & Management	Physical Nos. & Villages	1 no. each at Dudukupada Sahi, Rangamatia Sahi, Rugudi Sahi	1 no. each at Majhi sahi & Munda Sahi	1 no. each at Mata Sahi, Ratha Sahi, Bhuina Sahi, Bhuina Sahi, Dhaladhi & Patra Sahi	
		Budget in Lacs	4.5	3.0	7.5	15.0
ii	Distribution of Surface Water through Pipeline	Physical Nos. & Villages	--	--	Phuljhar Village	
		Budget in Lacs	--	--	100.0	100.0
					Total (C)	**115.0**
COMMUNITY & INFRASTRUCTURE DEVELOPMENT						
i	Road Network (Constructed new exist point)	Physical Nos. & Villages	Phuljhar Village	--	Maintenance of Two nos. of bypasses has been planned to construct one in between Anra to Jagadal Dam and another for movement of inward and outward material without using the existing gate after completion	
		Budget in Lacs	5.0	--	50.0	55.0
ii	Installation of Solar Lights	Physical Nos. & Villages	2 nos. (Rugudi Sahi & Rangamatia Sahi) in Phuljahr Village	2 nos. (Mata Sahi & Munda Sahi) in Phuljahr Village	4 nos. (Munda Sahi of Andharikhaman village, Bhuina Sahi, Munda Sahi of Talraiguda village & Mahanta Sahi)	
		Budget in Lacs	6.0	6.0	12.0	24.0

S. No	Major Activity		Year of Implementation			Total Expenditure (Rs. in Lacs)
			2019-20 (Rs. in Lacs)	2020-21 (Rs. in Lacs)	2021-22 (Rs. in Lacs)	
iii	Construction of Community Latrine & Toilets	Physical Nos. & Villages	1 no. each at Rugudi Sahi & Rangamatia Sahi in Phuljhar Village	1 no. each at Mata Sahi, Phuljhar Village & Munda Sahi, Andharikhaman village	1 no. each at Mahanta Sahi, Munda Sahi, Munda Sahi & Bhuina Sahi	
		Budget in Lacs	6.0	6.0	12.0	24.0
iv	Construction of ITI Centre	Physical Nos. & Villages	--	--	1 no. in Phuljhar Village	
		Budget in Lacs	--	--	30.0	30.0
					Total (D)	**133.0**
					Grand Total (A+B+C+D)	**361.0**

12.11.15 Existing capital cost of project was Rs. 133.96 Crores. The capital cost of the proposed project is Rs. 1805.39 Crores and the capital cost for environmental protection measures is proposed as Rs. 50.0 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 10.25 Crores. The employment generation from the proposed expansion is 634 (Direct additional employment - Regular & Contractual). The details of cost for environmental protection measures is as follows:

Sl. No.	Particulars	Capital Cost (Rs. Lakhs)	Recurring Cost (Rs. Lakhs)
1	Air pollution control	4220.0	844.0
2	Water pollution control	126.3	23.5
3	Noise pollution control	8.5	4.5
4	Environmental monitoring and management	265.5	80.45
5	Occupational health	145.0	35.62
6	Green belt	85.6	21.45
7	Others (EIA/EMP, expert advice etc.)	15.3	2.35
8	Conservation Plan for protection of Forest	134.606	13.46
	Total	**5000.5**	**1025.33**

12.11.16 Existing green belt has been developed in 12.171 ha area which is about 33.09% of the total project area of 36.781 ha with total sapling of 18,210 Trees. Proposed greenbelt will be developed in 27.030 ha which is about 34.0% of the total project area 79.501 ha. Thus total of 39.171ha area (33.68% of total project area) will be developed as greenbelt. A 30 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2,500 trees per hectare. Total no. of 67500 saplings will be planted and nurtured in 27.030 hectares in 4 years.

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

Certified Compliance Report from Integrated Regional Office

12.11.18 The Status of compliance of earlier EC was initially obtained from Integrated Regional Office, Bhubaneswar vide letter no101-884/18/EPE, dated 25.03.2021 in the name of M/s Ardent Steel Limited. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Bhubaneswar vide letter no. ASL/MoEF&CC/2022 dated 04.04.2022. MoEF&CC (IRO), Bhubaneswar evaluated the same and issued letter dated 11.04.2022. The details of the observations made by IRO in the report dated 11.04.2022 along with its re-assessment/present status as furnished by the PP is given as below.

S. No.	Non-compliance details	Observation of IRO	Condition no.			Re-assessment by RO/Response by PP
			EC date	Specific	General	
1.	The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common / criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and S02 and NOX in reference to S02 and NOX emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 1200each), covering upwind and downwind directions.	PAs need to install CAAQMS at the earliest	03.02.2020		II (iii)	The ambient air quality is within the standards stipulated by CPCB. AAQ monitoring is done through a NABL Accredited agency and results are submitted to Ministry's Regional Office at Bhubaneswar/ OPCB/ CPCB once in three month.
2.	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	PAs need to provide status of the installation and when it will be completed.	03.02.2020		II (vi)	PTFE Bag Filters have been installed. PP changes Bag Filter in every three months. Differential Pressure has been installed across the bag filter & continuous monitoring is done for the observation for better leakage control & maintenance of bags.

S. No.	Non-compliance details	Observation of IRO	Condition no.			Re-assessment by RO/Response by PP
			EC date	Specific	General	
3.	Provide covered shed for raw materials like scrap and sponge iron, lump ore, coal etc	It is recommended to store coal in the shed.	03.02.2020		II (x)	Detailed design of the structure has been completed and execution of the work is completed. Shed has been completed.
4.	Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.	PAs need to intimate whether the ventilation system for adequate air changes is according to the ACGIH document for tunnels, Motor houses and oil cellars.	03.02.2020		II (xii)	As per ACGIH proper ventilation & lighting has been done at two nos. of Tunnels, one Motor House & four Cellar. Adequate cross ventilation were arranged in the above site.
5.	The waste oil, grease and other hazardous waste like acidic sludge from pickling, galvanizing, chrome plating mills etc. shall be disposed of as per the Hazardous & Other waste (Management &Transboundary Movement) Rules, 2016.	PAs needs to submit the Toxic metal content in the waste material and its composition and end used and submit it to this office.	03.02.2020		VI (i)	There is no such toxic metal contains in waste material generated from Plant like Used Oil & Oil Sludge (Furnace Oil/LDO)
6.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F. No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.	Pas need to provide details of activities undertaken under CER and their implementation status	03.02.2020		IX (i)	1. IT skill development programms are being conducted to the school students of the nearby villages by company's IT professionals . 2. Distributed of 5000 nos. of saplings to the periphery villagers at a cost of Rs. 1.5 Lakhs. 3. Already supplied of drinking water to nearby villagers at a cost of Rs. 15 lakhs. 4. Already engaged 10 nos. of company recruited teachers

S. No.	Non-compliance details	Observation of IRO	Condition no.			Re-assessment by RO/Response by PP
			EC date	Specific	General	
						and deputed them in different schools of neraby villagers at cost of Rs. 7.8 lakhs per annum. 5. Already engaged dedicated Ambulance at a cost of Rs. 10 lakhs. 6. Already constructed 20 bedded with all equipments & professional to over come Pandemic situation arises due to Covid-19.

