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

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Dated:27.01.2023

Date of Zero Draft MoM sent to EAC: 25.01.2023
Approval by Chairman: 27.01.2023
Uploading on PARIVESH: 27.01.2023

MINUTES OF THE 21ST EXPERT APPRAISAL COMMITTEE (INDUSTRY-1 SECTOR) MEETING HELD ON JANUARY 16-17, 2023

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

Time: **10:30 AM onwards**

DAY-1: JANUARY 16, 2023 [MONDAY]

(i) Opening Remarks by the Chairman, EAC

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

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

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

Dr. R. B. Lal, Scientist 'F' & 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 20th Meeting of the EAC (Industry-1 Sector) held during December 29, 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 **20th Meeting of the EAC (Industry-1 Sector) held during December 29, 2022** conducted through Video Conferencing, and noted that no request has been received for modifications/factual correction, in the minutes of the 20th 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. 21.1

21.1 Installation of Induction Furnace & Rolling Mill for production of Ingots, Billets 5,00,000 TPA and TMT Bars & Long product: 5,00,000 TPA respectively (In addition to Existing 3,24,000 TPA Sponge Iron Plant, 0.216 MTPA Coal Washery & 25 MW Power Plant) of M/s Lloyds Metals And Energy Limited, located at Plot A-1 and A-2, MIDC Area, Ghugus, Chandrapur, Maharashtra – Consideration of Environmental Clearance.

[Proposal No.: IA/MH/IND1/404101/2022; File No. IA-J-11011/243/2019-IA-II(IND-I)]
[Consultant: Pollution and Ecology Control Services; Valid upto 10.04.2023]

21.1.1 M/s. Lloyds Metals & Energy Limited has made an online application vide proposal no. IA/MH/IND1/404101/2022 dated 19th December 2022 along with copy of EIA/EMP report, Forms (Part A, B and C) and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

21.1.2 Name of the EIA consultant: M/s Pollution and Ecology Control Services, Nagpur [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/23/2634; valid upto 10.04.2023, as on January 6, 2023].

Details submitted by Project proponent

21.1.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord
24.06.2019	13th Meeting of Re-constituted EAC (Industry-1) held on 27th to 29th November, 2019	Terms of Reference	10th February 2020

21.1.4 The project of M/s Lloyds Metals & Energy Limited located in Plot No. A-1 and A-2, MIDC Area, Ghugus, Chandrapur, Maharashtra is for installation of Induction Furnace & Rolling Mill for production of Ingots, Billets 5,00,000 TPA and TMT Bars & Long product: 5,00,000 TPA (In addition to Existing 3, 24,000 TPA Sponge Iron Plant, 0.216MTPA OR 150 TPH Coal Washery & 25 MW Power Plant). Further, company has decided to drop the installation of the 2 X 9 MVA Submerged Arc Furnace permitted for production of 25,000 TPA Ferro alloys in the ToR dated 10.02.2020.

21.1.5 Environmental Site Settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>93.52 ha [MIDC Land]</td><td>Land use: Industrial</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Total land is in possession.
Additional 8.56 ha adjacent private land was considered at the time of ToR. Now, the proposed project of Induction furnace and rolling mill will be installed in existing plant premises. No Additional land is required.</td><td></td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td><u>Project site:</u> None
<u>Study Area:</u><table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Ghugus</td><td>0.5 Km</td><td>N</td></tr></table></td><td>No R&R involved.</td></tr>
<tr><td>iv.</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>19°56'30.56"N</td><td>79° 6'56.83"E</td></tr><tr><td>B</td><td>19°56'30.22"N</td><td>79° 7'1.57 "E</td></tr><tr><td>C</td><td>19°56'14.10"N</td><td>79° 7'15.52"E</td></tr><tr><td>D</td><td>19°55'28.81"N</td><td>79° 7'20.75"E</td></tr><tr><td>E</td><td>19°55'13.75"N</td><td>79° 7'4.87"E</td></tr><tr><td>F</td><td>19°55'14.36"N</td><td>79° 6'57.21"E</td></tr></table></td><td>-</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>189 m above mean sea level</td><td>-</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No involvement of Forest Land</td><td>-</td></tr>
<tr><td>vii.</td><td>Water body exists within the project site as well as study area</td><td><u>Project site:</u> There are two seasonal drains passing through project site
<u>Study area</u><table><tr><th>Water body</th><th>Distance</th><th>Direction</th></tr><tr><td>Anuradha Lake</td><td>620 m</td><td>W</td></tr><tr><td>Wardha River</td><td>2.5 Km</td><td>SW</td></tr><tr><td>Nirguda Nala</td><td>3.0 Km</td><td>SSW</td></tr><tr><td>Penganga River</td><td>5.0 Km</td><td>SE</td></tr><tr><td>Sarai Nala</td><td>6.5 Km</td><td>NE</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.

List of Reserved and protected forests:
Pardi Reserved Forest, 6.0 Km (SW)</td><td></td></tr>
<tr><td>ix.</td><td>CPA/SPA</td><td>The Project site is located in Chandrapur District which was declared as Critically</td><td></td></tr>
</table>

		Polluted Area vide NGT order dated 10.07.2019 and lifting of abeyance of Ministry's OM is published on 5th July 2022. PP proposes to comply all the conditions given in MOEF & CC issued letter No-Q-16017/38/2018-CPA dated 24th October 2019. The compliance of the conditions given in MOEF & CC issued letter No-Q-16017/38/2018-CPA dated 24th October 2019 is submitted in EIA/EMP report.	

21.1.6 The existing projects for sponge iron manufacturing plant was accorded the NOC vide lr.no. Env (NOC)2005/747/CR.97/D.I, dated 28th December 2005, for coal washery environmental clearance was accorded vide lr.no. J-11015/272/2007-IA.II (M) dated 9th April 2008 and for waste Heat Recovery Based Captive Power Plant of 25 MW capacity environmental clearance was accorded vide lr.no. J-13012/123/07-IA-II dated 12th October 2009. Consent to Operate was accorded by Maharashtra State pollution Control Board vide lr. no. Format1.0/CAC/UAN No. MPCBCONSENT- 0000123174/CO/2203001536 validity of CTO is up to 31.12.2023.

21.1.7 Implementation status of the existing EC

Sr. No.	Facilities	Units	As per NOC/EC dated 28th December 2005, 9th April 2008 & 12th October, 2009	Implementation status	Production as per CTO
1.	Sponge Iron plant	TPA	3,24,000 TPA	Installed & in operation	27000 TPM
2.	Coal Washery	MTPA	0.216 OR 150 TPH Capacity	Installed & in operation	Washed Coal 4,72,500 TPA
3.	Power Plant [WHRB+AFBC (only for standby)]	MW	25 [WHRB+AFBC (only for standby)]	Installed & in operation	25 MW

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

S. No.	Plant Equipment/ Facility	As per EC dated 28th December 2005, 9th April 2008 & 12th October 2009		Proposed capacity as part of Expansion capacity		Total capacity After expansion capacity	
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
1	Sponge Iron plant	1 x 500 TPD & 4 x 100 TPD	3,24,000 TPA	-	-	1 x 500 TPD & 4 x 100 TPD	3,24,000 TPA
2	Coal Washery	0.216 MTPA OR 150 TPH	0.216 MTPA OR 150 TPH	-	-	0.216 MTPA OR 150 TPH	0.216 MTPA OR 150 TPH
3	Power Plant	25 MW	25 MW	-	-	25 MW	25 MW
4	Induction Furnace	-	-	6 x 30 T	5,00,000 TPA	6 x 30 T	5,00,000 TPA
5	Rolling Mill	-	-	5,00,000 TPA	5,00,000 TPA	5,00,000 TPA	5,00,000 TPA

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

Sr. No.	Name of the Product	Raw Material	Requirement in TPA	Source and Distance	Mode of Transportation
Existing Plant					
For Sponge Iron Plant					
1	Iron Ore	Iron Ore	507384	Own mines located at Gadchiroli & open market	Road 180 km
2	Coal	Coal	435456	WCL Mines	Road 5-50 km
3	Dolomite	Dolomite	46656	Yavatmal & open market	Road 50 km
For Coal Washery					
1	Coal	Coal	738215	WCL Mines	Road 5-50 km
Proposed Plant					
1	M. S. Billets	M.S. Scrap/Tail cutting	1,44,000	Local Market / Inhouse Rolling Mill	By Road 200-500 km/ Truck
		Sponge Iron	3,96,000	3,24,000 TPA from in-house i.e. Ghugus plant and remaining 72000 TPA will be from proposed plant at Konsari, District Gadchiroli	Conveyor/Road 150-200 km
		Silico Manganese as additives	5000	Local Market	By Road 30 km
2	Hot Rolled long products/ TMT Bars	Molten M.S. Billets for hot charging	5,00,000	In-house	Direct Charging

21.1.10 The existing water requirement is 2674 m^3/day, which will be sourced from Wardha River. The water requirement for the proposed project is estimated as 1627 m^3/day, will be sourced from Wardha River and an agreement has been signed with Irrigation Department, Chandrapur for supply of water.

21.1.11 Total Power required for proposed expansion project is 30 MW which will be sourced from own captive power plant and MSEDCL.

21.1.12 Baseline Environmental Studies:

<table>
<tr><th>Period</th><th>15/09/2020 to 15/12/2020</th></tr>
<tr><td>AAQ parameters at 8 Locations (min and max)</td><td>• PM_{10}: 40.9 to 79.4 µg/m^3
• $PM_{2.5}$: 24.0 to 43.2 µg/m^3
• SO_2: 10.7 to 35.6 µg/m^3
• NOx: 17.5 to 46.3 µg/m^3</td></tr>
<tr><td>Incremental GLC level</td><td>• PM_{10} = 1.03 µg/m^3 (Level at 0.5 km in SE Direction)
• SO_2 = 8.1 µg/m^3 (Level at 0.8 km in SE Direction)
• NOx = 3.12 µg/m^3 (Level at 0.8 km in SE Direction)</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>pH: 7.47 to 7.75, Total Hardness: 240 to 1022 mg/l, Chlorides: 9.9 to 332.5 mg/l, Fluoride: 0.684 to 1.19 mg/l. Heavy metals: ND</td></tr>
<tr><td>Surface water quality at 8 locations</td><td>pH: 7.01 to 7.54, DO: 6.4 to 7.1 mg/l, BOD: <3mg/l & COD: <5mg/l.</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>35.6 to 54.8 for the day time and 34.5 to 50.2 for the Night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>• Traffic study has been conducted at State Highway which is adjacent from the plant site.
• Transportation of raw material, fuel & finished product will be done by road.
• Existing PCU is 1162 PCU/day on MIDC road 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>Proposed V/C Ratio</th><th>LOS</th></tr>
<tr><td>MIDC road</td><td>1162</td><td>5000</td><td>0.23</td><td>A-Very Good</td></tr>
</table>
* Note: Capacity as per IRC-73:1980 Guide line for capacity for roads.

Conclusion: The level of service will be A-Very Good after including additional traffic due to proposed project</td></tr>
<tr><td>Flora and fauna</td><td>No schedule I animals are found in the study area.</td></tr>
</table>

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

Solid Waste	Quantity (TPA)	Mitigation Measures
Existing		
A. Solid Waste		
Char	48000	Sold to local entrepreneurs for making coal briquettes
Bottom Ash	9855	Brick Manufacturing and Land Filling
Accretion	3650	Land Filling
Fly Ash	39785	Low land filling and brick manufacturing
Dust from ESP	7300	Brick manufacturing
Washery reject	91250	Sold to third party
B. Hazardous Waste		
Used/Spent oil	3.65 Kl/ Annum	Sold to authorized vendors
Proposed		

Solid Waste	Quantity (TPA)	Mitigation Measures
A. Solid Waste		
Slag	25,000	A slag crusher will be installed to crush slag. Iron particles will be separated by using magnetic separator and will be reused in Induction Furnace. Initially Slag Residual slag will be used for levelling of plot and hardening of working area & construction of plant internal roads. In future possibilities will be explored to use slag for construction of internal village roads.
Tail cutting	15,000	100% reuse in induction furnace
B. Hazardous Waste		
There is no generation of hazardous waste except used oil from machineries and transformers. This waste oil will be used for secondary purpose and will be sold to authorized vendors / recyclers		

21.1.14 Public Consultation:

Details of advertisement given	19th June 2021
Date of public consultation	30th June 2021
Venue	Project Site (Plot A-1 and A-2, MIDC Area, Ghugus, Chandrapur, Maharashtra)
Presiding Officer	Additional District Magistrate
Major issues raised	• Pollution Control • Employment • CSR activities

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

Sr. No.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
A) Based on Need Basis						
1.	Training will be provided to the local youths for skill development and then providing employment to them in the company.	Physical Nos and Villages	Training to the 30 unemployed youth of usgaon, ghughus, Shengaon, Nakoda, Mhatardevi and Dhanora	Training to the 30 unemployed youth from usgaon, ghughus, Belur, Wadha, Mahatardevi and Anturla	Training to the 15 unemployed youth from Pandharkawada, pipri and Ghughus	30
		Budget in Lakhs Rs.	10	10	10	
2.	**Community and Infrastructure Development**					
	Water supply to existing toilets	Physical Nos and Villages	Water supply in the already constructed toilets at	Water supply in the already constructed toilets at	Water supply in the already constructed toilets at village	30

Sr. 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)	
			village Ghugus, Usgaon, Dhanora and Pipri	village of Mahatardevi and Anturla	of Pandharkawada, Pipri	
		Budget in Lakhs Rs.	10	10	10	
	LED solar light will be provided in the street with solar panel	Physical Nos and Villages	20 nos in Ghugus and Usgaon	20 nos in Dhanora and Pipri	20 nos in Chandur and Matholi	30
		Budget in Lakhs Rs.	10	10	10	
	Provision of Drinking water Facility	Physical Nos and Villages	Construction of borewell in the village Ghugus, Usgaon, Dhanora and Pipri	Construction of borewell at village of Mahatardevi and Anturla	Construction of borewell at village of Pandharkawada, pipri	
		Budget in Lakhs	15	15	15	45
	Provision of Ambulance & Funeral vehicle	Physical Nos and Villages	1 No. of Ambulance Vehicle each in Mhatardevi and Usgaon	1 No. of Ambulance Vehicle each at Nakoda and Shengaon	1 No. of Funeral Vehicle each at Mhatardevi and Usgaon	110
		Budget in Lakhs Rs.	40	40	30	
3. Education and Scholarship Programme						
a.	Orientation programmes to increase involvement of schools, to ensure academic development of Students & Teachers. Students Participation Programme to enhance teachers	Physical Nos and Villages	5 schools from village Usgaon and ghugus	5 schools from village Dhanora and Belsan	5 schools from village Shengaon and Anturla	150

Sr. 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)	
	capacity to ensure quality & education.					
b.	Career guidance programme to create awareness about available career options & provide guidance. Participation in secondary education forums to address key issues that affect education.	Physical Nos and Villages	Top 5 students on merit basis from village Ghugus and Shengaon Village.	Top 5 students on merit basis from village Wadha and Chandur Village.	Top 5 students on merit basis from Village Dhanora and Pipri Village.	
c.	Improvement of school infrastructure	Physical Nos and Villages	Janta school of Ghuggus	Priyadarshani Girls School, Ghuggus	Saraswati Vidyalaya, Mhatardevi	
	Budget in Lakhs Rs.		60	50	40	
Total (A)						**395**
B) BASED ON PUBLIC HEARING /CONSULTATION						
1.	Health camps in the nearby villages	Villages	Health camps will be organised in Ghugus, Usgaon and Dhanora Village.	Health camps will be organised in Mahtardevi, Wadha and Chandur Village.	Health camps will be organized in Ghugus, Usgaon and Dhanora Village.	60
		Budget in Lakhs Rs.	20	20	20	
2.	Improvement in the Facilities in primary health center	Villages	Provision of various medical kits to primary health centers at Ghugus village.	Provision of various medical kit primary health centers at Shengaon village.	Provision of various medical kits to primary health centers at Usgaon village.	30
		Budget in Lakhs Rs.	10	10	10	
3.	Plantation	Physical Nos and Villages	Avenue plantation in nearby villages :Shengaon village, Usgaon and Dhanora Village.			45

Sr. No.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
		Budget in Lakhs Rs.	15	15	15	
4.	Rain water harvesting System	Physical Nos and Villages	6 nos. of RWH structures in Govt. higher secondary school at Shengaon, Pipri village.	6 nos. of RWH structures in Usgaon Mahatardevi and Anturla Village and other villages	6 nos. of RWH structures in Ghugus Dhanora Village	60
		Budget in Lakhs Rs.	20	20	20	
Total (B)						**195**
Total (A + B)						**590**

21.1.15 The capital cost of the proposed expansion project is Rs. 660 Crores and the capital cost for environmental protection measures is proposed as Rs. 12.2 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 1.003 Crores. The total employment generation from the project is 600 nos. of people. The details of cost for environmental protection measures is as follows:

S.N.	Particulars	Capital Cost (in Crores Rs.)	Operation and Maintenance (in Crores Rs./Annum)
Proposed EMP cost for Air Pollution Control			
1.	Bag filter with stack for SMS (2 No. with Teflon Bags) & Dust Collector and fume hood (dust extraction system)	5	0.5
Proposed EMP cost for Water Pollution Control			
2.	Settling Tank for Industrial Water Treatment	0.25	0.02
3.	STP for Domestic Water Treatment	0.40	0.01
4.	Wheel washing System (1 No.)	0.05	0.003
5.	Dust Sweeping Machine and Water Sprinkler	0.5	0.05
6.	Rain Water Harvesting	5.0	0.15
7.	Environmental Monitoring (CAAQMS and online stack monitoring system)	0.5	0.2
8.	Solid Waste Management	0.4	0.03
9.	Green Belt Development	0.1	0.04
10.	Funds for social welfare as per OM dated 30.09.2020	5.9	2% of net profit per year as per Ministry of Company Act
	Total	**18.1**	**1.003**

21.1.16 Existing green belt has been developed in 47.7 ha. area which is about 51% of the total project area of 93.52 ha., 2,34,650 nos. of trees are planted and 1,05,000 nos. survived till date. Further gap filling will be done. About 15000 nos. of trees will be planted. A 10m wide

greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare.

21.1.17 It is submitted that there is no violation under EIA notification 2006, however there is Lokayukta Maharashtra State Complaint No.: LA/COM/3729/2021 (T-6) dated 10.11.2021. A complaint was filed by the Complainant with the Hon'ble Lokayukta regarding the action taken by the Hon'ble NGT Bench Pune in 2014 after passing the final order for banning the sponge iron factories. MPCB vide letter O.No. MPC/ROC/579/2022 dated 11.11.2022 has stated that *"the office of M.P.C.B. Chandrapur visited the industry on 01/08/2022. As per the error during the inspection, raised a show cause notice was issued to the industry dated 04/08/2022. Also Proposed directions were also issued vide letter dated 13/09/2022 by the board. On the said directive, the industry submitted its compliance report to this office vide letter dated 14/09/2022. This office visited to the industry on dtd. 10/11/2022 to verify the compliance of the industry."* The said letter concludes that "it is observed that the industry has complied with the earlier directives issued by the Board dated 23/04/2015, the directives regarding restart of industries issued on 22/02/2018 and the proposed directives issued on 13/09/2022. Complied to a large extent."

Certified Compliance report from Integrated Regional office MoEFCC

21.1.18 The Status of compliance of earlier EC was obtained from Regional Office, vide letter dated 10.11.2021 in the name of M/s. Lloyds Metals & Energy Limited. ATR was submitted by the PP vide letter No. NIL dated 27.10.2022. IRO has reviewed the ATR and has issued a closure report no. 3-36/2008 (ENV)/10724, 3-36/2008 (ENV)/10725 and 3-36/2008 (ENV)/10726 dated 7th December 2022 according to which PP has complied with the partially complied conditions.

Deliberations by the Committee

21.1.19 The Committee noted the following:

1. The proposed project falls in the Critically Polluted Area of Chandrapur as notified by Central Pollution Control Board (CPCB). The EAC deliberated on the compliance of the conditions as per Ministry's guideline dated 24th October 2019 and found it unsatisfactory. The EAC is of the opinion that robust and quantified mitigation plan shall be prepared.
2. The PP/Consultant presented the drone video of the project site and the EAC is of the opinion that housekeeping of the plant area needs to be improved and detailed action plan needs to be submitted.
3. Total land leased by MIDC to M/s Lloyds Metals & Energy Limited (LMEL) is 93.52 ha in which plot no. A-1 is 4.00 ha & A-2 is 89.52 ha. No Additional land is required. The EAC is of the view that details of land involved in the project [Total area of the land; Type of land; Details of possession of land in the name of PP; Copy of proof of land with

area of the land; Conversion of land for industrial purpose from the State Government] needs to be submitted.

4. The EAC noted that the water requirement has been increased from 260 KLD to 1627 KLD, power requirement reduced from 35 MW to 30 MW and employment generation from 750 to 600 in comparison to the granted ToR dated 10.02.2020 for the instant proposal. However, PP has not pointed out the same during the appraisal of the project. The EAC is of the view that such facts shall be specifically stated in the EIA/EMP Report and also presented during the appraisal of the project. The EAC also advised PP/Consultant to present such changes in a tabular form for each parameter with the quantity defined in ToR, PH and EIA/EMP Report.

5. The EAC deliberated on water balance diagram and is of the view that industry shall revisit on water quantity demarcated to greenbelt development, evaporation losses and other operations, and submit the revised water balance.

6. The EAC noted that existing green belt has been developed in 47.7 ha. area which is about 51% of the total project area of 93.52 ha., 2,34,650 nos. of trees are planted and 1,05,000 nos. survived till date which less than CPCB norms of 2500 saplings/ha. The EAC opined that gap filling shall be undertaken and maximum plantation shall be completed within 1st year. Also, Greening and Paving shall be implemented in the plant area and road side to arrest soil erosion and dust pollution from exposed soil surface. PP shall submit a revised greenbelt development plan alongwith an undertaking in this regard.

7. Two drains are flowing within the project site. The EAC deliberated on the intake and outflow of drain water and is of the opinion that a periodic monitoring shall be undertaken in this regard. Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be submitted.

8. Anuradha Lake (620 m, W), Wardha River (2.5 Km, SW), Nirguda Nala (3.0 Km, SSW), Penganga River (5.0 Km, SE) and Sarai Nala (6.5 Km, NE) are flowing within 10 Km. radius of the plant site. The EAC is of the opinion that 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 submitted.

9. The EAC deliberated on the raw material requirement and observed that molten M.S. Billets for hot charging will be used for producing Hot Rolled long products/ TMT Bars. The EAC is of the view that 100% of billets shall be rolled directly in hot stage. Natural gas shall be used as a fuel. PP shall submit an undertaking in this regard.

10. The nearest habitation to plant is Ghugus village located at 0.5 km away from the project site boundary in North direction. Project Proponent shall submit environmental safeguard measures that will be undertaken to minimise the impact on the habitation of the locals.

11. PP shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, shall be prepared to develop them into model villages. PP shall submit details of the villages to be adopted.

12. The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and opined that action plan submitted to address the PH issues and socio-economic development of the nearby villages shall be revised and submitted as per Ministry's OM dated 30.09.2020.

13. The EAC is of the opinion that PP shall also submit the status of implementation of the action plan in order to address the issues raised during the previous PH.

14. The Committee deliberated on the baseline data and observed that submitted atmospheric inversion data needs to be reverified. Also the maximum value of total hardness has been found to be beyond the prescribed standard. PP shall submit justification along with mitigation measures.

15. The Committee deliberated on the incremental GLC due to the proposed project and observed that incremental GLC for CO has not been submitted in the brief. In this regard, the EAC is of the opinion complete information in this regard shall be submitted.

16. The EAC noted that there is Lokayukta Maharashtra State Complaint No.: LA/COM/3729/2021 (T-6) dated 10.11.2021 filed regarding the action taken by the Hon'ble NGT Bench Pune in 2014 after passing the final order for banning the sponge iron factories. MPCB vide letter O.No. MPC/ROC/579/2022 dated 11.11.2022 has stated that *"the office of M.P.C.B. Chandrapur visited the industry on 01/08/2022. As per the error during the inspection, raised a show cause notice was issued to the industry dated 04/08/2022. Also Proposed directions were also issued vide letter dated 13/09/2022 by the board. On the said directive, the industry submitted its compliance report to this office vide letter dated 14/09/2022. This office visited to the industry on dtd. 10/11/2022 to verify the compliance of the industry."* The EAC is of the opinion that PP/Consultant shall submit the summary of the case with the latest updates and requisite documents. The EAC also advised PP/Consultant to give the details of details of other case, if any against the instant project.

17. Representations have been received through email dated 13.01.2023 and 16.01.2023 requesting for stay in the grant of Environment Clearance on multiple issues raised pertaining to the said project. The EAC is of the opinion that the project proponent shall submit the pointwise clarification on the issues raised in the representation dated 13.01.2023 and 16.01.2023. The EAC advised the Ministry to forward the representation to project proponent for their clarification. In this context, representation has been forwarded to PP.

18. The EAC noted that the Date of Advertisement is wrongly given as 19th June, 2021 in the brief, however the actual date is 19th April, 2021. The EAC warned the PP/Consultant to be careful while submitting the information.

19. In view of above facts, EAC advised PP to revise the EIA/EMP report covering all the desired information for further consideration.

20. The PP/Consultant agreed to the suggestions of EAC and requested EAC to allow reappear after the revision of the application incorporating the desired information.

Recommendations of the Committee:

21.1.20 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** to address the shortcomings enumerated at para no. 21.1.19 above. The proposal may be considered after submission of the requisite information.

***

Agenda No. 21.2

21.2 Expansion proposal for enhancement of production of pig Iron from 15,000 to 30,000 TPA, M.S. Billet from 15,000 TPA to 3,00,000 TPA by installation of eight Nos. Of Induction Furnace and Production of TMT Bar 1,80,000 TPA by installation of hot rolling mill and installation of 60,000 TPA slag grinding Unit for M/s Radha Casting & Metaliks Pvt. Limited, located at Village: Paiki, P.O.: Marar, District: Ramgarh, Jharkhand– Consideration of Environmental Clearance.

[Proposal No. IA/JH/IND/262957/2019; File No. J-11011/507/2009-IA-II(I)
[Consultant: Kalyani Laboratories Private Limited; Valid upto: 02.03.2023]

21.2.1 M/s Radha Casting & Metaliks Pvt. Limited has made an online application vide proposal no. IA/JH/IND/262957/2019 dated 21.12.2022 along with copy of EIA/EMP report, Forms (Part A, B and C) and certified compliance report seeking Environmental Clearance under EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

21.2.2 Name of the EIA consultant: M/s Kalyani Laboratories Private Limited [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA0149; valid upto 02.03.2023, as on January 6, 2023].

21.2.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
11.11.2019	13th meeting of EAC held on 27-29th November, 2019	Terms of Reference	14.01.2020	13.01.2024

Details submitted by the project proponent

21.2.4 The project of M/s Radha Casting and Metalik (P) Ltd. located in Paiki Village, Marar Tehsil, Ramgarh District, Jharkhand is for enhancement in production of Pig Iron from 15,000 to 30,000 TPA, M S Billet From 15,000 TPA To 3,00,000 TPA by Installation of Eight Nos. of Induction Furnace and production of TMT Bar 1,80,000 TPA by installation of Hot Rolling Mill and Installation of 60,000 TPA Slag Grinding Unit.