The IRO, MoEFC visited the site on 24.06.2022 to monitor the status of not-complied/Partially complied conditions and IRO MoEF&CC has issued the comments on ATR submitted by PP vide letter no. 101-884/EPE/2073, dated 23.08.2022. PP has further submitted Photo affidavit vide certificate dated 24.08.2022 regarding installation of CAAMQS. The review of ATR by IRO is as follows:

S. No	Observations of Regional Office vide monitoring letter dated 25-03-2021	Action Taken Report submitted by M/s Ardent Steel dated 4th April, 2022 & 07.07.2022	Comments of IRO, Bhubaneswar
EC No. J-11011/112/2013-IA.II(I Dated 13th Feb., 2020			
1.	Point No.2: PAs have informed that due to frequent network problem data transmission is not successful. PAs need to immediately take action on this. (General condition No.II-i)	Online stack monitoring facility for the stack has been installed (Make: FORBES MARSHALLS) and is also calibrated. Due to the frequent network problems, data transmission is not always successful. Jio fibre network will be installed in the plant. Sufficient air pollution control devices i.e. ESP has been provided to keep the pollution level in Control. (Reply: Dated 4th April, 2022)	During visit online monitoring system observed at the stack connected to ESP. However, regular transmission of data to SPCB yet to be done. PP informed that Due to the frequent network problems, data transmission is not always successful. Online monitoring system to stack connected to bag filter yet to be provided. The PA to inform IRO Bhubaneswar regarding online monitoring system in all the stack and connection to SPCB and CPCB server regarding data transmission.
2.	Point No.3: PAs need to install CAAQMS at the earliest. (General condition No.II-iii)	The ambient air quality is within the standards stipulated by CPCB. AAQ monitoring is done through a NABL	Continuous Ambient Air Quality monitoring station has not been provided. An undertaking has been furnished indicating that the

S. No	Observations of Regional Office vide monitoring letter dated 25-03-2021	Action Taken Report submitted by M/s Ardent Steel dated 4th April, 2022 & 07.07.2022	Comments of IRO, Bhubaneswar
		Accredited agencyy and results are submitted to Ministry's Regional Office at BBhubaneswar/ OPCB/ CPCB once in three month. (Reply: Dated 07-07- 2022)	continuous Ambient Air Quality monitoring will be installed by 31st December 2022, and furnish a copy of the work order dated 14-07-2022 for 04 Nos. of continuous ambient air quality monitoring station. PP furnished manual ambient air quality monitoring data of four location. Ministry may like to take appropriate view on the issue.
3.	Point No.5: PAs need to provide status of installation of leakage detection and mechanized bag cleaning facilities for better maintenance of bags and when it will be completed. (General condition No.II-vi)	PTFE Bag Filters has been installed. We change Bag Filter in every three months. Differential Pressure has been installed across the bag filter & continuous monitoring for the observation for better leakage control & maintenance of bags. (Reply: Dated 07-07- 2022)	PP informed that PTFE bag filter has been installed. The PA to inform the installation of Mechanized bag cleaning facility and installation of leakage detection may be intimated to IRO, Bhubaneswar at the earliest.
4.	Point No.6: It is recommended to store coal in the shed. (General condition No.II-x)	Detailed design of the structure has been completed and execution of the work is completed. Permanent shed has been completed for raw material storage. (Reply: Dated 07-07-2022)	Shed has been provided for pet coke. However, during visit iron ore was found to be kept in open. The PP should ensure cover to all raw material and inform to IRO Bhubaneswar.
5.	Point No.7: PAs need to intimate whether the ventilation system for adequate air changes is according to the ACGIH document for tunnels, motor houses and oil cellars. (General condition No.II-xii)	As per ACGIH proper ventilation & lighting has been done a two nos. of Tunnels, one Motor House & four Cellars. Adequate cross ventilation was arranged in the above site. (Reply: Dated 07-07- 2022)	Ventilation has been provided to tunnel, Motor House and Cellars. PP reported that as per ACGIH proper ventilation & lighting has been done.
6.	Point No.8: PAs have informed that since the plant is operating on the concept of 'zero liquid	The plant is operating on the concept of 'zero liquid discharge' i.e. no effluent is discharged outside the plant premises.	During visit discharge of waste water has not been observed. Water generated in the process is being settled in settling ponds and recycled

S. No	Observations of Regional Office vide monitoring letter dated 25-03-2021	Action Taken Report submitted by M/s Ardent Steel dated 4th April, 2022 & 07.07.2022	Comments of IRO, Bhubaneswar
	discharge' i.e. no effluent is discharged outside the plant premises, therefore no continuous effluent quality monitoring system is required to monitoring discharge of effluent liquid. This issue may be appraised in the Ministry. (General condition No.III-i)	Hence, no continuous effluent quality monitoring system is required to monitor the discharge of the effluent liquid. (Reply: Dated 4th April, 2022)	back to the process. However, rain water runoff collection system should be provided to ensure zero discharge. PP informed that no effluent is discharged outside the plant premises. Hence, no continuous effluent quality monitoring system is required to monitor the discharge of the effluent liquid.
7.	Point No.11: PAs need to provide details with documents concerned for initiation of the process of installing solar power generation. (General condition No.V-ii)	Earlier the project has initiated the process to install OFF GRID solar power plant on the roof tops of 5 KW for office building and public areas. Now, 20 KWP off grid solar power plant will be installed and in this regard order has been placed. (Reply: Dated 4th April, 2022)	During visit solar plates has been found to be stored in the premises, PP is in the process of installation of solar plate. PP to furnish details regarding installation of solar light system for all common area, street light, parking area, etc. in roof top for office building and public areas.
8.	Point No.12: PAs need to submit the toxic metal content in the waste material and its composition and end used and submit it to this Office. (General condition No.VI-i)	There is no such toxic metal contains in our waste material generated from Plant like Used Oil & Oil Sludge (Furnace Oil/LDO). (Reply: Dated 07-07-2022)	Hazardous waste authorization has been accorded by OSPCB vide letter No. IND-IV-HW-951 / 8499 dated 18.05.2022 with validity till 31.03.2024. PP submitted that there is no such toxic metal contains in the waste material generated from Plant like Used Oil & Oil Sludge.
9.	Point No.13: PAs need to prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation. (General condition No.VII-ii)	A consultant has been assigned to study and prepare a CHG emission inventory and produce the programme guideline for reduction of the same including carbon sequestration. 3200 saplings have been planted to reduce CHG. (Reply: Dated 4th April, 2022)	Copy of work order has been furnished to Regional Office for preparation of greenhouse gas emission inventory for the plant to M/s Centre for Envirotech & Management Consultancy Pvt. Ltd. Vide letter dated 16th July, 2022.

S. No	Observations of Regional Office vide monitoring letter dated 25-03-2021	Action Taken Report submitted by M/s Ardent Steel dated 4th April, 2022 & 07.07.2022	Comments of IRO, Bhubaneswar
10.	Point No. 14: PAs need to carry out heat stress analysis for the workmen who work in high temperature work zone as per the norms of Factory Act. (General condition No.VIII-ii)	Heat stress analysis for the workmen will be carried out. Operators are provided with ear muffs and ear plugs, full body asbestos apron issued to employees working in the heat zone. (Reply: Dated 4th April, 2022)	Heat stress analysis data report has been furnished for 2022-23, 2021-22, 2020-21 for 34, 38, 34 number of employees respectively. It has also been reported that 'there is no such heat stress related illness found'.
11.	Point No.15: PAs need to provide details of activities undertaken under CER and their implementation status. (General condition No.IX-i)	1. IT skill development programs are being conducted to the schools nearby villages by company's IT professionals. the school students of the nearby villages by company's IT professionals. 2. Distributed of 5000 nos. of saplings to the periphery villagers at a cost of Rs. 1.5 lakh 3. Already supplied of drinking water to nearby villagers at a cost of Rs. 15 lakhs. 4. Already engaged 10 nos. of company recruited teachers and deputed them in different schools of nearby villagers at cost of Rs. 7.8 lakhs per annum. 5. Already engaged dedicated Ambulance at a cost of Rs.10 lakhs. 6. Already constructed 20 bedded with all equipments & professional to overcome	CER activities such as IT skill development programme in school, distribution of 5000 number of saplings to periphery villagers, drinking water to nearby villagers, 10 numbers to teacher deputed in different school are being undertaken. It was also informed that ambulance facility and 20 bedded facility to overcome pandemic situation due to Covid-19 has been provided.

S. No	Observations of Regional Office vide monitoring letter dated 25-03-2021	Action Taken Report submitted by M/s Ardent Steel dated 4th April, 2022 & 07.07.2022	Comments of IRO, Bhubaneswar
		Pandemic situation arises due to Covid-19. (Reply: Dated 07-07- 2022)	
12.	Point No.17 PAs have not provided any information with respect to self-environmental audit that has to be conducted annually. (General condition No.IX-v):	Designated 6 members as a team and headed by Dr. Subhasis Das (director) for Environmental Cell. (Reply: Dated 4th April, 2022)	Annual self environmental audit report of dated 31-03-2022 has been furnished.
	EC No. J-11011/112/2013-IA.II(I Dated 29.03.2016		
13.	Point No.19: As per G.S.R No. 826 (E) dated 16th November 2009 monitoring of O_3, Pb, Benzene (C6H6), Benzo (α) Pyrene (BAP), Arsenic (As), Nickel (Ni) need to be monitored also. PAs are thus recommended to measure all the parameters mentioned in G.S.R No. 826 (E) dated 16th November 2009 and submit the results to the Regional Office of MoEF&CC at Bhubaneswar. (Specific condition No.v)	Complied. (Reply: Dated 4th April, 2022)	Ambient air quality monitoring data of 6-05-2022 has been uploaded on the website of the company for 12 parameters. Data reported was within the norms of NAAQ 2009.
14.	Point No.22: It is required to install the solar light system at the earliest for all common area, street lights, villages, parking around project area and maintain the same regularly. (Specific condition No.xv)	Earlier the project has initiated the process to install off grid solar power plant on the roof tops of 5 KW for office building and public areas. Now, 20 KWP off grid solar power plant will be installed and in this regard order has been placed. (Reply: Dated 4th April, 2022)	During visit solar plates has been found to be stored in the premises, PP is in the process of installation of sola plate. PP requested to furnish details regarding installation of solar light system for all common area, street light, parking area, etc. in roof top for office building and public areas.

12.11.19 M/s. Ardent Steel Limited had earlier made an online application vide proposal no. IA/OR/IND/18852/2013 dated 22/06/2021 and the proposal was considered during 39th meeting

of the Re-constituted EAC (Industry-I) held on 30th June - 1st July, 2021 wherein the Committee after deliberations recommended the proposal to be returned in its present form as application for stage 1 FC has not been made by the proponent and the EIA proposal is not in compliance with the prescribed ToRs.

12.11.20 M/s. Ardent Steel Limited has again made an online application vide proposal no. IA/OR/IND/124925/2019 dated 28.06.2022 after addressing the issues made in the previous application by EAC. The proposal is considered in the 9th meeting of the EAC for Industry-I sector held on 14-15th July, 2022. The deliberations and recommendation of the Committee are as follows:

12.11.21 The proposal was initially considered in 9th EAC meeting of Re-constituted EAC (Industry – 1) held on 14-15th July, 2022. Proposal was deferred for want of additional information. The deliberations and recommendation is given as below:

Deliberations by the Committee (EAC during 14-15th July, 2022)

12.11.22 The Committee noted the following:

1. The Committee deliberated upon the certified compliance report of IRO MoEF&CC as well as action taken report submitted by PP with respect to the observations reported by IRO along with the closure report of IRO. The EAC noted that some of the conditions are still not complied / partially complied. The EAC opined that the project proponent shall submit a photo affidavit for compliance of condition w.r.t. installation of CAAMQS. For other non-complied / partially complied conditions, proponent has submitted that they have complied with the conditions and submitted the report to IRO vide letter dated 07.07.2022. However, IRO has not closed the case. In this regard, EAC advised PP to approach IRO for final closure report after inspection of IRO for further consideration.
2. 3500 nos. of trees are required to be felled at the project site. Project Proponent shall explore the possibility to minimise the felling of trees to bare minimum in their project site.
3. Out of the 116.282 hectare of land, 36.781 hectare of land is already in possession of M/s Ardent Steel Limited & rest of the land (i.e. 79.501 hectare) is under process. PP shall submit the updated status of acquisition of rest of the land (i.e. 79.501 hectare).
4. 01 Nos. artificial ponds (rain water harvesting pond) exists in the project site. Rivers and nallahs exists within the study area from the project site. PP is required to submit the detailed management plan/conservation plan to ensure conservation of water bodies.
5. PP may formulate Village Adoption program consisting of need-based community development activities, in consultation with the district administration and the village panchayats w.r.t. undertaking submitted vide letter dated 15.07.2022 for adoption of 7 villages namely Bhuyansahi, Fuljhar, Rugudisahi, Rangamatia, Andharikhaman, Chhatana and Balabhadrapur.
6. Layout Plan shall be prepared in such a way that the existing GB shall be safeguarded. Further for proposed 27.03 ha of GB @ 2500 density a sufficient water provisions in water balance i.e. around 600 Cum per day shall be provided.

7. The Committee deliberated on the baseline data and observed that Project Proponent has not submitted the GLC Incremental data pertaining to CO.

Recommendations of the Committee (EAC during 14-15th July, 2022)

12.11.23 In view of the foregoing and after detailed deliberations, the committee recommended to **defer** the proposal and sought additional information on the points referred at para no. 12.11.23 above. The proposal shall be considered after submission of requisite information on Parivesh portal.

12.11.24 Based on the above deliberation, the project proponent has submitted the ADS reply vide letter dated 24.08.2022 uploaded on Parivesh on 24.08.2022. Point wise reply of ADS is given as below:

Sl.	Additional Detail Sought (ADS)	Submitted
1	The Committee deliberated upon the certified compliance report of IRO MoEFCC as well as action taken report submitted by PP with respect to the observations reported by IRO along with the closure report of IRO. The EAC noted that some of the conditions are still not complied / partially complied. The EAC opined that the project proponent shall submit a photo affidavit for compliance of condition w.r.t. installation of CAAMQS. For other non-complied / partially complied conditions, proponent has submitted that they have complied with the conditions and submitted the report to IRO vide letter dated 07.07.2022. However, IRO has not closed the case. In this regard, EAC advised PP to approach IRO for final closure report after inspection of IRO for further consideration.	The IRO has visited the site on 24.06.2022 to monitor the status of not-complied/Partially complied conditions and IRO MoEF&CC has issued the comments on ATR submitted by us vide letter no. 101-884/EPE/2073, dated 23.08.2022. IRO MoEF&CC report is submitted. The same is incorporated at para 12.11.18 above. Photo affidavit vide certificate dated 24.08.2022 regarding installation of CAAMQS is submitted.
2	3500 nos. of trees are required to be felled at the project site. Project Proponent shall explore the possibility to minimise the felling of trees to bare minimum in their project site.	While felling the trees (3500 Nos.) PP will explore possibility of minimum numbers of trees to be felled. At the same time PP will plant 10 times of the trees required to be felled as per site condition. PP will also pay felling, logging and transportation of the trees to be felled to DFO as per guidelines issue by MoEF&CC vide letter no. 5-1/2007-FC, dated 11.12.2008. Felling of trees will be done by OFDC after availing permission from DFO concerned.
3	Out of the 116.282 hectare of land, 36.781 hectare of land is already in possession of M/s Ardent Steel Limited & rest of the land (i.e. 79.501 hectare) is under process. PP shall submit the	Status of land acquisition: 1. Industrial Promotion and Investment Corporation of Odisha Limited (IPICOL) has approved and recommended to Industrial Infrastructure Development Corporation (IDCO) for Recommendation of 175.16 ha. towards allotment of land in favor of Ardent Steel Ltd. vide Letter no. SJ/ASL-CASF-1196, Dtd. 15.012.2017.