21.2.5 Environmental site settings

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td>1</td><td>Total land</td><td>8.09 ha [Private]</td><td>-</td></tr>
<tr><td>2</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Land already acquired by M/s Radha Casting and Metalik (P) Ltd. The expansion will be within the existing plant premises. No additional land acquired for the expansion.</td><td>No additional land acquired for the expansion.</td></tr>
<tr><td>3</td><td>Existence of habitation & involvement of R&R, if any.</td><td><u>Project Site</u>: Nil

<u>Study Area</u>:<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Paiki</td><td>1 Km</td><td>NNE</td></tr><tr><td>Rauta</td><td>1 km</td><td>NNW</td></tr></table></td><td>No R&R is involved</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>23°38'54.26"N</td><td>85°31'56.91"E</td></tr><tr><td>B</td><td>23°38'58.31"N</td><td>85°31'58.56"E</td></tr><tr><td>C</td><td>23°38'58.06"N</td><td>85°32'0.28"E</td></tr><tr><td>D</td><td>23°39'2.18"N</td><td>85°32'1.80"E</td></tr><tr><td>E</td><td>23°39'2.78"N</td><td>85°32'2.44"E</td></tr><tr><td>F</td><td>23°39'3.55"N</td><td>85°32'2.24"E</td></tr><tr><td>G</td><td>23°39'2.83"N</td><td>85°32'10.44"E</td></tr><tr><td>H</td><td>23°38'57.38"N</td><td>85°32'7.55"E</td></tr><tr><td>I</td><td>23°38'55.60"N</td><td>85°32'8.78"E</td></tr><tr><td>J</td><td>23°38'53.07"N</td><td>85°32'9.23"E</td></tr></table></td><td>-</td></tr>
<tr><td>5</td><td>Elevation of the project site</td><td>322 to 326 M above mean sea level</td><td></td></tr>
<tr><td>6</td><td>Involvement of Forest land if any.</td><td>No forest land involved within the project.</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><u>Project Site</u>: Nil

<u>Study Area:</u><table><tr><th>Water body</th><th>Distance & Direction</th></tr><tr><td>Damodar River</td><td>50 m, S</td></tr><tr><td>Routa Nala</td><td>200 m, W</td></tr><tr><td>Meramgarh Nala</td><td>2.2 Km, E</td></tr></table></td><td>As per the letter received from water resource department, Asansol, vide letter no. DD/ASN/MET/2022/400-02 dated 25.11.2022 it has been informed that the desired HFL of Damodar River at Ramgarh site, Jharkhand is 316.68 m on month of September 1976 at Lat 23°38’30” and Long. 85°30’47”. This location is located at 2 Km from the project site. As per the present study, the elevation of Damodar river near the project site is 308mRL and the elevation of the plant site is 322 mRL to 326 mRL. The altitude</td></tr>
</table>

S. No.	Particulars	Details submitted by the PP		Remarks
				difference between the river bed and plant site is approximately 14m to 18m.
8	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil		-
9	CPA/SPA	The project is falling under 'Severely Polluted Area (SPA)' as per the order of Hon'ble NGT 19.08.2019 in the O.A No. 1038/2018 having CEPI value 66.75.		-

21.2.6 The existing project was accorded environmental clearance vide lr.no. File no: J-11011/507/2009- IA- II(I) dated 23.12.2009. Consent to Operate for the existing unit was accorded by Jharkhand State Pollution Control Board vide lr. No. JSPCB/HO/RNC/CTO-11859313/2022/279 dated 13.03.2022. The validity of CTO is up to 31.12.2022.

21.2.7 Implementation status of the existing EC:

S. No.	Facilities	Units	As per EC dated 23.12.2009	Implementation Status as on 06.01.2023	Production as per CTO
01	Mini Blast Furnace (MBF)	1x23 m^3	15,000 TPA	Installed	15,000 TPA
02	Induction Furnace (IF)	2 x6 T	15,000 TPA	Installed	15,000 TPA
03	Submerged Arc Furnace	--	9,000 TPA	Not established	--
04	Cement Grinding Unit	--	18,000 TPA	Not established	--
05	Rolling Mill	--	18,000 TPA	Not established	--

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

Sl. No.	Plant Equipment/ Facility	Existing facilities as per EC dated 23.12.2009								ProposedUnits		Final (Existing +Proposed)		Remarks
		Total(A+B)		Implemented (A)		Un-implemented (B)		As perCTO						
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	
1.	Mini Blast Furnace (MBF)	1x23m^3	15000 TPA	1x23m^3	15000 TPA	--	--	1x23 m^3	15000 TPA	1x23m^3	15000 TPA	2 x 23 m^3	30000 TPA	Existing
2.	Induction Furnace (IF)	2x 6T	15000 TPA	2x 6T	15000 TPA	--	--	2x6T	14280 TPA	(2x 20 T +6x8T)	285000 TPA	2x 6T + 2x 20 T +6x8T)	3,00,000 TPA	Existing

3.	Submerged Arc Furnace	--	9,000 TPA	--	--	--	9,000 TPA			--	--	--	--	Withdrawn
4.	Cement Grinding Unit	--	18,000 TPA	--	--	--	18,000 TPA			--	--	--	--	Withdrawn
5.	Rolling Mill	--	18,000 TPA	--	--	--	18,000 TPA			1x600 TPD	1,80,000 TPA	1x600 TPD	1,80,000 TPA	
6.	Slag Grinding Unit	--	--	--	--	--	--	--	--	--	60000 TPA	--	60000 TPA	

21.2.9 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 required per annum			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Expansion	Total			
1.	Sponge Iron	15,000	2,85,000	3,00,000	Nearby Sponge Iron plant	100 Km	Trucks
2.	Pig Iron/M S Scrap	3,000	57,000	60,000	Captive/ Tata Steel, Jamshedpur	100 Km	Trucks
3.	Hot metal	--	1,89,000	1,89,000	Captive Source	--	--
4.	Iron ore Fines and Lumps	21315	21315	42630	OMC mines (Joda/ Barbil)	250 Km	Trucks
5.	Coke	9150	9150	18300	Open market	100 Km	Trucks
6.	Coal Fines	750	750	1500	Open market	100 Km	Trucks
7.	Dolomite	2100	2100	4200	Open market	100 Km	Trucks
8.	Quartz	780	780	1560	Open market	100 Km	Trucks

21.2.10 The existing water requirement is 24 m^3/day, which is obtained from Damodar Valley Corporation and permission for the same has been obtained from DVC vides letter no Nil dated 20.06.2022. The water requirement for the proposed project is estimated as 667m^3/day, out of which 657 m^3/day of fresh water requirement will be obtained from the Damodar Valley Corporation and the remaining requirement of 10 m^3/day will be met from the ground water. The permission for drawl of surface water is obtained from DVC Vide Lr. No. Nil dated 20.06.2022. The permission for drawl of ground water is obtained from CGWB vide NOC no. CGWA/NOC/IND/ORIG/2020/9171 dated 31.10.2020.

21.2.11 The existing power requirement of 5 MW is obtained from DVC. The power requirement for the proposed project is estimated as 22 MW, out of which 22 MW will be obtained from the DVC.

21.2.12 Baseline Environmental Studies

<table>
<tr><td>Period</td><td>December 2019 to February 2020</td></tr>
<tr><td>AAQ parameters at 8 Locations (min and max)</td><td>• $PM_{2.5}$ = 36.2 to 56.1 µg/m^3
• PM_{10} = 56.0 to 84.2 µg/m^3
• SO_2 = 7.1 to 16.2 µg/m^3
• NOx = 14.3 to 24.2 µg/m^3
• CO = 230 to 650 µg/m^3</td></tr>
<tr><td>Incremental GLC level</td><td>• PM_{10} = 1.09 µg/m^3 (Level at 0.8 km in SEE Direction)
• SO_2 = 0.36 µg/m^3 (Level at 0.8 km in SEE Direction)
• NOx = 0.27 µg/m^3 (Level at 0.8 km in SEE Direction)</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>• pH: 7.14 to 7.51
• Total Hardness: 172 to 192 mg/l,
• Chlorides: 14 to 50 mg/l,
• Fluoride: 0.45 to 0.90 mg/l.
• Heavy metals: BDL</td></tr>
<tr><td>Surface water quality at 8 locations</td><td>• pH: 7.0 to 7.7
• DO: 5.9 to 6.9 mg/l
• BOD: 2.0 to 3.7 mg/l.
• COD from 6.6 to 13.3 mg/l</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>47.7 to 68.0 for the day time and 35.6 to 55.5 for the Night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>• Traffic study has been conducted at NH 33 which is approximately 2.0 (distance) from the plantsite.
• Transportation of raw material, fuel & finished product will be done 100% by road.
• Existing PCU is 1214 PCU/hr on NH 33 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>NH 33</td><td>1214</td><td>3600</td><td>0.33</td><td>B</td></tr>
</table>
• PCU load after proposed project will be 1214 Existing) + 48 (Additional) PCU/hr and level of service (LOS) will be:
<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>NH 33</td><td>1262</td><td>3600</td><td>0.35</td><td>B</td></tr>
</table>
* Note: Capacity as per IRC 106 guide line for capacity for roads.
Conclusion: The level of service will be B after including additional traffic due to proposed project.</td></tr>
<tr><td>Flora and Fauna</td><td>No Schedule I fauna and endangered flora found in the study area.</td></tr>
</table>

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

S. No.	Type of Waste	Source	Quantity generated (TPA)	Mode of Treatment/ Disposal	Remarks
1	BF Slag	MBF	9000	After granulating sold	Sold to Local

				to Cement grinding unit	Cement manufacturers
2	Bag Filter Dust	MBF	1500	Saleable material	
3	End Cuts	Rolling Mill	9000	Reused in SMS	--
4	Bag filter dust	IF	18000	Saleable material	--
5	Non-Magnetic slag	IF	27000	Utilized as construction material	Grounded slag Sold as construction material (Maa Tara Construction)
6	Magnetic Slag	IF	3000	Reused in SMS	

21.2.14 Public Consultation:

Details of advertisement given	The Hindustan Times and Prabhat Khabar 13.11.2020
Date of public consultation	16.12.2020
Venue	Government Middle School, Sandhi, Ramgarh, Jharkhand
Presiding Officer	Upper Collector, Ramgarh
Major issues raised	Pollution Control, Plantation, Employment for local people, Proper utilization of CSR fund for local development.

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

Issues raised during PH	**Physical Activity and Action Plan**	**Particulars**	**Year of Implementation**			**Total Budget**
			1st year	**2nd year**	**3rd year**	
Employment and Skill development						
Employment for local people	Priority will be given to local employment. Out of the regular employment of 308 nos 200 nos will be from local people based on their qualification and experience. Out of the total contractual workers i.e. 1000 persons, 80% will be sourced from the local villages as per the requirement.	Activity	50 regular and 700 contractual workers	100 regular and 800 contractual workers	100 regular and 800 contractual workers	
		Budget	As per the company rule			--
Skill development	Support for ITI study of 10 Nos of meritorious students from Painki and Rauta village, Selection will be made based on the recommendation of village committee	Activity	15 nos	13 nos	12 nos	
		Budget @25,000 per annum per student	3.75 Lakhs	3.25 Lakhs	3.0 Lakhs	10.0 Lakhs

Issues raised during PH	Physical Activity and Action Plan	Particulars	Year of Implementation			Total Budget
			1st year	2nd year	3rd year	
Health Care						
Health checkup camps	Organizing Specialized Health check-up camps alternatively for treatment of Diabetes, Eye & Gastro Intestinal Diseases on half yearly basis for Painki and nearby villages	Activity	Quarterly health camp Paiki, Rauta and Napo village			
		Budget	3.0 Lakhs	3.0 Lakhs	2.0 Lakhs	8.0 Lakhs
Regular Health facility	There is an existing dispensary operating within the plant premises of M/s RCMPL. The health service will be extended to the local villagers	Activity	Operation of dispensary at Painki			
		Budget	8.0 Lakhs	8.0 Lakhs	8.0 Lakhs	24.0 Lakhs
	M/s RCMPL is having an ambulance for providing emergency health service for the local people	Activity	Maintenance	Maintenance	Maintenance	
		Budget	4 Lakhs	4 Lakhs	4 Lakhs	12.0 Lakhs
Education						
Infrastructure development of educational institutions.	Support to Primary school for developmental activities (Repair and maintenance of furniture, Boundary wall, Gate, Massionary work of class rooms, Toilet water supply etc as per requirement of school)	Activity	Paiki and Rauta Primary School			
		Budget	3.00 Lakhs	3.00 Lakhs	2.00 Lakhs	8.0 Lakhs
Other Peripheral Developmental activities						
Proper Utilization of CSR Fund	The CSR fund is being utilized for different developmental purposes which include maintenance of the road, health camp, plantation activities. During the period of last 5 years 1.2 crores has been spent in response to social developmental activities.					
Proposal for Utilization of CSR fund	Formation of the village committee to monitor the Peripheral Developmental	Activity	Village committee will be formed	Monitoring and review of the developmental activities by the committee and proper utilization of the demarcated fund for the		

Issues raised during PH	Physical Activity and Action Plan	Particulars	Year of Implementation			Total Budget
			1st year	2nd year	3rd year	
	activities implemented by the proponent. Nomination will be made by Panchayat during Gram sabha			specified developmental work		
		Budget	--	--	--	
Construction and Maintenance of Road	Maintenance of the road connecting Paiki village to SH (2Km) will be carried out	Activity	Repair of the existing road	Maintenance of the Road		
		Budget	25.00 Lakhs	10.0 Lakhs	10.0 Lakhs	45.0 Lakhs
Supply of drinking water facility to nearby people and villagers	Solar water supply system with pump and pipe supply in nearby villages.	Activity	Rauta village	Paiki Village	Sandi Village	
		Budget	7.0 Lakhs	7.0 lakhs	7.0 lakhs	21.0 Lakhs
Supply of Electricity	Installation of solar street lights	Activity		15 nos Paiki village	15 nos Rauta Village	
		Budget @40,000 per light post		6 Lakhs	6 Lakhs	12.0 Lakhs
Plantation along the road	Plantation along the road side (From Plant site to NH 33) 2 Km. The saplings will be provided with tree guards	Activity	Plantation of 1000 nos of saplings (1 Km)	Plantation of 1000 nos of saplings (1 Km)	Maintenance	
		Budget @Rs.300/- per saplings with tree guard	3.0 Lakhs	3.0 Lakhs	2.0 Lakhs	8.0 Lakhs
Watering of the Plants along the road	One dedicated water tanker will be provided for watering of the trees along the road	Activity	Once 10 KL water tanker will be hired and used for watering of trees along road			
		Budget	3.0 Lakhs	3.0 Lakhs	2.0 Lakhs	8.0 Lakhs
Pollution control measures						
Pollution control measures to be	Installation and operation of pollution control measures to reduce	Activity	All the pollution control measures will be installed as per the statutory requirement and will be monitored by statutory authority as well as village committee.			