Sl.	Additional Detail Sought (ADS)	Submitted
	updated status of acquisition of rest of the land (i.e. 79.501 hectare).	2. Respond to the letter to IDCO, ASL has been deposited **Rs.2,44,55,617/-** vide invoice number 1/07/18/018369, dtd. 19.03.2018. 3. However, ASL ToR has been approved and the land proposed land reduced to 79.501 ha. as the forest land has been excluded from the proposal vide letter 29/11.2021 by MOEFCC. 4. PP has received NOC from Director of Geology, Irrigation Division, Minor Irrigation and Lift Irrigation, Govt. of Odisha for rest 79.501 ha of land. 5. PP has also received correspondence letter from IDCO to Tahasildar for land alienation/acquisition. 6. The process of land alienation has started since 2022 for 79.501 ha.
4	01 Nos. artificial ponds (rain water harvesting pond) exists in the project site. Rivers and nallahs exist within the study area from the project site. PP is required to submit the detailed management plan/conservation plan to ensure conservation of water bodies.	Detailed water management plan is as follows: The project area falls under the catchment of Malda river. Bamni nalla in flowing at distance of 1.5 km, west side of the plant and is tributary of Malda river. There is an existing 01 nos. of rain water harvesting pond within the plant premises. The water conservation like rain water harvesting, artificial recharge systems, recycle and reuse of waste water systems already adopted and as suggested in EIA/EMP report shall ensure that the water bodies present in the nearby area does not get polluted due to the industrial activity. The plant is adopt zero discharge concepts except surface runoff during monsoon. To achieve the above objective, the plant is/shall adopt following conservation measures. 1. Industrial wastewater comprising blow downs from cooling towers and boilers, DM unit regeneration wastewater, wastewater from water pre-treatment and effluent from service water uses like plant washings, leakages, etc. contain high TDS & SS and will be collected in a sump and utilized quantitatively for dust suppression and ash handling. 2. Cooling tower blow down and boiler blow down will be collected in a separate sump and will utilized for dust suppression in the raw material handling area and horticulture. 3. Acidic / Alkaline effluent will be generated at the DM plant. These effluents will be properly neutralized before recycling back for dust suppression. 4. Run off from coal and iron ore handling areas and run off from solid waste storage & handling areas. All storm water drains from the raw materials and solids waste handling areas will be routed through catch pits of sufficient volume to settle out suspended solids present in the storm water runoff. 5. Sewage from buildings - Sewage from the toilets, washrooms and canteen will be treated in sewage treatment plant and after treatment used in horticulture. 6. One additional Rain Water Harvesting Pond is proposed in the eastern part of the project as depicted in lay out plan which shall

Sl.	Additional Detail Sought (ADS)	Submitted
		collect the rain water through storm water drain already constructed around the plant and will not allow the storm water to go outside of the premises. 7. Roof top rain water harvesting structures has been constructed by constructing two storage pit having size of each 2mtx2mtx2mt inside the plant. 8. Another storage tank having capacity of 3mtx3mtx2.5mt is dedicated to store the rain water harvested from the above mentioned two pits. 9. Roof top rain water harvesting and artificial recharge systems have already been executed at administrative buildings and the same has recharge through an injection well for ground water recharging. 10. Two STP are functioning with a capacity of 15 and 50 KLD to treat the domestic waste water. 11. Treated STP water is used for both green belt and dust management operation inside the plant. 12. Adequate numbers of Garland drains and collection pits are constructed for all the material handling area to arrest the run off.
5	PP may formulate Village Adoption program consisting of need-based community development activities, in consultation with the district administration and the village panchayats w.r.t. undertaking submitted vide letter dated 15.07.2022 for adoption of 7 villages namely Bhuyansahi, Fuljhar, Rugudisahi, Rangamatia, Andharikhaman, Chhatana and Balabhadrapur.	PP has informed to Sarpanch, Phuljhar for village adoption pragramme and development activities in Seven Villages namely Bhuyansahi, Fuljhar, Rugudisahi, Rangamatia, Andharikhaman, Chhatana and Balabhadrapur vide letter no. ASL/Sarpanch-Phuljhar/22-23/01, dated 28.07.2022. In reply Sarpanch, Phuljhar in his letter no. 23, dated 28.07.2022 has extended thanks to ASL for village adoption programme and mentioned that the villages will extend support and co-operation to implement village adoption programme. This is also informed to Collector cum DM, Keonjhar, Odiasha vide letter no ASL/Sarpanch-Phuljhar/22-23/01, dated 28.07.2022. All the three communication letter are submitted.
6	Layout Plan shall be prepared in such a way that the existing GB shall be safeguarded. Further for proposed 27.03 ha of GB@2500 density a sufficient water provisions in water balance i.e. around 600 Cum per day shall be provided.	PP will prepare the layout in such a way that, the Green Belt shall be safeguard and water requirement will be sufficient as shown in water balance diagram. Both old and new Water Balance diagram is submitted.
7	The Committee deliberated on the baseline data and observed that Project Proponent has not submitted the GLC Incremental data pertaining to CO.	CO Modeling has been carried out considering Point Source emission and Traffic emission. The maximum predicated values are 0.303 mg/m3 at Rangamatia which is at distance of 1.8 km. The details of input data related to emission of CO & AQIP Modeling results are submitted. The same is updated at para 12.11.12 above.

12.11.25 Based on the ADS reply submitted by the Project proponent, the proposal was reconsidered during the 12th meeting of the EAC for Industry-I sector held on 30-31st August, 2022. The deliberations and recommendations of the Committee are as follows:

Written representations:

12.11.26 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 31.08.2022 through email dated 31.08.2022 submitted the following information based on the observations of IRO:

Sl. No.	IRO, MoEFCC Observation	Commitment/Submission by the PP
1	During visit online monitoring system observed at the stack connected to ESP. However, regular transmission of data to SPCB yet to be done. PP informed that due to the frequent network problems, data transmission is not always successful. Online monitoring system to stack connected to bag filter yet to be provided. The PA to inform IRO Bhubaneswar regarding online monitoring system in all the stack and connection to SPCB and CPCB server regarding data transmission.	PP will ensure regular transmission of Data from Online monitoring system to SPCB shall be done within 3 months. Online monitoring system to stack connected to bag filter shall be provided within 3 months and accordingly the implementation status of the above shall be informed to IRO, Bhubaneswar.
2	Continuous Ambient Air Quality monitoring station has not been provided. An undertaking has been furnished indicating that the continuous Ambient Air Quality monitoring will be installed by 31st December 2022, and furnishes a copy of the work order dated 14-07-2022 for 04 Nos. of continuous ambient air quality monitoring station. PP furnished manual ambient air quality monitoring data "of four lo action. Ministry may like to take appropriate view on the issue.	CAAQMS shall be installed by 31.12.2022 as already committed.
3	PP informed that PTFE bag filter has been installed. The PA to inform the installation of Mechanized bag cleaning facility and installation of leakage detection to IRO, Bhubaneswar at the earliest.	PP will install the mechanized bag cleaning facility and installation of leakage detection to IRO within a month.
4	Shed has been provided for pet coke. However, during visit iron ore was found to be kept in open. The PP should ensure cover to all raw materials and informed to IRO, Bhubaneswar.	PP has provided cover shed for all raw material excluding iron ore fines. PP is committed to make impervious sheets to avoid pollution and arrangements to construct shed shall be done for our iron ore fines on or before 31st March 2023.

Sl. No.	IRO, MoEFCC Observation	Commitment/Submission by the PP
5	Ventilation has been provided to tunnel, Motor House and Cellars. PP reported that as per ACGIH proper ventilation & lighting has been done.	Noted
6	During visit discharge of waste water has not been observed. Water generated 111 the process is being settled in settling ponds and recycled back to the process. However, rain water runoff collection system should be provided-to ensure zero discharge. PP informed that 'no effluent is discharged outside the plant premises. Hence, no continuous effluent quality monitoring system is required to monitor the discharge of the effluent liquid'.	PP will provide rainwater runoff collection system within 6 months and will strictly ensure ZLD from the plant.
7	During visit solar plates has been found to be stored in the premises. PP is in the process of installation of solar plates. PP to furnish details regarding installation of solar system for all the common area, street lights, parking are etc in roof top for office buildings and public areas.	PP will furnish the details regarding installation of solar light as soon as the system is installed.
8	Hazardous waste authorization has been accorded by OSPCB vide letter No. IND-IV-HW-951 / 8499 dated 18.05.2022 with validity till 31.03.2024. PP submitted that there is no such toxic metal contains in the waste material generated from Plant like Used Oil & Oil Sludge.	Noted
9	Copy of work order has been furnished to Regional Office for preparation of green house gas emission inventory for the plant to M/s Centre for Envotech & Management Consultancy Pvt. Ltd. Vide letter dated 16th July, 2022.	The consultant has committed to complete it by 31st December 2022.
10	Heat stress analysis data report has been furnished for 2022-23, 2021-22, 2020-21 for 34, 38, 34 number of employees respectively. It has also been reported that 'there is no such heat stress related illness found'.	Noted
11	CER activities such as IT skill development programme in school, distribution of 5000 number of saplings to the periphery villagers, drinking water to nearby villagers, 10 numbers teachers to depute in different school are being undertaken. It was also informed that ambulance facility and 20 bedded facilities to overcome pandemic situation due to Covid-19 has been provided.	Noted

Sl. No.	IRO, MoEFCC Observation	Commitment/Submission by the PP
12	Annual self-environmental audit report on dated 31.03.2022 has been furnished.	Noted
13	Ambient air quality monitoring data of 6-05-2022 has been uploaded on the website of the company for 12 parameters. Data reported was within the norms of NAAQ 2009	Noted
14	During visit solar plates has been found to be stored in the premises. PP is in the process of installation of solar plates. PP to furnish details regarding installation of solar light system for all the common area, street lights, parking are etc in roof top for office buildings and public areas.	This is committed at point no.2.

Deliberations by the Committee

12.11.27 The Committee noted the following:

1. Instant proposal is for expansion of Iron Ore Pelletizing plant (0.85 MTPA to 1.7 MTPA) along with additional installation of Iron Ore Beneficiation (3.0 MTPA), DRI Plant (0.36 MTPA), Pig Iron Blast Furnace (0.6 MTPA), Sinter Plant (0.60 MTPA), SMS (0.72 MTPA), Rolling Mills (0.7 MTPA) & Captive Power Plant- 70 MW (WHRB-35 MW & AFBC-35 MW).
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. Out of the 116.282 hectare of land, 36.781 hectare of land is already in possession of M/s Ardent Steel Limited & rest of the land (i.e. 79.501 hectare) is under process.
6. 01 Nos. artificial ponds (rain water harvesting pond) exists in the project site. Rivers and nallahs exists within the study area from the project site.

7. There is 1 no. of Schedule - I species reported in study area, namely Elephant *(Elephas maximus*). Site Specific Wildlife Conservation Plan has been approved by PCCF(Wildlife) & Chief Wildlife Warden vide letter NO. 2708/CWLW-FDWC-MISC-0002-2022 dated 26.03.2022 with a budgetary provision of Rs. 134.606 Lakhs.
8. Existing green belt has been developed in 12.171 ha area which is about 33.09% of the total project area of 36.781 ha with total sapling of 18,210 Trees. Proposed greenbelt will be developed in 27.030 ha which is about 34.0% of the total project area 79.501 ha. Thus total of 39.171ha area (33.68% of total project area) will be developed as greenbelt. Total no. of 67500 saplings will be planted and nurtured in 27.030 hectares in 4 years.
9. PP has submitted an undertaking vide letter dated 15.07.2022 for adoption of 7 villages namely Bhuyansahi, Fuljhar, Rugudisahi, Rangamatia, Andharikhaman, Chhatana and Balabhadrapur.
10. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
11. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the green belt development shall be completed within one year.
12. The Committee also deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
13. The Committee deliberated upon the certified compliance report of IRO MoEFCC as well as action taken report submitted by PP with respect to the observations reported by IRO along with the review report of IRO. The EAC noted that some of the conditions are still not complied / partially complied. The IRO re-visited the site on 24.06.2022 to monitor the status of not-complied/Partially complied conditions and IRO MoEF&CC has issued the comments on ATR submitted by PP vide letter no. 101-884/EPE/2073, dated 23.08.2022. Project proponent vide letter dated 31.08.2022 has submitted an undertaking to comply with not-complied/Partially complied conditions. PP has also submitted a photo affidavit vide certificate dated 24.08.2022 regarding installation of CAAMQS. EAC directed the PP to complete all the tasks by the stipulated timelines and report shall be submitted to IRO, MoEFCC.
14. The EAC deliberated on the ADS reply submitted by the PP and found it satisfactory.
15. The EAC also deliberated on the written submissions submitted by the proponent and found it satisfactory.
16. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
17. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974

and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

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

A. Specific conditions

i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

iii. Land acquisition shall be completed prior to commencement of project activities.

iv. 01 Nos. artificial ponds (rain water harvesting pond) exists in the project site. Rivers and nallahs exists within the study area from the project site. The water bodies shall not be disturbed. Mitigation measures as committed w.r.t. safeguarding the water bodies shall be implemented.

v. As committed vide undertaking dated 15.07.2022 for adoption of 7 villages namely Bhuyansahi, Fuljhar, Rugudisahi, Rangamatia, Andharikhaman, Chhatana and Balabhadrapur, PP shall formulate Village Adoption program consisting of need-based community development activities, in consultation with the district administration and the village panchayats and implement the same to develop them into model villages.

vi. Project Proponent shall strictly comply with the conditions observed by the IRO in the CCR and compliance status in this regard, shall be submitted to concerned Integrated Regional Office of the MoEF&CC. PP shall install CAAMQS by 31.12.2022 as committed.

vii. Tailings from Iron Ore washing plant shall be dewatered in filter press and no slime /tailing pond shall be permitted.

viii. Solid waste utilization

- PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
- PP shall recycle/reuse 100 % solid waste generated in the plant.
- Used refractories shall be recycled as far as possible.

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

x. Tar shall be recovered from producer gas and shall be sold to registered processors and phenolic water shall be incinerated in After Burn Chamber (ABC) of DRI kilns.

xi. Blast Furnaces shall be equipped with Top Recovery Turbine (capacity more than 450m^3), dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.

xii. Secondary fume extraction system shall be installed on converters of Steel Melting Shop.

xiii. Submerged Arc/Electric Arc Furnace shall be closed type with 4th hole extraction system.

xiv. 85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil or Mixed BF/CO gas/Producer gas.

xv. Dust emission from Steel Plant stacks shall be up to 30 mg/Nm^3.

xvi. The water requirement for the proposed project is estimated as 12,830 m^3/day which will be obtained from Baitarani River after obtaining necessary permission. No GW abstraction is permitted.

xvii. Three tier Green Belt shall be developed in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

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

xix. Project Proponent shall explore the possibility to minimise the felling of trees to bare minimum in their project site.

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

xxi. Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.

xxii. PP shall make arrangements for impervious sheets to avoid pollution and to construct shed for iron ore fines on or before 31st March 2023 as committed.

xxiii. The proposed project shall be designed as "Zero Liquid Discharge" Plant. No waste water will be discharged outside the plant boundary.

xxiv. Air cooled condensers shall be used in the power plant.

xxv. The Unit is existing and using coal and coke. Therefore, the industry is recommended to measure silica and coal dust exposures using personal and area air samplers in process plants and to be compared with Permissible exposure limits as per Indian Factories Act, 1948. Report to be submitted to the IRO, MoEFCC.

xxvi. A proper action plan must be implemented to dispose of the electronic waste generated

xxvii. The recommendations of the approved Site-Specific Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation

report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.

xxviii. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

xxix. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

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

B. General conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 04 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification

through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

iii. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.

iv. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

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

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

vii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.

viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.

ix. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).

x. Land-based APC system shall be installed to control coke pushing emissions.

xi. Monitor CO, HC and O2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.

xii. Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.

xiii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

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

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
v. Tyre washing facilities shall be provided at the entrance of the plant gates.
vi. Water meters shall be provided at the inlet to all unit processes in the steel plants.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

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

VII. Green Belt

i. Green belt shall be developed in an area equal to 33% of the plant area with native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration by trees in the plant premises.
iii. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

VIII. Public hearing and Human health issues

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

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.
ii. The company shall have a well laid down environmental policy duly 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. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

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

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

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

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

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

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ANNEXURE –1

Standard ToR in line with Appendix III of the EIA, 2006. applicable to Proposals Under Industry-1 Sector

Preliminary requirements:

i. EIA/EMP report cover page shall consists of project title with location, applicable schedule of the EIA Notification, 2006, ToR letter No. with date, study period along with EIA consultant & laboratory details with QCI/NABET/NABL accreditation certificate detail.

ii. Besides, following points shall be compiled as per QCI/NABET norms:
   a. Disclaimer by the EIA consultant.
   b. Declaration by the Functional Area Experts contributed to the EIA study and declaration by the head of the accredited consultant organization/authorized person.
   c. Undertaking by the project proponent owning the contents (information and data) of the EIA/EMP report.
   d. Undertaking by the EIA consultant regarding compliance of ToR issued by MoEF&CC.
   e. Consultant shall submit the Plagiarism Certificate for the EIA/EMP Report.