Issues raised during PH	Physical Activity and Action Plan	Particulars	Year of Implementation			Total Budget
			1st year	2nd year	3rd year	
implemented by the industry	the pollution load on the surrounding environment	Budget	Included in EMP cost			
Total						**156.0 Lakhs**

21.2.15 The existing capital cost of project was 100 crores. The capital cost of the proposed project is Rs 378 Crores and the capital cost for environmental protection measures is proposed as Rs 34 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 1.8 Crores. The employment generation from the proposed project / expansion is 308 nos. The details of cost for environmental protection measures is as follows:

S. No.	Description of Item	Existing (Rs. In lakhs)		Proposed (Rs. In lakhs)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
(i).	Air Pollution Control/ Noise Management	500	20	2850.0	60.0
(ii).	Water Pollution Control & Solid waste Management	50.0	10.0	300.0	55.0
(iii).	Environmental Monitoring and Management	--	10.0	--	20.0
(iv).	Green Belt Development	10.0	1.0	50.0	5.0
(v).	Occupational Health & Risk management	10.0	2.0	100.0	25.0
(vi).	Environmental Laboratory and establishment of EMC	--	--	100.0	15.0
	Addressal of Public Consultation concerns	--	--	156.0	--

21.2.16 Existing green belt has been developed in 5.25 ha area which is about 26% of the total project area of 20 ha with total sapling of 2000 Trees. Proposed greenbelt will be developed in 8.0 ha which is about 40 % of the total project area. Thus, total of 8.0 ha area (40% of total project area) will be developed as greenbelt. A 7.5 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/ MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 5800 saplings will be planted and nurtured in 8.0 hectares in 3 years.

21.2.17 A notice has been issued under section 5 of EPA 1986 issued vide letter dated 13.12.2018 regarding noncompliance of the Environmental conditions by MoEF&CC. In compliance to the letter the PP has submitted the action taken report vide their No RCMPL/ 128 I 18-19 dated 12.01.2019. Based on the action taken report verification visit has been carried out by regional

officer, MoEF&CC, Ranchi vide File No. 103/257/09/EPE/8502 dated 11.10.2019. Further after the present site visit for issue of certified compliance report and submission of action taken report, M/s Radha Casting and Metaliks submitted a request letter to MoEF&CC for revocation of notice.

Certified compliance report from IRO MoEFCC

21.2.18 The Status of compliance of earlier EC was obtained from Regional Office, Ranchi vide letter no 103-257/09/EPE/678 dated 02.11.2022 in the name of M/s. Radha Casting and Metalik (P) ltd. The Action taken report regarding the partially/ non-complied condition was submitted to Regional officer MoEF&CC, Ranchi vide letter no. RCMPL/287/2022-23 dated 10.11.2022. MoEF&CC (RO), Ranchi evaluated the same and has issued letter dated Nil. The details of the observations made by RO in the report dated Nil 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.			Response by PP
			EC date	Specific	General	
1.	Installation of ESP in the furnace and regular maintenance of wet scrubber are yet to be carried out	Partially Complied	23.12.2009	i.		PP will install the ESP within six months. PP has initiated the regular maintenance of wet scrubber. Maintenance of wet scrubber will be carried out once in six months.
2.	Dust control measures such as bag filters/ Water sprinklers to check fugitive emission needs to provided	Partially Complied		v.		There is the proposal for installation of 8 nos of water fogging system within the raw material shed. The entire internal road has been stone paved and 20 nos of water sprinklers has been installed and and additional 20 nos of sprinklers will be installed along riad side. The installation will be completed within 6 months.
3.	Improvement in measures required to control fugitive emission at the loading and unloading siters as well as in the crushing plant sites	Partially Complied		vi.		For control of dust the crushing plant will provided with bag filters. The entire internal road has been stone paved and 20 nos of water sprinklers has been installed and and additional 20 nos of sprinklers will be installed along riad side. The installation will be completed within 6 months.
4.	Project authorities should take measures for treatment and use of domestic waste water	Partially Complied		vii.		Domestic waste water is treated through soakpit via septic tank which has been constructed. Further there is the proposal for installation of 20 KLD STP along with our expansion proposal.

S. No.	Non- compliances details	Observation of RO (abridged)	Condition no.			Response by PP
			EC date	Specific	General	
5.	The project authorities should take up proper rain water harvesting measures and provide details	Partially Complied		ix.		There is an existing rain water harvesting pond present within the plant premises with dimension 12x12x6 m. Further there is proposal for construction of same capacity RWH near to the 1st pond. The 1st pond will be connected to the garland drains and used as settling pond and 2nd pond will be used as storage water tank for utilization in industrial activities. Total storage capacity of the tank will be 1728 Cu.m. The rain water stored in the pond will be utilized for plantation, dust suppression and cooling activities. We are in the process of revival and maintenance of the existing rain water harvesting pond.
6.	Details of Bag filter dust sold is not provided	Partially Complied		xiii.		Bag filter dust is presently stored in shed area which will be sold to sinter plant of Jamshedpur, Jharkhand within March 2023.
7.	Proper utilization of slag and Action plan for solid waste disposal	Partially Complied		xvi & xvii		Around 500 MT slag from Induction furnace is available in the shed area. We shall dispose off within 2 months.
8.	The project proponent are to raise green belt all along the boundary as prescribed in EC letter	Partially Complied		xix.		Green belt has been developed over an area of 5,25 Acre and with the expansion proposal another 2.75 Acre of green belt will be developed
9.	Project authorities are yet to achieve all the recommendation of CREP	Partially Complied		xx.		Details of CREP compliance is given
10.	The PP have carried out construction of sheds within plant premises. Details of the construction made to be submitted	Partially Complied			ii.	The shed constructed within the plant premises is meant for storage of raw material along the side of induction furnace
11.	Detail of last occupational health surveillance need to be submitted	Partially Complied			vii.	Occupational health surveillance is being carried out as per factory law.

Deliberations by the Committee

21.2.19 The Committee noted the following:

1. Total project land is 8.09 ha which is acquired by M/s Radha Casting and Metalik (P) Ltd. No additional land acquired for the expansion. The EAC is of the view that details of land involved in the project [Total area of the land; Type of land; Details of possession of land in the name of PP; Copy of proof of land with area of the land; Conversion of land for industrial purpose from the State Government] needs to be submitted. Also, PP needs to submit satellite imaginary showing the land use of the project site.

2. The proposed project falls in the Severely Polluted Area of Ramgarh as notified by Central Pollution Control Board (CPCB). The EAC deliberated on the compliance of the conditions as per Ministry's guideline dated 24th October 2019 and found it unsatisfactory. The EAC is of the opinion that robust and quantified mitigation plan shall be prepared.

3. The EAC noted that a notice has been issued under section 5 of EPA 1986 vide letter dated 13.12.2018 regarding noncompliance of the Environmental conditions by MoEF&CC. In compliance to the letter the PP has submitted the action taken report vide their No RCMPL/ 128 I 18-19 dated 12.01.2019. Based on the action taken report verification visit has been carried out by regional officer, MoEF&CC, Ranchi vide File No. 103/257/09/EPE/8502 dated 11.10.2019. Further after the present site visit for issue of certified compliance report and submission of action taken report, M/s Radha Casting and Metaliks submitted a request letter to MoEF&CC for revocation of notice. PP shall submit the updated status in this regard.

4. The Committee deliberated upon the certified compliance report of IRO, MoEF&CC dated 02.11.2022 and further review report of IRO and observed that 11 conditions have been reported to be partially complied. The EAC is of the opinion that compliance of all the conditions is required for appraisal of the expansion project. In this regard, PP shall comply with the partially complied conditions and obtain closure report from IRO.

5. The PP/Consultant presented the drone video of the project site and the EAC is of the opinion that housekeeping of the plant area needs to be improved. The EAC is also of the view that new drone survey video shall be presented by the PP/Consultant during next appraisal of the project.

6. The EAC noted that existing green belt has been developed in 5.25 ha area which is about 26% of the total project area of 20 ha with total sapling of 2000 Trees which is less than CPCB norms of 2500 saplings/ha in 33% of project land area. PP has further proposed for plantation of 5800 saplings in 8.0 hectares in 3 years. The EAC opined that gap filling shall be undertaken and maximum plantation shall be completed within 1st year. PP shall submit a revised greenbelt development plan along with an undertaking in this regard.

7. Damodar River is a distance of 50 m in the South direction from the project site. The EAC noted that in the ToR dated 14.01.2020, the distance of Damodar river is mentioned as 100 m from the project site. PP shall submit the reason for the same. Also, in pursuance to Ministry's O.M. dated 14.02.2022 pertaining to Guidelines for siting industries which are in close proximity with the river, PP shall submit the clarification

along with requisite documents whether the project qualifies as per para 5 and 6 of the said O.M. Also it is desired that PP shall obtain NOC from the irrigation department.

8. Damodar River (50 m, S), Routa Nala (200 m, W) and Meramgarh Nala (2.2 Km, E) exists within 10 km radius of the plant site. The EAC is of the opinion that 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 submitted.

9. The nearest habitation to plant are Paiki and Rauta villages located at 1 km away from the project site boundary. Project Proponent shall submit environmental safeguard measures that will be undertaken to minimise the impact on the habitation of the locals.

10. PP shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, shall be prepared to develop them into model villages. PP shall submit details of the villages to be adopted.

11. The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and opined that action plan submitted to address the PH issues and socio-economic development of the nearby villages shall be revised and submitted as per Ministry's OM dated 30.09.2020.

12. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions and the associated EMP cost and found it unsatisfactory. The EAC is of the opinion that revised EMP cost for the project shall be submitted.

13. The Committee deliberated on the incremental GLC due to the proposed project and observed that incremental GLC for CO has not been submitted in the brief. In this regard, the EAC is of the opinion complete information in this regard shall be submitted.

14. The industry should mention the casting route adopted for producing billets. Is it continuous casting or not? This must be introduced in the process flow sheet. The environmental impacts associated with this route should be discussed in EIA.

15. In view of above facts, EAC advised PP to revise the EIA/EMP report covering all the desired information for further consideration.

16. The PP/Consultant agreed to the suggestions of EAC and requested EAC to allow reappear after the revision of the application incorporating the desired information.

Recommendations of the Committee:

21.2.20 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** to address the shortcomings enumerated at para no. 21.2.19 above. The proposal may be considered after submission of the requisite information.

****

Agenda No. 21.3

21.3 Expansion of Cement Plant with increase in production of Clinker from 2.6 MTPA to 4.0 MTPA, Cement from 2.0 MTPA to 4.0 MTPA by making change in Raw Mill, Preheater, Coal Mill, Cement Mill & Packing Plant of Kiln-III by M/s. NCL Industries Limited, located at Village Mattapally, Mandal Matampally, District Suryapet, Telangana - Consideration of Environmental Clearance.

[Proposal No. IA/TG/IND/27653/2015 ; File No. J-11011/576/2008-IA.II(I)]
[Consultant: Pridhvi Envirotech Private Limited; Valid upto 09 Feb 2023]

21.3.1 M/s. NCL Industries Limited has made an online application vide proposal no. IA/TG/IND/27653/2015 dated 23.12.2022 along with copy of EIA report, Form – 2 and Certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no.3(b) Cement Plants under Category "A" of the schedule of the EIA Notification, 2006 and attracts general condition due to existence of the interstate boundary with Andhra Pradesh within 2.1 KM in southern direction from the site and appraised at Central Level.

21.3.2 Name of the EIA consultant: M/s Pridhvi Envirotech Private Limited [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/22/2578; valid upto 09.02.2023, as on January 6, 2023].

Details submitted by Project proponent

21.3.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
30.03.2021	Standard ToR Granted	Terms of Reference	01.04.2021	31.03.2025

21.3.4 The project of NCL Industries Limited located in Sy. No. 1-9 (Part), 14, 88 (Part) & 89 (Part), Mattapally village, Matampally Mandal, Suryapet District, Telangana is for expansion in production of Clinker from 2.6 MTPA to 4.0 MTPA and Cement (OPC and PPC) from 2.0 MTPA to 4.0 MTPA.