Structure of EIA/EMP report

Executive Summary

i. Table of Contents of the EIA report including list of tables/figures/annexures/abbreviations/symbols/notations.

ii. Point wise compliance to the ToR issued by MoEF&CC.

iii. Executive Summary
   I. Introduction
      i. Name of the project along with applicable schedule and category as per EIA, 2006.
      ii. Location and accessibility
   II. Project description
      i. Resource requirements (Land; water; fuel; manpower)
      ii. Operational activity
      iii. Key pollution concerns
   III. Baseline Environment Studies
      i. Ambient air quality
      ii. Ambient Noise quality
      iii. Traffic study
      iv. Surface water quality
      v. Ground water quality
      vi. Soil quality
      vii. Biological Environment
      viii. Land use
      ix. Socio-economic environment
   IV. Anticipated impacts

i. Impact on ambient air quality
ii. Impact on ambient noise quality
iii. Impact on road and traffic
iv. Impact on surface water resource and quality
v. Impact on ground water resource and quality
vi. Impact on terrestrial and aquatic habitat
vii. Impact on socio-economic environment

V. Alternative analysis
VI. Environmental Monitoring program
i. Ambient air, noise, water and soil quality
ii. Emission and discharge from the plant
iii. Green belt
iv. Social parameters

VII. Additional studies
i. Risk assessment
ii. Public consultation
iii. Action plan to address the issues raised during public consultation as per MoEF&CC O.M. dated 30/09/2020

VIII. Project benefits
IX. Environment management plan
i. Air quality management plan
ii. Noise quality management plan
iii. Solid and hazardous waste management plan
iv. Effluent management plan
v. Storm water management plan
vi. Occupational health and safety management plan
vii. Green belt development plan
viii. Socio-economic management plan
ix. Project cost and EMP implementation budget.

EIA/EMP Report

1. Introduction

i. Background about the project
ii. Need of the project
iii. Purpose of the EIA study
iv. Scope of the EIA study

2. Project description

A. Site Details

i. Location of the project site covering village, Taluka/Tehsil, District and State.
ii. Site accessibility
iii. A digital toposheet in pdf or shape file compatible to google earth of the study area of radius of 10km and site location preferably on 1:50,000 scale. (including all eco-sensitive areas and environmentally sensitive places).

iv. Latest High-resolution satellite image data having 1 m - 5 m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary co-ordinates. Area must include at least 100 m all around the project location.

v. Environment settings of the site and its surrounding along with map.

vi. A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.

vii. In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.

viii. In case if the project site is in vicinity of the river, the industry shall not be located within the river flood plain corresponding to one in 25 years flood, as certified by concerned District Magistrate/Executive Engineer from State Water Resources Department (or) any other officer authorized by the State Government for this purpose as per the provisions contained in the MoEF&CC Office Memorandum dated 14/02/2022.

ix. In case of canal/ nala/ seasonal drain and any other water body passing through project site, the PP shall submit the suitable steps /conservation plan/mitigation measures along with contouring, Run -off calculations, disposal etc. A robust and full proof Drainage Conservation scheme to protect the natural drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided in the report.

x. Type of land, land use of the project site needs to be submitted.

xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process as per the MoEF&CC O.M. dated 7/10/2014 shall be furnished.

xii. Project proponent shall prepare Engineering layout plan showing all internal roads minimum 6 m width and 9 m turning radius for smooth traffic flow inside including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.

xiii. Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including Rain Water Harvesting details with calculations mentioning about GW recharge along with relevant drawing.

xiv. A detailed report covering all aspects of Fire Safety Management and Fire Emergency Plan shall be submitted.

xv. Details of drone survey for the site, needs to be included in report and presented before the EAC during appraisal of the project.

B. Forest and wildlife related issues (if applicable):

i. Status of Forest Clearance for the use of forest land shall be submitted.
ii. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10 km radius of national park/sanctuary wherein final ESZ notification is not in place as per MoEF&CC Office Memorandum dated 8/8/2019.
iii. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.
iv. Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna along with budget and action plan, if any exists in the study area.

C. Salient features of the project

i. Products with capacities in **Tons per Annum** for the proposed project.
ii. If expansion project, status of implementation of existing project, details of existing/proposed products with production capacities in Tons per Annum.
iii. Site preparatory activities.
iv. List of raw materials required and their source along with mode of transportation.
v. Other than raw materials, other chemicals and materials required with quantities and storage capacities.
vi. Manufacturing process details along with process flow diagram of proposed units.
vii. Consolidated materials and energy balance for the project.
viii. Total requirement of surface/ ground water and power with their respective sources, status of approval.
ix. Water balance diagram
x. Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase.
xi. Man-power requirement.
xii. Cost of project and scheduled time of completion.
xiii. In case of expansion projects, project proponent shall submit structural stability certificate showing whether existing structure withstand for proposed expansion activity.
xiv. Brief on present status of compliance (Expansion/modernization proposals)
    a. Cumulative Environment Impact Assessment for the existing as well as the proposed expansion/modernization shall be carried out.
    b. In case of ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next two years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source.
    c. Copy of all the Environment Clearance(s) including Amendments/validity of extension/transfer of EC, there to obtained for the project from MoEF&CC/SEIAA shall be attached as Annexures. A Certified Compliance Report (CCR) of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change/ or concerned authority as per OM

No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022 on the status of compliance of conditions stipulated in all the existing environment clearances including amendments shall be provided. A Certified Compliance Report (CCR) issued by the concerned Authority shall be valid for a period of one year from the date of inspection.

d. In case the existing project has not obtained Environment Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. A proper justification needs to be submitted along with documentary proof. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 1994 or 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of CTO from the Regional Office of the SPCB shall be submitted, as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022. CCR on CTO conditions issued by the concerned SPCBs/PCCs shall be valid for a period of one year from the date of inspection of the project.

3. Description of the Environment

i. Study period

ii. Approach and methodology for data collection as furnished below.

Attributes	Sampling		Remarks
	Network	Frequency	
A. Air Environment			
Micro-Meteorological • Wind speed (Hourly) • Wind direction • Dry bulb temperature • Wet bulb temperature • Relative humidity • Rainfall • Solar radiation • Cloud cover • Environmental Lapse Rate	Minimum 1 site in the project impact area	1 hourly continuous	• IS 5182 Part 1-20 • Site specific primary data is essential • Secondary data from IMD, New Delhi • CPCB guidelines to be considered.
Pollutants • $PM_{2.5}$	At least 8-12 locations	As per National Ambient Air Quality Standards, CPCB Notification.	• Sampling as per CPCB guidelines • Collection of AAQ data (except in monsoon season) • Locations of various stations for different
• PM_{10}			
• SO_2			
• NOx			
• CO			
• HC			

Attributes	Sampling		Remarks
	Network	Frequency	
• Other parameters relevant to the project and topography of the area			parameters should be related to the characteristic properties of the parameters. • The monitoring stations shall be based on the NAAQM standards as per GSR 826(E) dated 16/11/2009 and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests, • Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAAQM Notification of 16/11/2009 along with min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
B. Noise			
• Hourly equivalent noise levels	At least 8-12 locations	As per CPCB norms	-
C. Water			