21.3.5 Environmental Site Settings:

S.No.	Particulars	Details submitted by the PP	Remarks
1	Total land	48.12 Ha (Own Land)	Land use: Industrial
2	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	No land acquisition required as the land is owned by the company.	-
3	Existence of habitation & involvement of R&R, if any.	R&R Not applicable. The nearest human settlement from the site is Mattapally Village located at a distance of 1.1	-

<table>
<tr><th>S.No.</th><th>Particulars</th><th>Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>KM from the site. A total of 23 villages and towns are existing in the 10 km radius of the site.</td><td></td></tr>
<tr><td>4</td><td>Latitude and Longitude of all corners of the project site.</td><td>
<table>
<tr><th>S.no</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1</td><td>16°42'43.34"N</td><td>79°49'12.80"E</td></tr>
<tr><td>2</td><td>16°42'52.40"N</td><td>79°49'15.98"E</td></tr>
<tr><td>3</td><td>16°42'54.23"N</td><td>79°49'16.06"E</td></tr>
<tr><td>4</td><td>16°42'59.67"N</td><td>79°49'16.62"E</td></tr>
<tr><td>5</td><td>16°43'6.84"N</td><td>79°49'17.62"E</td></tr>
<tr><td>6</td><td>16°43'24.49"N</td><td>79°49'13.99"E</td></tr>
<tr><td>7</td><td>16°43'16.63"N</td><td>79°49'6.00"E</td></tr>
<tr><td>8</td><td>16°43'11.74"N</td><td>79°49'3.05"E</td></tr>
<tr><td>9</td><td>16°43'13.10"N</td><td>79°48'58.94"E</td></tr>
<tr><td>10</td><td>16°43'3.31"N</td><td>79°48'59.57"E</td></tr>
<tr><td>11</td><td>16°42'45.84"N</td><td>79°48'55.94"E</td></tr>
</table>
</td><td></td></tr>
<tr><td>5</td><td>Elevation of the project site</td><td>
<table>
<tr><th>S No</th><th>Direction</th><th>Longitude</th><th>Latitude</th><th>Elevations in Meters as Carto sat Dem</th></tr>
<tr><td>1</td><td>NORTH</td><td>79.820493</td><td>16.812846</td><td>78</td></tr>
<tr><td>2</td><td>SOUTH</td><td>79.819355</td><td>16.62349</td><td>75</td></tr>
<tr><td>3</td><td>EAST</td><td>79.913083</td><td>16.719497</td><td>73</td></tr>
<tr><td>4</td><td>WEST</td><td>79.723730</td><td>16.727086</td><td>78</td></tr>
</table>
</td><td></td></tr>
<tr><td>6</td><td>Involvement of Forest land if any</td><td>Nil</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>Within Project site: Nil
Study Area:
<table>
<tr><th>S No.</th><th>Location</th><th>Distance in KM</th><th>Direction</th></tr>
<tr><td>1</td><td>Krishna River</td><td>0.6</td><td>S</td></tr>
<tr><td>2</td><td>Vemuleri River</td><td>3.4</td><td>NW</td></tr>
<tr><td>2</td><td>Vagu Near Raghavapuram</td><td>6.05</td><td>NW</td></tr>
<tr><td>3</td><td>Pond Near Chitalammagudem</td><td>5.34</td><td>NNE</td></tr>
<tr><td>4</td><td>Pond Near Mathampalli</td><td>8.32</td><td>NNE</td></tr>
<tr><td>5</td><td>Pond near Kottur</td><td>5.08</td><td>WSW</td></tr>
<tr><td>6</td><td>Pond near Krishna Tanda</td><td>3.92</td><td>NNE</td></tr>
<tr><td>7</td><td>Pond near Gundlapahad</td><td>6.88</td><td>WNW</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

<u>List of Reserve Forests</u>

Sultanpur RF - Adjacent to site
Tangeda RF - 4 KM -SE
Madinapadu RF - 4 KM- SW
Vajralagani RF - 5.8 KM -NW
Gurrambodu RF - 5.6 KM -North
Pittalasarikota RF - 6.5 KM -SE
Regulagadda RF - 7.38 KM- SE
Nirchintha Vagu RF - 5.6 KM- NW
Gundlapahad RF - 6.5 KM -NW</td><td></td></tr>
</table>

21.3.6 The existing project was accorded the following environmental clearances:

S.NO.	ORDER NO.	DATE	Production Details	EC
1	J-11015/08 2005 IA.II(M)	30.08.2005	Expansion of Mattampalli Limestone Mine (13,441 TPA to 0.313 MTPA)	EC
2	F.NO. J-11011/424/2007-IA II(I)-EXPANSION EC FROM MoEF&CC	22.01.2008	Expansion of clinker production unit (0.3 MTPA to 0.60 MTPA)	EC
3	F.NO.J-11011/576/2008-IA II(I) EXPANSION EC FROM MoEF&CC	15.12.2009	Expansion of cement plant (cement 0.30 MTPA to 0.90 MTPA; Clinker 0.60 MTPA to 1.60 MTPA) and LIMESTONE (0.90 MTPA to 2.55 MTPA)	EC
4	SEIAA/AP/NLG-35/2011-692 EC OF COAL BASED CAPTIVE POWER PLANT	27.04.2013	1 X 30 MW Electricity. Imported coal-550 TPD	EC (Proposal is Dropped)
5	F.NO.J-11011/576/2008-IA II (I) EXPANSION EC FROM MoEF&CC	28.10.2016	Expansion of Clinker production from 1.6 million TPA to 2.60 Million TPA and cement production from 0.9 million TPA to 2.0 million TPA	EC

Consent to Operate for the existing unit was accorded by Telangana State Pollution Control Board vide lr. No. 220823507431dated 6.4.2022. The validity of CTO is valid up to 31.01.2027. List of previous CTE and CTO is given below:

S.NO.	ORDER NO.	DATE	Production Details	CTE/ CTO
1	APPCB/PTN/13/ HO/W/2003/78-889	21.06.2003	O.P Cement 760 TPD Portland Pozzolona Cement 40 TPD	CTO
2	APPCB/PTN/13/HO /2004/74-622	09/06/2004	Clinker -900 TPD Cement-900 TPD	CTO
3	APPCB/PTN/NLG/13/HO /W&A/2007-1399	24.09.2007	Clinker-900 TPD Ordinary Portland Cement-900 TPD	CTO
4	APPCB/PTN/NLG/13/HO /CFO/2008-986	11.07.2008	Clinker-900 TPD Ordinary Portland Cement-900 TPD	CTO
5	APPCB/PTN/NLG/13/HO /W&A/ 2009-803	24.06.2009	Clinker-1800 TPD Ordinary Portland Cement-900tpd	CTO
6	APPCB/PTN/NLG/13/HO /W&A/ 2010-224	28.04.2010	Clinker-3000 TPD Ordinary Portland Cement-1920 TPD	CTO
7	APPCB/PTN/NLG/13/HO /CFO/	30.07.2011	Clinker-4800 TPD Ordinary Portland	CTO

S.NO.	ORDER NO.	DATE	Production Details	CTE/ CTO
	2011-1247		Cement-2820 TPD	
8	TSPCB/RCP/NLG/10209/ CFO&HWM /HO/2014-674	06.01.2015	Clinker-4800 TPD Ordinary Portland Cement-2820 TPD	CTO
9	TSPCB/RCP/HO/CFO/ 2017-3095	13.02.2017	Amendment to the CFO & HWA Order	CTO
10	02/TSPCB/CFE/RO-NLG/ HO/2017-3161	15.02.2017	Clinker- 7800 TPD Ordinary Portland Cement- 6120 TPD	CTE
11	TSPCB/RCP/HO/CFO/ 2017-1571	29.08.2017	Clinker-4800 TPD Ordinary Portland Cement-2820 TPD	CTO
12	TSPCB/RCP/HO/CFO/ 2017-2186	23.10.2017	Clinker From Line I, II&III-7800 TPD (2.6 MTPA) Ordinary Portland Cement (Opc)/ Pozzlona Portland Cement (PFC) (From Line I & II)-2820 TPD 0.9 MTPA	CTO
13	TSPCB/NLG/HO/CFO/ 2018-4061	07.03.2018	Clinker From Line I, II&III-7800 TPD (2.6 MTPA) Ordinary Portland Cement -2820 TPD (0.9 MTPA)	CTO
14	TSPCB/NLG/HO/CFO/ 2018-2563	19.11.2018	Clinker From Line I, II&III-7800 TPD (2.6 MTPA) Ordinary Portland Cement -6120 TPD (2.0 MTPA)	CTO
15	TSPCB/CFE/RO-NLG/HO/ 2019-1145	09.08.2019	Electricity (Based on Waste Heat Recovery) 10.25 MW	CTE
16	TSPCB/NLG/HO/CFO/ 2020-663	17.07.2020	Clinker From Line I, II&III-7800 TPD (2.6 MTPA) Ordinary Portland Cement (OPC)/ Pozzlona Portland Cement (PFC) (From Line I & II)-6120 TPD 2.0MTPA	CTO
17	TSPCB/CFE/SPT/RO-NLG/ HO/2020	29.09.2020	Electricity (Based on Waste Heat Recovery) 11 MW	CTE
18	TSPCB/CFE/SPT/RO-NLG/ HO/2021	01.12.2021	Clinker From Line I, II&III-7800 TPD (2.6 MTPA) Ordinary	CTE

S.NO.	ORDER NO.	DATE	Production Details	CTE/ CTO
			Portland Cement (OPC)/ Pozzlona Portland Cement (PFC) (From Line I & II)-6120 TPD 2.0MTPA	

21.3.7 Implementation status of the existing EC

S. No.	Facilities	Units	As per EC dated 28.10.2016	Implementation Status as on	Production As per CTO
1.	Line I KILN and other supporting equipment	MTPA	0.6	Completed	Clinker production 2.6 million TPA and cement (OPC and PPC) production 2.0 million TPA
2.	Line II KILN and other supporting equipment	MTPA	1.0	Completed	
3.	Line III KILN and other supporting equipment*	MTPA	2.4	Partially Implemented	
Since the Kiln- III designed capacity is 2.40 MTPA, it is proposed to utilise the full production capacity of Kiln – III by making changes in raw mill, Pre-Heater, coal mill, Cement mill & packing plant units as a part of the expansion activity					

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

S.No	Name of Product	Existing quantity in Million TPA	Proposed additional Quantity in Million TPA	Total After Expansion Million TPA
1	Clinker	2.6	1.4	4.0
2	Cement (OPC and PPC)	2.0	2.0	4.0

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

S No	Name of Raw material	Existing (Million TPA)	For Expansion Million TPA	Total After Expansion Million TPA	Source	Lead distance in KM	Mode of Transport
1	Lime stone	2.55	3	5.55	Captive Mines	3-7 KM	Tippers
2	Bauxite/ Laterite/ Iron	0.3	0.15	0.45	Andhra Pradesh,	150-500 KM	Trucks

	Ore				Chhattisgarh, Hyderabad & Bellary		
3	Coal	0.39	0.21	0.6	Singareni Collieries	300 KM	Trucks
					Foreign supplies – Visakhapatnam & Krishna patnam Ports	650-750 KM	Trucks
FOR CEMENT PRODUCTION							
4	Fly Ash	0.3	0.3	0.6	1.KTPS-Kottagudem	200-400 KM	Bulk Tankers
					2.VTPS - Vijayawada		
					3.Navabharat - Paloncha		
					4.ITC-Bhadrachalam.		
5	Gypsum	0.1	0.1	0.2	Coramandal Fertilisers, Visakhapatnam	750 KM	Road

21.3.10 The existing fresh water requirement is 1962 KLD and recycled water is 3438 KLD. Fresh water requirement is obtained from River Krishna. NCL has obtained permission from the Irrigation & C.A. D Department, Government of Andhra Pradesh for the drawl of 4275 m^3/day from River Krishna vide G.O.Ms.No.97 I dated 22.10.2013 Letter No. AB/A4/15 dated 08.01.2015. The fresh water requirement for the proposed expansion is estimated as 1992 KLD and recycled water after expansion will be 3652 KLD. NCL has obtained permission from the Irrigation & C.A D Department, Government of Andhra Pradesh for the drawl of 4275 m^3/day from River Krishna vide G.O.Ms.No.97 I dated 22.10.2013 Letter No. AB/A4/15 dated 08.01.2015.

21.3.11 Existing Power requirement is 30 MW, out of which 11 MW Power will be harnessed from wase heat recovery boilers and 4.5 MW will be harnessed from solar panels and rest of the power will be obtained from TS Southern Power Distribution Corporation Limited. Additional power requirement of 11 MW will be obtained from TS Southern Power Distribution Corporation Limited. Total power requirement after expansion is 41 MW.

21.3.12 Baseline Environmental Studies:

Period	**March 2021 – May 2021**
AAQ parameters at 8 Locations (min and max)	• $P.M_{10}$ = 62.1 µg/m^3 to 84.3 µg/m^3 • $P.M_{2.5}$= 32.5 µg/m^3 to 43.4 µg/m^3 • SO_2 = 6.3 µg/m^3 to 12.8 µg/m^3 • NO_2 = 15.8 µg/m^3 to 23.7 µg/m^3 • CO = 0.71 mg/m^3 to 1.11 mg/m^3

Incremental GLC level

S.No	Parameter	Predicted GLC ($\mu g/m^3$)	Latitude	Longitude
1	PM_{10}	2.63	16º43'1.08''N	79º49'7.83''E
2	$PM_{2.5}$	1.64	16º43'1.08''N	79º49'7.83''E
3	SO_2	4.92	16º42'50.11''N	79º49'9.73''E
4	NO_2	5.69	16º43'1.08''N	79º49'7.83''E

The maximum values are observed at different places in the project site/near project site as given in the table with location.

Ground water quality at 8 locations

Parameter	Unit	Maximum Value	Minimum Value	Prescribed Standard
pH	-	8.05	7.54	6.5 – 8.5
TDS	mg/l	1252	534	500 – 2000
Chlorides	mg/l	367.95	90.16	250 – 1000
Fluoride	mg/l	1.13	0.81	1 – 1.5
Total hardness	mg/l	602.50	156.4	200 – 600
Heavy Metals	mg/l	0.003	0.01	0.05

Surface water quality at 8 locations

Parameter	Unit	Maximum Value	Minimum Value
pH	-	8.13	7.82
TDS	mg/l	904	320
Chlorides	mg/l	241	82.4
DO	mg/l	6.9	6.2
BOD	mg/l	19.6	4.8
COD	mg/l	45.0	15.0

Noise levels Leq (Day and Night)

Parameter	Unit	Maximum Value	Minimum Value	Prescribed Standard
Leq (Day)	A-weighted decibels (dB(A))	71.1	51.2	Industrial zone-75 Residential zone- 55
Leq (Night)	A-weighted decibels (dB(A))	65.6	41.8	Industrial zone-70 Residential zone- 45

Traffic assessment study findings

- Traffic study has been conducted on the access road covering both Dachepally to Huzurnagar Road which is adjacent to the plant site.
- Transportation of raw material, fuel & finished product will be done 100 % by Road.

(However, the unit approached South Central Railway for rly sliding which is under consideration)

- Existing PCU is 202 PCU/Hr on Dachepally to Huzurnagar Road and existing Level of Service (LOS) is:

Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C ratio	LOS
Dachepally and Huzurnagar	202	15000	0.013	A (Excellent)

<table>
<tr><td></td><td>PCU Load after proposed expansion project will be 202 (Existing) + 16.18 (Additional) PCU/Hr and Level of Service 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>Dachepally and Huzurnagar</td><td>218.18</td><td>15000</td><td>0.0145</td><td>A (Excellent)</td></tr>
</table>
Note: Capacity as per IRC code 64-1990
Conclusion: The Level of Service will A after including additional traffic due to proposed project.</td></tr>
<tr><td>Flora and fauna (presence of Schedule I Fauna and Endangered species</td><td>No Schedule I fauna and endangered flora found in the study area.</td></tr>
</table>

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

S. No.	Waste Particulars	Current Volume	Volume after Expansion	Disposal Methodology
1	Oil	350 LPM	475 LPM	Used oil disposal through authorized recyclers.
2	Grease	150 kg/PM	250 Kg/PM	Disposal through authorized recyclers.
3	STP Sludge	0.5TPM	0.75TPM	Used as manure for green belt development
4	Raw water Treatment Plant Sludge	0.75 TPM	0.75 TPM	Used manure for green belt
5	Garbage from Plant & Colony	1.0 TPD	1.2 TPD	Composted and used for Plantations
6	Torn LDPE bags used for cement Packing	2.80TPA	4.20TPA	Send to Recyclers
7	e-Waste	1.87 TPA	2.0TPA	Sent to authorized Recyclers
8	Dust generated from various pollution Control equipment is re-used back at respective places i.e. Raw Material mixing, Coal feeding and cement plant			

21.3.14 Public Consultation:

Details of advertisement given	21.09.2021
Date of public consultation	21.10.2021
Venue	Venue is project site NCL Industries Limited
Presiding Officer	District Collector, Suryapet District
Major issues raised	i. Employment to local people. ii. Road construction & public transportation nearby villages

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

S.no	Activity	Physical Targets	Year wise Budgets (Rs. Lakhs)					
			1	2	3	4	5	Total
1.	Monthly Health Camps (including distribution of medicines, ambulance services etc.)	Monthly 4-5 medical camps will be conducted in the villages of Mattapally, Sultanpur Tanda,Ramachandra puram Tanda, Gudlapalli, Bimla Thanda, Bhojya Thanda, Krishna Thanda, Gurrambodu Thanda villages in the surroundings of NCL industries	20.0	20.0	20.0	20.0	30.0	**110.0**
2.	Vocational Skill Development Programmes through Apprentice ship in the company for about 20 people an year	1)Identification of Candidates from references from villages 2) Selection of candidates based on the qualifications and interview 3) Allotment of candidates for two years period to various departments and payment of stipend every month 4) Provide certificate to successful candidates at the end of the program during Annual Day of Company	20.0	20.0	20.0	20.0	20.0	**100.0**
3.	Maintenance of Charitable medical Facility developed by NCL and include dental and eye testing facilities	1)Establishment of Eye Testing facility & Diagnostic lab in medical center	20.0	-	-	-	-	**20.0**
		2) Establishment of Dental Testing facility in medical Center	-	10.0	-	-	-	**20.0**
		3)Maintenance of Medical center with salaries and medical supplies	50.0	50.0	60.0	60.0	60.0	**280.0**

S.no	Activity	Physical Targets	Year wise Budgets (Rs. Lakhs)					
			1	2	3	4	5	Total
4.	Operational Expenses for school and College	Salaries to teachers, Maintenance of laboratories, Computer center, sports kits. Free education is given to total of 1000 students from nearby	225.0	225.0	225.0	225.0	225.0	**1125.0**
5.	Contribution for development of greenery in the nearby villages (2000 trees every year)	Avenue plantations on village roads and in public places identified by Local panchayats	10.0	10.0	10.0	10.0	10.0	**50.0**
6.	Construction of Toilets under Swatch Bharat Program in the villages	40 Toilets will be constructed in the identified villages every year	10.0	10.0	10.0	10.0	10.0	**50.0**
	Total		**335.0**	**335.0**	**335.0**	**335.0**	**345.0**	**1685.0**

As per the commitments made during the public hearing held on 4.5.2016 NCL Industries Limited has taken up CER Activities in the following Villages and Spent about Rs. 29.69 Lakhs during the past 5 years

S.NO	Name of Villages	Activity	Committed amounts for development activities in the villages during the Public hearing	Amount spent in Rs. Lakhs
1	Mattapally	Village Development Construction of Toilets, Roads, Erecting of Street Lights, Drinking water Ro Plants, Medical camps, Construction of Burial grounds, Skill Development Etc.	Rs.25.00 Lakhs	Rs. 29.69
2	Sulathpur Thanda			
3	Gundlapally			
4	Ramachandrapuram			
5	Peddavidu			
6	Krishna Thanda			
7	Gurambodu Thanda			
Note: This is apart from Expenditure spent on Educational Institutions and hospitals maintained by NCL Industries which is Rs. 10.86 Crores in the last 5 years.				

21.3.15 The existing capital cost was Rs.725 Crores. The capital cost of the proposed expansion project is Rs. 371 Crores. The capital cost for environmental protection measures is proposed as Rs. 10.525 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 1.75 Crores. The employment generation from the expansion project is 763 Nos. The details of cost for environmental protection measures proposed is as follows:

S. No	Component	Item	Capital cost in lakhs of Rs.	Recurring Costs in Lakhs of Rs. / annum
1	Air Pollution Control	Upgradation of Existing ESP attached to Kiln -Line III Cooler New Bag house for New Pre-heater line	400	50
		Establishment of bag filters attached to New VRM, Cement Mill, Coal Mill, Lime stone crusher, Packing plant, Raw material storage yards	300	30
		Improvements in dust suppression measures near Lime stone stackers	50	--
2	Water Pollution Control	• Upgradation of existing STP to meet the new out let standards • Provision leak collection systems in hazardous waste storage area used for co-processing	50	10
3	Storm Water Management& rain water harvesting	Strengthening of storm water management system with silt traps and provision of additional rain harvesting structures in the plant	50	5
4	Occupational Health & Safety management	Additional Fire hydrant lines and fire extinguishers in the expansion activity	75	35
5	Green Belt Management	Maintenance of green belt	47.5	20
6	Strengthening of Approach Road to plant	For strengthening of Road opposite to NCL Industries	30	5
7	Environmental Monitoring	Establishment of On line stack monitoring systems and other monitoring as detailed in EIA report	50	20
		Total	**1052.5**	**175**

21.3.16 Existing green belt has been developed in 16.13 ha area which is about 33% of the total project area of 48.12 ha. with total sapling of 60277 trees. In addition to this proposed to develop 1.25 ha of green belt in the plant premises. Thus, total of 17.38 ha area (36 % of total project area) will be developed as greenbelt. A 3 m wide greenbelt, consisting of at least 3 tiers around

plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 7325 saplings will be planted and nurtured in 17.38 hectares in 5 years.

21.3.17 It is submitted that there is a PIL [WP PIL NO. 245(PIL) of 2017] filed by Sevabhai Yuvajana Sangam alleging that the integrated cement factory of NCL Industries Ltd., (which is the Respondent No.14 in the Writ Petition) is causing Pollution and challenging the alleged inaction of the official Respondents in the closure of the Unit. NCL filed our Vakalatnama in the said matter on 16/10/2017 and thereafter, the matter has been appearing in the list for sometime for the Counters of the Respondents. However, due to paucity of time, the matter was never taken up for hearing. In view of COVID-19, the High Court has been taking up only fresh matters and few urgent matters. Thus, the PIL has not come up on board for nearly one and half years. Although the date of listing was shown as the 11th Instant. Upon verifying the online status of the PIL, it is noted that the PCB has filed some report in February, 2021, which is pending scrutiny by the Registry. Also the status of case from High Court Registry is showing the case as pending Hon'ble High Court had not issued any notice to NCL for filling the affidavit in the case.

Certified Compliance report from IRO MoEFCC

21.3.18 The Status of compliance of earlier EC was obtained from Regional Office, MoEFCC, Chennai, *vide* letter no. ENV/IRO-HYD/CCR-04/A/2021-34, dated 03.07.2021 in the name of M/s. NCL Industries Limited. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Integrated Regional office, Hyderabad vide letter no. NCL/QC/ENVT/2021-22 dated 22.07.2021. MoEF&CC (IRO), Hyderabad evaluated the same and has issued letter dated 20.04.2022 vide E File No. ENV/IRO-HYD/CCR-04/A/2021-457. The details of the observations made by RO in the report dated 03.07.2021 along with its re-assessment / present status report dated 20.4.2022 as furnished by the PP is given as below:

S. No.	Non-Compliances	Observation of RO (abridged) dated 03.07.2021	Condition No.			Re-Assessment by RO/PP dated 20.04.2022
			EC Date	Specific	General	
1	Non -Compliance	Study on Carbon emission, sequestration	28.10.2016	Condition No. viii	-	Being complied (Studies are conducted by third party and report submitted to IRO on 23.9.2022
2	Recommendation	Flora and Fauna	-	-	-	Complied

S. No.	Non-Compliances	Observation of RO (abridged) dated 03.07.2021	Condition No.			Re-Assessment by RO/PP dated 20.04.2022
			EC Date	Specific	General	
		Studies of the project				
3	Non -Compliance	Monitor Arsenic and Mercury Levels	28.10.2016	Condition No. x	-	Complied
4	Partial Compliance	Improve energy consumption	28.10.2016	Condition No. iv	-	Being complied
5	Partial Compliance	AAQ Modelling	28.10.2016	Condition No. vi	-	Complied
6	Partial Compliance	Implement Green belt in Mining area	28.10.2016	Condition No. xxiii	-	Complied
7	Recommendation	Provide roof top Harvesting	-	-	-	Being complied

Written representations:

21.3.19 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 16.01.2023 through email dated 16.01.2023 submitted the following information:

S. No	Issue Raised	Clarification	Remarks
1	Details of Previous EC, CTE and CTO implementation	CTE and CTO for previous EC are taken within the validity period of EC and those projects were completed. The production figures are within the sanctioned capacities of EC. Hence there is no violation as reported by the PP.	-
2	Details of Environmental Clearances Status for Lime stone Captive Mines	Environmental clearance was obtained in the year 2009 for Mattapally, Sultanpur and Gundlapalli mine. Sultanpur Mine and Gundlapalli Mine have applied for Expansion. There is no change in production capacity of Mattapally Mine.	The details of the EC Expansion proposals for mines are submitted.
3	Details of Villages	NCL Industries adopted 7	Details of Activities taken

S. No	Issue Raised	Clarification	Remarks
	adopted for CER Activities	nearby villages for carrying out CER Activities.	up in the villages are updated at para 21.3.14 above.
4	Latest Court Case Status	Though the case was listed for 16.08.2022, the case did not come to the bench. No specific order is issued by Court in this regard. PP Legal council was present in the Court on that day	-
5	Latest Certified Compliance report	Latest Certified compliance is obtained on 20.4.2022 and Carbon sequestration studies report is submitted to IRO, MoEFCC Hyderabad on 26.09.2022. and there are no Non- compliances pending for resolution	Copy of Certified compliance report obtained on 3.7.2021 and Action taken report submitted on 22.7.2021 and Latest Certified compliance dated 20.4.2022 & Submission acknowledgement from IRO, MOEF&CC, Hyderabad on Carbon Sequestration studies is submitted
6	Compliance Status of commitments made during the previous public hearing held on 4.5.2016	All the commitments made during the previous public hearing in 4.5.2016 are complied.	Previous Public hearing Commitments and compliance are submitted
7	EMP Budget to be revised w.r.t respect to Capital cost and Activities under Occupational Health and Safety	PP has revised the EMP Budget by including the Civil construction cost in the capital cost and also revised the activities under Occupation Health and safety.	Revised EMP Budget is updated at para 21.3.15 above.
8	Details of CO Emissions	Baseline monitoring of CO emissions are done. CO values ranged between 0.71 to1.11 $\mu g/m^3$. As NCL Industries has established Electro Static Precipitator (ESP) for the Kilns, CO emissions are completely monitored and controlled to safeguard the ESP, Hence modelling is not done for CO emissions.	Extract of EIA Report Pages showing Baseline Ambient Air quality is submitted.

Deliberations by the Committee

21.3.20 The Committee noted the following:

1. The instant proposal is for expansion in production of Clinker from 2.6 MTPA to 4.0 MTPA and Cement (OPC and PPC) from 2.0 MTPA to 4.0 MTPA.

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 existing project was initially accorded EC from MoEF&CC, New Delhi vide F.NO.J-11011/576/2008-IA II (I) dated 28.10.2016 for Expansion of Clinker production from 1.6 million TPA to 2.60 Million TPA and cement production from 0.9 million TPA to 2.0 million TPA. Consent to Operate for the existing unit was accorded by Telangana State Pollution Control Board vide lr. No. 220823507431dated 6.4.2022. The validity of CTO is valid up to 31.01.2027. The chronology of EC and CTE/CTO are presented in para 21.3.6 above. The Committee deliberated upon and noted that there is no violation of the production capacity.