Attributes	Sampling		Remarks
	Network	Frequency	
Parameters for water quality • pH, temp, turbidity, magnesium hardness, total alkalinity, chloride, sulphate, nitrate, fluoride, sodium, potassium, salinity • Total nitrogen, total phosphorus, DO, BOD, COD, Phenol • Heavy metals • Total coliforms, faecal coliforms • Phyto-plankton • Zoo-plankton • Microalgae/microalgal bloom	Samples for water quality should be collected and analyzed as per: • IS: 2488 (Part 1-5) methods for sampling and testing of Industrial effluents • Standard methods for examination of water and wastewater analysis published by American Public Health Association.		
For River Bodies • Total Carbon • pH • Dissolved Oxygen • Biological Oxygen Demand • Free NH4 • Boron • Sodium Absorption Ratio • Electrical Conductivity • TDS	• Surface water quality of the nearest River (60m upstream and downstream) and other surface water bodies	• Yield of water sources to be measured during critical season • Standard methodology for collection of surface water (BIS standards)	
For Ground Water	• Ground water monitoring data should be collected at minimum of 8 locations (from existing wells /tube wells/existing current records) from the study area and shall be included.		
D. Traffic Study			
• Type of vehicles • Frequency of vehicles for transportation of materials	-		

Attributes	Sampling		Remarks
	Network	Frequency	
• Additional traffic due to proposed project • Parking arrangement			
E. Land Environment			
Soil • Particle size distribution • Texture • pH • Electrical conductivity • Cation exchange capacity • Alkali metals • Sodium Absorption Ratio (SAR) • Permeability • Water holding capacity • Porosity	Soil samples be collected as per BIS specifications		
Land use/Landscape • Location code • Total project area • Topography • Drainage (natural) • Cultivated, forest, plantations, water bodies, roads and settlements	-		
E. Biological Environment			
Aquatic • Primary productivity • Aquatic weeds • Enumeration of phyto plankton, zoo plankton and benthos • Fisheries • Diversity indices • Trophic levels • Rare and endangered species • Marine Parks/ Sanctuaries/ closed	• Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. Indicator species which indicate ecological and environment degradation should be identified and included to clearly state whether the proposed project would result in to any adverse effect on any species. • Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site. • For forest studies, direction of wind should be considered while selecting forests.		

Attributes	Sampling		Remarks
	Network	Frequency	
areas /coastal regulation zone (CRZ) **Terrestrial** • Vegetation-species list, economic importance, forest produce, medicinal value • Importance value index (IVI) of trees • Fauna • Avi fauna • Rare and endangered species • Sanctuaries / National park / Biosphere reserve • Migratory routes	• Secondary data to collect from Government offices, NGOs, published literature.		
F. Socio-economic			
• Demographic structure • Infrastructure resource base • Economic resource base • Health status: Morbidity pattern • Cultural and aesthetic attributes • Education	• Socio-economic survey is based on proportionate, stratified and random sampling method. • Primary data collection through questionnaire • Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. agencies		

iii. Interpretation of each environment attribute shall be enumerated and summarized as given below:

- Ambient air quality
- Ambient Noise quality
- Surface water quality
- Ground water quality
- Soil quality
- Biological Environment
- Land use
- Socio-economic environment

4. **Anticipated Environment Impacts and mitigation measures (In case of expansion, cumulative impact assessment shall be carried out)**

i. Identification of potential impacts in the form of a **matrix** for the construction and operation phase for all the environment components

Activity	Environment	Ecological	Socio-economic
Construction phase			
Operation phase			

ii. Impact on ambient air quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase
      - Details of stack emissions from the existing as well as proposed activity.
      - Assessment of ground level concentration of pollutants from the stack emission based on AQIP Modelling The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any along with wind rose map for respective period
      - Impact on ground level concentration, under normal, abnormal and emergency conditions. Measures to handle emergency situations in the event of uncontrolled release of emissions.

iii. Impact on ambient noise quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase

iv. Impact on traffic (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase

v. Impact on soil quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase

vi. Impact on land use (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase

vii. Impact on surface water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase

viii. Impact on ground water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase

b. Operation phase

ix. Impact on terrestrial and aquatic habitat (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase

x. Impact on socio-economic environment (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase

xi. Impact on occupational health and safety (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
   a. Construction phase
   b. Operation phase

5. Analysis of Alternatives (Technology & Site)

i. No project scenario
ii. Site alternative
iii. Technical and social concerns
iv. Conclusion

6. Environmental Monitoring Program

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

iv. Action plan for **post-project environment monitoring matrix**:

Activity	**Aspect**	**Monitoring Parameter**	**Location**	**Frequency**	**Responsibility**
Construction phase					
Operation phase					

7. Additional Studies

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

ii. Details of adoption/ implementation status/plan to achieve the goal of Glasgow COP26 Climate Submit with regard to enhance the non-fossil energy, use of renewable energy, minimization of net carbon emission and carbon intensity with long-term target of "net Zero" emission.

iii. Implementation status/measures adopted for avoiding the generation of single used plastic waste.

iv. In cases the project is located in Critically and Severely Polluted Areas, additional mitigation measures adopted and detailed action plan to be submitted in the EIA/EMP Report as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-23/2028-IA.III dated 5/07/2022 has to be submitted.

v. Public consultation details (Entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings).

vi. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.

vii. Summary of issues raised during public consultation along with action plan to address the same as per MoEF&CC O.M. dated 30/09/2020

S No	**Physical activity and action plan**		**Year of implementation (Budget in INR)**			**Total Expenditure (Rs. in Crores)**
	Name of the Activity	**Physical Targets**	**1st**	**2nd**	**3rd**	

viii. Risk assessment

- Methodology
- Hazard identification
- Frequency analysis
- Consequence analysis
- Risk assessment outcome

ix. Emergency response and preparedness plan

8. Project Benefits

i. Environment benefits

ii. Social infrastructure

iii. Employment and business opportunity
iv. Other tangible benefits

9. Environment Cost Benefit Analysis

i. Net present value
ii. Internal rate of return
iii. Benefit cost ratio
iv. Cost effectiveness analysis

10. Environment Management Plan (Construction and Operation phase)

i. Air quality management plan
ii. Noise quality management plan
iii. Action plan for hazardous waste management
iv. Action plan for solid waste management
v. Action plan for e-waste management.
vi. Action plan for plastic waste management.
vii. Action plan for construction and demolition waste management.
viii. Effluent management plan
ix. Storm water management plan
x. Rain water harvesting plan
xi. Plan for maximum usage of waste water/treated water in the Unit
xii. Occupational health and safety management plan
xiii. Green belt development plan: An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in 33% of total area with a tree density shall not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt shall be monitored on periodic basis to ensure that survival rate not be less than 80 %.
xiv. Socio-economic management plan
xv. Wildlife conservation plan (In case of presence of schedule I species)
xvi. Total capital cost and recurring cost/annum for environment pollution control measures shall be included.

11. Conclusion of the EIA study

12. In addition to the above, any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

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ANNEXURE-2

Standard ToRs FOR CEMENT INDUSTRY [3(b)]

1. Limestone and coal linkage documents along with the status of environment clearance of limestone and coal mines.
2. Quantum of production of coal and limestone from coal & limestone mines and the projects they cater to;
3. Present land use shall be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
4. If the raw materials used have trace elements, an environment management plan shall also be included.
5. Plan for the implementation of the recommendations made for the cement plants in the Corporate Responsibility for Environmental Protection (CREP) guidelines shall be prepared.
6. Energy consumption per ton of clinker and cement grinding
7. Provision of waste heat recovery boiler
8. Arrangement for co-processing of hazardous waste in cement plant.
9. Provision of Alternate fuels.
10. Details of Implementation of Fly Ash Management Rules
11. Emission/Effluent norms as per GSR 496 (E) dated 9/5/2016 [EPA Rules 1986].
12. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
13. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
14. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.
15. Action plan for 100 % solid waste utilization shall be submitted.
16. PM (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.

Standard ToRs FOR INTEGRATED STEEL PLANT [3(a)]

1. Iron ore/coal linkage documents along with the status of environment clearance of iron ore and coal mines.
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact.
3. For Large ISPs, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.

5. PM (PM_{10} and $PM_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of 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 specially in slag.
13. Trace metals in water
14. Details of proposed layout clearly demarcating various units within the plant.
15. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
16. Details on design and manufacturing process for all the units.
17. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
18. Details on requirement of energy and water along with its source and authorization from the concerned department. Location of water intake and outfall points (with coordinates).
19. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
20. Details on toxic content (TCLP), composition and end use of slag.
21. Fourth Hole fume extraction system shall be provided for submerged Arc Furnace (SAF). Waste heat recovery (WHR) system shall be installed to recover the sensible heat from flue gases of electric arc furnace (EAF).
22. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].
23. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
24. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
25. Action plan for 100 % solid waste utilization shall be submitted.
26. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.

Standard ToRs FOR METALLURGICAL INDUSTRY (Ferrous and Non-ferrous)[3(a)]

1. A 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
2. Plan for the implementation of the recommendations made for the proposed Unit in the Corporate Responsibility for Environmental Protection (CREP) guidelines.
3. Plan for solid wastes utilization.

4. Plan for utilization of energy in off gases (coke oven, blast furnace)
5. System of coke quenching adopted with full justification.
6. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
7. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
8. Details on toxic content using Toxicity Characteristic Leaching Procedure (TCLP), composition and end use of slag.
9. 100 % dolo char generated in the plant shall be used to generate power.
10. Fourth Hole fume extraction system shall be provided for SAF.WHR system shall be installed to recover sensible heat from flue gases of EAF. Provision for installation of jigging and briquetting plant to utilise the fines generated in the process.
11. No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.
12. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].
13. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
14. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be submitted.
15. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
16. Action plan for 100 % solid waste utilization shall be submitted.
17. PM (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.

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Standard ToRs FOR PULP AND PAPER INDUSTRY [5(i)]

1. A note on pulp washing system capable of handling wood pulp shall be included.
2. Manufacturing process details for the existing and proposed plant shall be included. Chapter on Pulping & Bleaching shall include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery shall include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln
3. Studies shall be conducted and a chapter shall be included to show that Soda pulping process can be employed for Eucalyptus/Casuarina to produce low kappa (bleachable) grade of pulp.

4. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be closed within 2 years of issue of environment clearance.
5. A commitment that no extra chlorine base bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills. Plan for reduction of water consumption.
6. Undertaking to comply with the norms stipulated in the S.O. 3187 (E) dated 7/10/2016 for the projects located in Ganga basin.
7. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
9. Action plan for 100 % waste utilization shall be submitted.

Standard ToRs FOR LEATHER/SKIN/HIDE PROCESSING INDUSTRY [4(f)]

1. Justification for engaging a particular type of process (raw hide/skin into semi finishing or finished leather, semi-finished leather to finished leather, dry finishing operations, chrome/vegetable tanning, etc.).
2. Details regarding complete leather/ skin/ hide processing including the usage of sulphides, nitrogen compounds, chromium or other tanning agents, post-tanning chemicals, biocides, etc., along with the material balance shall be provided.
3. In case of chrome tanning, details of the chrome recovery plant, management of shavings/solid waste including safe disposal.
4. Details on reuse of soak liquor / saline stream from membrane system, if applicable, to the extent possible in pickling activity after required treatment. Also, mention the salt recovery measures.
5. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
6. Action plan for 100 % waste utilization shall be submitted.

Standard ToRs FOR COKE OVEN PLANT [4(b)]

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

5. Scheme for coke oven effluent treatment plant details including scheme for meeting cyanide standard.
6. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019. Provision of CDQ in case of coke oven plant of 0.8 MTPA and above.
7. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
8. Action plan for 100 % solid waste utilization shall be submitted.
9. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

Standard ToRs FOR ASBESTOS MILLING AND ASBESTOS BASED PRODUCTS[4(c)]

1. Type of fibres used (Asbestos and others) and preference of selection from techno-environment angle should be furnished
2. As asbestos is used in several products and as the level of precautions differ from milling to usage in cement products, friction products gasketing, textiles and also differ with the process used, it is necessary to give process description and reasons for the choice for selection of process
3. Technology adopted, flow chart, process description and layout marking areas of potential environment impacts
4. National standards and codes of practice in the use of asbestos particular to the industry should be furnished
5. In case of newly introduced technology, it should include the consequences of any failure of equipment/ technology and the product on environment status.
6. In case of expansion project asbestos fibre to be measured at stack emission and work zone area, besides base line air quality.
7. In case of green field project asbestos fibre to be measured in the ambient air.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
9. Action plan for 100 % solid waste utilization shall be submitted.
10. PM (PM10 and P2.5) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations in case of expansion projects (trace elements /asbestos fibre) of PM10 to be carried over.
11. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

Standard ToRs FOR IRON ORE BENEFICIATION PLANT [2 (b)]

1. Details regarding pollution control measures to be adopted in the mineral handling area, loading and unloading areas including all transfer points shall be submitted.

2. The Project proponent shall submit action plan for conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas.
3. Treatment details regarding effluent generated from the ore beneficiation plant and the mode of transportation of tailing slurry shall be submitted.
4. Separate chapter on slime management shall be submitted.
5. Action plan for regular monitoring of ground water level and quality in and around the project area of beneficiation plant and tailing/slime pond shall be submitted by establishing a network of existing wells and constructing new piezometers.
6. Details regarding lining of the tailing/slime pond to be provided shall be submitted in order to ensure that there is no leaching from the tailing/slime pond.
7. Details regarding establishment of garland drain around the tailing/slime pond and the quantity of decanted water to be re-circulated from the tailing/slime pond shall be submitted along with complete water balance.
8. Technology to be adopted for maximum recovery of ore in order to reduce slurry discharge and to increase the life of the tailing/slime pond shall be submitted.
9. Action plan for 100 % solid waste utilization shall be submitted.
10. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

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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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ANNEXURE-3

List of the Expert Appraisal Committee (Industry-1) members participated during VC meeting

S. No.	Name	Position	30/08/2022	31/08/2022
1.	Shri. Rajive Kumar	Chairman	***Present***	***Present***
2.	Dr. Dipankar Shome	Vice Chairman	***Present***	***Present***
3.	Dr. S. Ranganathan	Member	***Present***	***Present***
4.	Dr. Ranjit Prasad	Member	***Present***	***Present***
5.	Dr. E V R Raju	Member	***Present***	***Present***
6.	Dr. S. K. Singh	Member	***Present***	***Present***
7.	Dr. Jai Krishna Pandey	Member	***Present***	***Present***
8.	Dr. Tejaswini Ananthkumar	Member	***Present***	***Present***
9.	Dr. Hemant Sahasrabuddhe	Member	***Present***	***Present***
10.	Dr. B. N. Mohapatra, DG, (Representatives of NCCBM)	Member	***Absent***	***Absent***
11.	Shri Nazimuddin, Scientist 'F' (Representative of CPCB)	Member	***Absent***	***Absent***
12.	Dr. S. Raghavan, Scientist 'D' (Representative of National Institute of Occupational Health (NIOH)	Member	***Present***	***Present***
13.	Dr. Sanjay Bist, Scientist 'E' (Representative of Indian Meteorological Department)	Member	***Absent***	***Present***
14.	Dr. R.B. Lal, Scientist E, MoEFCC	Member Secretary	***Present***	***Present***

ANNEXURE-4

Approval of EAC Chairman

Email **Additional Director MoEFCC Dr R B LAL**

Re: Approval of the Draft minutes of the 12th EAC Meeting held on August 30-31, 2022

From : chairman eac ind 1 <chairman.eac.ind.1@gmail.com> — Mon, Sep 12, 2022 09:19 AM

Subject : Re: Approval of the Draft minutes of the 12th EAC Meeting held on August 30-31, 2022

To : Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>

Cc : rajivekumar1983@gmail.com, ranganathan metals <ranganathan.metals@gmail.com>, ranjitnitj@gmail.com, rajuevr60@gmail.com, sksinghdce@gmail.com, dshome61@gmail.com, tejaswini acf <tejaswini.acf@gmail.com>, sshemant 801 <sshemant_801@rediffmail.com>, NCCBM DIRECTOR GENERAL <dg@ncbindia.com>, Nazimuddin <nazim.cpcb@nic.in>, Raghavan S <raghuharihar@gov.in>, raghuharihar@yahoo.co.in, Sanjay Bist <sanjay.bist@imd.gov.in>, drjkpandey eac industry1 <drjkpandey.eac.industry1@gmail.com>

Dear Dr Lal,

The draft minutes are approved. Please do the needful.
Best wishes

Rajive kumar
Chairman EAS Industry-1

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