6. The EAC noted that instant proposal is a part of Interlinked project. Environmental clearance was obtained on 15.12.2009 for Mattapally, Sultanpur and Gundlapalli mine. Sultanpur Mine and Gundlapalli Mine have applied for Expansion. There is no change in production capacity of Mattapally Mine.

7. The total project land is 48.12 ha which is under the possession of the company. No additional land acquisition is required for the expansion project.

8. The nearest human settlement from the site is Mattapally Village located at a distance of 1.1 KM from the site. A total of 23 villages and towns are existing in the 10 km radius of the site. The EAC advised that Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The PP shall also include some of these locations in its environmental monitoring programme.

9. Krishna River is at a distance of 0.6 km from the project site in the South direction. Also, Vemuleri River (3.4 km, NW), Vagu Near Raghavapuram (6.05, NW), Pond Near Chitalammagudem (5.34 km, NNE), Pond Near Mathampalli (8.32 km, NNE), Pond near

Kottur (5.08 km, WSW), Pond near Krishna Tanda (3.92 km, NNE) and Pond near Gundlapahad (6.88 km, WNW) exists within the study area of the project site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.

10. The fresh water requirement for the proposed expansion is estimated as 1992 KLD and recycled water after expansion will be 3652 KLD. NCL has obtained permission from the Irrigation & C.A D Department, Government of Andhra Pradesh for the drawl of 4275 m^3/day from River Krishna.

11. Existing green belt has been developed in 16.13 ha area which is about 33% of the total project area of 48.12 ha. with total sapling of 60277 trees. In addition to this proposed to develop 1.25 ha of green belt in the plant premises. Thus, total of 17.38 ha area (36 % of total project area) will be developed as greenbelt. Total no. of 7325 saplings will be planted and nurtured in 17.38 hectares in 5 years. The Committee deliberated on the action plan and budget allocation for green belt development and is of the opinion that green belt development shall be completed in a year.

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

13. Project proponent has submitted that NCL Industries has adopted 7 nearby villages for carrying out CER Activities and has spent an amount of Rs. 29.69 on the socio economic development of these villages.

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

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

16. The Committee deliberated on the revised EMP cost submitted by the project proponent and found it satisfactory.

17. The Committee deliberated upon the certified compliance report of IRO MoEFCC and found it satisfactory.

18. The Committee deliberated upon the written submission of the Project Proponent and found it satisfactory.

19. 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.

20. 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:

21.3.21 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the written submission on portal** under the provisions of EIA Notification, 2006 subject to 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 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.

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

(iii) The nearest human settlement from the site is Mattapally Village located at a distance of 1.1 KM from the site. A total of 23 villages and towns are existing in the 10 km radius of the site. The EAC advised that Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The PP shall also include some of these locations in its environmental monitoring programme.

(iv) Krishna River is at a distance of 0.6 km from the project site in the South direction. Also, Vemuleri River (3.4 km, NW), Vagu Near Raghavapuram (6.05, NW), Pond Near Chitalammagudem (5.34 km, NNE), Pond Near Mathampalli (8.32 km, NNE), Pond near Kottur (5.08 km, WSW), Pond near Krishna Tanda (3.92 km, NNE) and Pond near Gundlapahad (6.88 km, WNW) exists within the study area of 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.

(v) PP shall continue to work for socio economic development of seven adopted villages and prepare a plan to develop them into model villages.

(vi) The fresh water requirement for the proposed expansion of 1992 KLD shall be obtained from Krishna river and 3652 KLD as recycled water. Necessary permission shall be obtained from the Competent Authority in this regard.

(vii) Three tier Green Belt shall be developed in a time frame of one year covering at least 33% of the total project area with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of

green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years.

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

(ix) The Action Plan for the Panch-tatva (5 commitments) including fossil fuel reduction road map and net-zero carbon emissions shall be strictly implemented.

(x) 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. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.

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

(xii) 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.

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

(xiv) 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.

(xv) 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.

(xvi) 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.

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

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

(xix) Petcoke dosing shall be controlled automatically to control SO_2 emission from chimney within the prescribed limits.

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

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

(xxii) Specific action plan for mitigating occupational health hazards must be implemented by the PP.

(xxiii) 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.

(xxiv) 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.

(xxv) 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.

(xxvi) 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.

***

Re-consideration in Environmental Clearance

Agenda No. 21.4

21.4 Increase in production capacity of Asbestos Corrugated & plain Sheets from 1,44,000 TPA to 2,50,000 TPA and installation of pre-coloured galvanized MS profile sheet plant (non- asbestos) of 25000 TPA and Captive Cotton Rag Pulp Plant of capacity 2000 TPA of M/s UP Asbestos Ltd., located at Village-Mau, Taluka- Mohanlalganj, District- Lucknow, Uttar Pradesh- Consideration of Environmental Clearance.

[Proposal No. IA/UP/IND/5671/2011; File No. J-11011/567/2011-IA.II(I)]
[Name of Consultant: M/s. Ecomen Laboratories Pvt. Ltd.; valid up to 21.09.2023]

21.4.1 M/s. U. P. Asbestos Ltd. has made an online application vide proposal no IA/UP/IND/5671/2011 dated 23.05.2022 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. 4(c) Asbestos milling and asbestos based products under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

21.4.2 Name of the EIA consultant: M/s. Ecomen Laboratories Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0203; valid upto 21.09.2023, as on January 16, 2023].

Details submitted by Project proponent

21.4.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	Validity of ToR
20/12/2018	3rd meeting of EAC held on 9-11th January, 2018	Terms of Reference	11/02/2019	10.02.2023
03/04/2021	34th meeting of EAC held on 15-16th April, 2021	Amendment in ToR	03/05/2021	

21.4.4 The project of M/s. U. P. Asbestos Ltd. located in Village- Mau, Tehsil- Mohanlalganj, District- Lucknow, Uttar Pradesh is for increase in production capacity of Asbestos Corrugated & plain Sheets from 1,44,000 MTPA to 2,50,000 MTPA and installation of pre-coloured galvanized MS profile sheet plant (non-asbestos) of 25000 MTPA and Captive Cotton Rag Pulp Plant of capacity 2000 MTPA.

21.4.5 Environmental Site Settings:

S. No.	Particulars	Details submitted by the PP	Remarks
i.	Total land	10.533 ha (26.03 Acre) [Private land]	Land use: Plant:- 2.148 Road:- 2.541

<table>
<tr><td></td><td></td><td></td><td>Greenbelt/ plantation/ stockyard:- 5.844</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td colspan="2">It is a Private Land under the possession of UPAL. The expansion will take place in the existing land. No extra land is required for the proposed expansion.</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td colspan="2">R&R is not applicable.</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site</td><td colspan="2"><table>
<tr><td>Sl No.</td><td>Co-ordinates</td><td>Sl No.</td><td>Co-ordinates</td><td>Sl No.</td><td>Co-ordinates</td></tr>
<tr><td rowspan="2">1</td><td>26°41'38.78"N</td><td rowspan="2">5</td><td>26°41'24.17"N</td><td rowspan="2">9</td><td>26°41'32.42"N</td></tr>
<tr><td>80°58'42.95"E</td><td>80°58'59.46"E</td><td>80°58'52.39"E</td></tr>
<tr><td rowspan="2">2</td><td>26°41'40.88"N</td><td rowspan="2">6</td><td>26°41'24.42"N</td><td rowspan="2">10</td><td>26°41'33.64"N</td></tr>
<tr><td>80°58'59.07"E</td><td>80°58'58.01"E</td><td>80°58'50.31"E</td></tr>
<tr><td rowspan="2">3</td><td>26°41'22.40"N</td><td rowspan="2">7</td><td>26°41'26.85"N</td><td rowspan="2">11</td><td>26°41'34.41"N</td></tr>
<tr><td>80°59'1.37"E</td><td>80°58'59.17"E</td><td>80°58'46.59"E</td></tr>
<tr><td rowspan="2">4</td><td>26°41'22.22"N</td><td rowspan="2">8</td><td>26°41'32.56"N</td><td rowspan="2">12</td><td>26°41'34.64"N</td></tr>
<tr><td>80°58'59.80"E</td><td>80°58'57.56"E</td><td>80°58'44.51"E</td></tr>
</table></td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td colspan="2">125 m AMSL</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td colspan="2">No forest land is involved</td></tr>
<tr><td>vii.</td><td>Water body exists within the project site as well as study area</td><td colspan="2">Project Site: Nil

Study Area:
Water body exists within the Buffer Zone Are: -
Sarda Canal, 0.75 KM, N
Loni Nala, 6.4 KM, E
Bhujiniya Nala, 8.5 KM, N
Bakh Nala, 1.2 KM, W</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 colspan="2">Nil</td></tr>
</table>

21.4.6 The PP informed that the existing project was initially accorded environmental clearance vide file no. 11011/31/1998-IA.II(I) dated 24.03.1999 and J-11011/43/2000-IA.II(I0 dated 20.11.2010. The project was granted expansion in production capacity from 1,08,000 TPA to 144,000 TPA vide letter no. J- 11011/567/2011-IA II (I) dated 12.06.2015 with amendment dated 14.07.2020 and corrigendum to EC amendment on 12.03.2021. The latest consent to operate for the existing unit was accorded by Uttar Pradesh State Pollution Control Board vide lr. no. 111833/UPPCB/Lucknow(LAB)/CTO/air/LUCKNOW/2020 & 111842/UPPCB/ Lucknow(LAB) /CTO/water/LUCKNOW/2020 both dated 4/1/2021 and both valid up to 31/12/22.

21.4.7 Implementation status of the existing EC:

S.no	Facilities	Units	As Per EC dated 12/06/2015	Implementation status	Production as per CTO
1	Asbestos Sheets	1	1,44,000 TPA	Implemented and operational	1,44,000 TPA Asbestos sheets (12000 MT/month)

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

S. No.	Name	Existing Units	Proposed Units	Total (Existing +Proposed)
		Production TPA	Production TPA	Production TPA
1	Asbestos Corrugated & plain sheets	1,44,000	1,06,000	**250000**
2	Pre coloured galvanized MS Profile Sheet (Non Asbestos)	**-**	**25000**	**25000**
3	Captive Cotton Rag Pulp plant	**-**	**2000**	**2000**

21.4.9 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:

S. No.	Raw Material	Quantity required per annum			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Expansion	Total			
1	O.P.C. Cement	58830	51170	110000	A.C.C. & J.P. Associates J. K. Laxmi, Ultra Tech Cement	400-500	Train/ Road
2	Chrysotile Asbestos Fibre	11100	8400	19500	Asbestos fibre is imported and received at Mumbai / Calcutta	1400	Sea and Road
3	Fly Ash	38850	11100	49950	NTPC's Thermal Plants at	530	Road

					Unchahar, Shaktinagar & Rihand		
4	Cotton Rag Pulp	2220	2880	5100	Unnao/from our own captive plant at our premises	60	Road
5	Slag	--	10000	10000	Yamunanagar, Haryana, Ramgarh, Jharkhand	700	Road/ Train

FOR PROFILE SHEET PLANT, PULP PROCESSING UNIT:-

S. No.	Raw Material	Quantity required per annum			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Expansion	Total			
1	Pre painted, Galvanised M.S. coil	-	25000	25000	1. Pre painted M.S coils are Imported from China and received at Mumbai Port. 2. Local purchasefrom market asper requirement a. Essar Steel, Pune b. Asian Coils Mumbai c. Bhushan Steel, Mumbai	1400	Sea / Road/ Train
2	Cotton rag	-	2000	2000	Ludhiana, Delhi, Kanpur	600-700	Road/Train

21.4.10 Existing water requirement is 570 KLD drawn from underground for process, drinking, domestic, plantation etc. out of which 342 KLD is the makeup water. The proposed water requirement for the project is estimated as 390 KLD, out of which 342 KLD of fresh water requirement will be obtained from the ground water source and the remaining requirement of 48 m^3 /day will be met from the recycled water. Ground Water Department (Namami Gange & Rural Supply Department), Ministry of Jal Shakti, Government of Uttar Pradesh issued NOC with Authorization/ No-Objection Certificate No: NOC042035 & NOC013277 is valid upto 20/02/2027. No extra water is required for the proposed expansion.

21.4.11 The power requirement for the project is estimated as 1350 KVA, which will be obtained from the Lucknow Electricity Supply Administration. Solar power plant of 1.1 MW has been

commissioned. Power required for proposed profile sheet plant and pulp processing plant would be 22.4 KW and 111.86 KW respectively which is included in the above

21.4.12 Baseline Environmental Studies:

<table>
<tr><td>Period</td><td>Dec, 2019 to Feb, 2020</td></tr>
<tr><td>AAQ PARAMETERS AT EIGHT LOCATIONS</td><td>• PM_{10} - 51.30 to 115.0 µg/m^3
• $PM_{2.5}$ - 25.50 to 63.0 µg/m^3
• SO_2 - 12.40 to 20.30 µg/m^3
• NO_2 - 14.80 to 29.85 µg/m^3</td></tr>
<tr><td>AAQ parameters µg/m^3 (Incremental GLC)</td><td>• PM_{10} - 3.5 µg/m^3 0.5 km SW
• $PM_{2.5}$ - 1.6 µg/m^3 0.5 km SW
• SO_2 - 0.4 µg/m^3 0.80 km SE
• NO_2 - 0.8 µg/m^3 0.70 km SE</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>• pH - 7.20 to 7.73
• Chloride- 22.0 to 36.0 (mg/l)
• Fluoride- 0.18 to 0.29 (mg/l)
• Iron- 0.100 to 0.210 (mg/l)
• Hardness- 164.0 to 232.0 (mg/l)</td></tr>
<tr><td>Surface water quality at 2 locations</td><td>pH - 7.60 to 7.70</td></tr>
<tr><td>Noise levels</td><td>49.6 to 66.9 dB(A) for the day time and 42.8 to 55.6 dB(A) for the Night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>
<table>
<tr><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>Traffic Load Study Period</td><td>Feb.’2020 (One Day)</td><td></td></tr>
<tr><td>Traffic Load (Baseline) (Pcu/ Day)</td><td>13250 Pcu/Day Appro x</td><td>Two Way</td></tr>
<tr><td>Additional Traffic Load Duri ng Operation Of The Expansi on Project (Pcu/Day)</td><td>52 Trucks/Day(3*52= 156 PCU /Day)</td><td>Two Way</td></tr>
<tr><td>Total Traffic Load During Op eration Of Existing And Prop osed Expansion (Pcu/Day)</td><td>13406 Pcu/Day</td><td>Two Way</td></tr>
<tr><td>Traffic Capacity As Per The Irc 73: 1980 For Highways (Pcu/Day)</td><td>As Per Irc: 64 1990 Recommended Design Service Volum es For 2 Lane Rural R oads Of Plain Terrain Is 15000 Pcu /Day.</td><td>Two Way</td></tr>
</table>
</td></tr>
<tr><td>Flora and fauna</td><td>No threatened, rare, endangered or endemic species were observed during the survey in core zone.</td></tr>
</table>

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

S. No	Type of Waste	Source	Quantity generated (TPA)		Mode of Treatment / Disposal
			EXISTING	PROPOSED	
1.	Empty Fiber Bag	From Bag Opening Device	NIL	NIL	100% Recycled in process, Shredded in the Shredder unit attached to the Bag Opening Device and reused along with the opened fibre
2.	Fiber Dust	From Fiber Dust Collector at ER Mill & BOD	0.03	0.05	100% reused in the process
3.	Process Sludge	From Week-End Tank	25	28	100% reused in the process
4.	Hard Broken Pieces	From Salvaging/ Damages/ Rejects	77.33	90	100% reused in the process after converting into powder form after pulverizing.
5.	Cement Dust	From Cement Dust Collector	1.62	2.25	100% reused in the process
6.	Fly ash Dust	From Fly ash Dust Collector	0.72	1.05	100% reused in the process

21.4.14 Public Consultation:

Details of advertisement given	The advertisement of the PH was given by UPPCB in local daily Newspapers The Times of India (English) & Amar Ujala (Hindi) on 08/09/2021
Date of public consultation	08/10/2021
Venue	Village- Mau, Tehsil- Mohanlalganj, District- Lucknow (U.P)
Presiding Officer	Additional District Magistrate (Land Acquisition-1)
Major issues raised	i. Employment ii. Establishment of new industries iii.Dust suppression iv.Safety equipment v. Maintenance of gaushalas and primary schools

Action Plan as per Ministry's O.M. dated 30.09.2020

Scheme Envisaged on Public Issues Raised During Public Consultation	Year Wise Expenditure (Rs. Lakhs)					Total Expenditure (Rs. Lakhs)
	2022-23	2023-24	2024-25	2025-26	2026-27	
A. Projects / Schemes in Response to Issues Raised During Public Hearing						
Maintenance & up keep of 3 Goshalas in Mohan Lal ganj	3.0	3.0	3.0	3.0	3.0	15.0
Maintenance & up keep of 2	3.0	3.0	3.0	3.0	3.0	15.0

Scheme Envisaged on Public Issues Raised During Public Consultation	Year Wise Expenditure (Rs. Lakhs)					Total Expenditure (Rs. Lakhs)
	2022-23	2023-24	2024-25	2025-26	2026-27	
Primary Schools in Mohan Lal Ganj.						
Total	**6.0**	**6.0**	**6.0**	**6.0**	**6.0**	**30.0**
B. Continuation of On-going CSR Schemes In Response to Public Hearing						
Health Care and Sanitation Works – Distribution of Blankets to needy in Villages and Sanitary Pad Machine to women group in Gram Panchayats.	0.8	0.8	0.8	0.8	0.8	4.0
Infrastructure creation for drinking water supply - Extension of drinking water pipeline by 100 m approximately in 5 Gram Panchayats.	0.8	0.8	0.8	0.8	0.8	4.0
Education and sports infrastructure creation – Supply of Benches / Chairs and Sports goods in 5 Primary Schools	1.5	1.5	1.5	1.5	1.5	7.5
Repair and maintenance of Roads and Drains in 5 Village Panchayats.	1.4	1.4	1.4	1.4	1.4	7.0
Environmental protection (Avenue plantation, Plantation in community areas, etc) in 5 Village Panchayats	0.8	0.8	0.8	0.8	0.8	4.0
Total	**5.3**	**5.3**	**5.3**	**5.3**	**5.3**	**26.5**
Grand Total of All Schemes undertaken in view of Public Consultation	**11.3**	**11.3**	**11.3**	**11.3**	**11.3**	**56.5**

21.4.15 The capital cost of the project is Rs 5.54 Crores and the capital cost of all the environmental management / mitigation and environmental enhancement measures is about 74.85 lakhs with a recurring expenditure of 12.2 lakhs and the CSR expenditure will be Rs.26.5 Lakhs which will be spent in next five years. The employment generation from the proposed project / expansion is 425. The capital cost already spent will be Rs 7,01,63,472. The details of cost for environmental protection measures is as follows:

SN	Mitigation Measures	Implementation Time	Cost (Rs. Lakhs)

		Frame (Capital Expenditure)	Capital	Recurring
A.	**Pollution control Devices for Expansion / Existing Units**	**Within 2 years**	**4.0**	**1.8**
B.	**Occupational Health**			
B1	Employees & Workers	Within 2 years	2.0	2.5
B2	Medical Examinations for Sensitive Receptors at Naveen Public School & Community Health Centre	-	-	0.5
	Total B	**Within 2 years**	**2.0**	**3.0**
C.	**Environmental Monitoring**			
C1	Regular Compliance Monitoring	Within 2 years	1.85	2.7
C2	Additional Work-zone monitoring for Asbestos and Total Dust as part of compliance monitoring	-	-	1.0
	Total C	**Within 2 years**	**1.85**	**3.7**
D.	**Mitigation Measures for Restricting Fugitive Dust Emission Getting Air Borne**			
D1	Re-laying and repair of all Internal Plant Roads	2023-24	12	1
D2	Four times watering of Plant Roads	Recurring	-	1.5
D3	Two mechanised vacuum cleaners.	2022-23	1.0	-
	Total D	**2023-24**	**13**	**2.5**
E.	**Mitigation Measures for Restricting Dispersion of Fugitive Dust**			
E1	Wind Shield Erection over Plant Boundary in sensitive locations	In 3 years	9.5	-
E2	**Strengthening of Existing Green Belt**			
	Strengthening of Existing Green Belt Area & Plant Nursery	In 3 years	14.5	1.2
	Total E	**In 3 years**	**24.0**	**1.2**
F.	**Projects / Schemes in Response to Issues Raised During Public Hearing (Corporate Environmental Responsibility)**			
F1	Maintenance & up keep of 3 Goshalas in Mohan Lal ganj	Total in Five Years	15.0	-
F2	Maintenance & up keep of 2 Primary Schools in Mohan Lal Ganj.	Total in Five Years	15.0	-
	Total F	**Total in Five Years**	**30.0**	**-**
	Grand Total of EMP Cost (A-F)		**74.85**	**12.2**
G.	**Continuation of On-going CSR**	Expenditure for Five		

SN	Mitigation Measures	Implementation Time Frame (Capital Expenditure)	Cost (Rs. Lakhs)	
			Capital	Recurring
	Schemes In Response to Public Hearing	Years		
G1	Health Care and Sanitation Works – Distribution of Blankets to the needy in Villages and Sanitary Pad Machine to women group in Gram Panchayats.	-do-	4.0	-
G2	Infrastructure creation for drinking water supply - Extension of drinking water pipeline by 100 m approximately in 5 Gram Panchayats.	-do-	4.0	-
G3	Education and sports infrastructure creation – Supply of Benches / Chairs and Sports goods in 5 Primary Schools	-do-	7.5	-
G4	Repair and maintenance of Roads and Drains in 5 Village Panchayats.	-do-	7.0	-
G5	Environmental protection (Avenue plantation, Plantation in community areas, etc) in 5 Village Panchayats	-do-	4.0	-
	Total G	**Expenditure for Five Years**	**26.5**	**-**
	Grand Total of EMP & CSR Cost in Rs. Lakhs		**101.35**	**12.2**

21.4.16 The total project area is 26.03 acres (10.533ha.) and green belt / green cover area in and around the project area is 9.882 acres (3.999 ha.). In which about 6299 number of Plants have already been planted. The existing greenbelt will be strengthened by planting additional 2366 number of trees. The green belt / cover after strengthening will be about 38.6% of the total project area. A 10-34 m wide greenbelt 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.

21.4.17 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 Regional Office, MoEFCC

21.4.18 The Status of compliance of earlier EC was obtained from Regional Office, Lucknow *vide* letter no. IV/ENV/UP/IND-140/393/2015/1244, dated 22/02/2021 and IV/ENV/UP/IND-140/393/2015/331, dated 27/10/2021 in the name of M/s. U.P. Asbestos Ltd. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Lucknow vide letter no. UPAL/MoEF-IRO LKO/2021-22/720 dated 01/11/2021. MoEF&CC (RO), evaluated the same and has issued letter with file No. IV/ENV/UP/IND-140/393/2015/335 dated 25/01/2022. The details of the observations made by RO in the report

dated 25/01/2022 along with its re-assessment / present status as furnished by the PP is given as below.

Sl.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by IRO / Response by PP
			EC date	Specific	General	
1	The renewal of communication regarding the merely use of chryosotile white asbestos fibre should be submitted to this office (MOEF&CC)	The renewal of commitment regarding the merely use of the chrysotile white asbestos fibre has been submitted by PAs to this office.	**12/06/2015**	**Yes (ii)**		Project Proponent has submitted written commitment regarding merely use of chrysotile fibre (white fibre) in the manufacturing process carried out at manufacturing facility. **Being complied.**
2	During the site visit, t housekeeping was not found up to the mark. The housekeeping within the plan and premises needs improvement and better housekeeping must be adopted like dust extraction system at all transfer point, plugging of leakages from machines and dust and floors should be clean regularly	As per information submitted by PAs and also observed during site visit, it has been found that PAs have installed plugging of leakages from machines, installation of Fly ash and Cement Silos. They have taken certain steps to improve the housekeeping like betterment of dust extraction system mainly at transfer point of Flyash and Cement feeding point/Silos, Salvage point /pulverizer, carbo cutter and Asbestos cement roofing sheet plant. Cemented roads are found re-laid within the plant premises. As stated by PAs,	**12/06/2015**	**Yes (vii)**		Project Proponent has improved house keeping . The floors are being cleaned regularly as before with the aid of vacuum cleaners but with increased frequency for improved results The floors have also been repaired wherever required. Water sprinkling is done at regular intervals to control dust inside the premises.Cemented roads are being relayed in the premises for better environment. Dust extraction system is operational as before and all the machine points from where leakage can take place are being rechecked from time to time. Project Proponent have taken certain steps which not only helped in keeping premises more clean but helped in protecting environment like installation of fly ash and cement Silos. Project Proponent have taken power connection fro m LESA and have discontinued the use of turbine. All the process waste is being reused. For that purpose ball mill has been installed to grind sludge to make it reusable and have also installed pulveriser to grind hard ground waste to convert it into powder form. Bottom templates have been bought to reduce breakages and waste. Most of the high power electrical motors have been

Sl.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by IRO / Response by PP
			EC date	Specific	General	
		they have discontinued the use of turbines to produce the electricity and taken the connection from LESA. PAs have assured to provide the cemented roads throughout the plant premises in the coming financial year.				replaced by low power mot ors. In addition to above, in order to conserve energy us ed for building, convention al lighting system has been replaced by LED, Roof top solar power plant of 1.1 M W has been installed. **Being complied.**
3	The copy of the certific ate from the supplier of chryosotile fibre that it does notcontain any tox ic ortrace metals should be submitted to this office	The copy of the certificate from the supplier of chrysotile fibre that it does not contain any toxic or trace metals should be submitted to this office. Complied	**12/06/2015**	**Yes (xii)**		Copy of the certificate sub mitted. **Complied.**
4	The action plan for RW H measures should be s ubmitted byPAs to this office	As found during site visit, total 04 nos. of RWI-I Pits are provided within project premises and details of the RWH measures has been submitted by PM to this office. Complied	**12/06/2015**	**Yes (xvi)**		The rain water harvesting s ystem is alreadythere inside the premises. Water is coll ected from roof top through drain pipes and collected in concrete tanks. The water c ollected thus is pumped to o verhead tank and from there it is used in process, wet m opping and dust suppressio n. The ground water collect ed through drains is recharg ed into recharge well. **Complied.**
5	The information abo ut the allocation of sepa rate budget for the impl ementation on the com mitments made to the public during publichea ring should be submitt ed to this office	As per submitted information by PAs and also observed during site visit. the commitment made during public hearing related to	**12/06/2015**	**Yes (xvi)**		No commitments were mad e during the Public Hearing which took place on 23.08. 2015 and presided over by ADM (Admin) Shri Davend ra Kumar Pandey. During t he proceedings regular natu re of jobs were advised to b e done by project proponent related to the expansion, he nce no seperate budget was

Sl.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by IRO / Response by PP
			EC date	Specific	General	
		providing Job employment, storage of hazardous waste and its use in ball mill, better housekeeping, installation of solar plant of 1.1 MW and power connection from LESA has been complied with proper handling of Asbestos, fly ash and cement. Complied.				allocated for that purpose. I n this regard:- 1. No change was done in t he machinery except chang e in diameter of the sheet fo rming drum. 2. A separate shed was mad e for keeping the hazardous waste and was stored there only. 3. The hazardous waste/slu dge was being given to desi gnated authorised facility fo r disposal and for reuse in t he circuit. 4. The effluent which consti tutes water and a mix of ra w material is being reused i n the process for preparatio n of Slurry. 5. The water is being sprin keld on regular basisinside t he premises to suppress fly ash and Cement dust. 6. Till the boiler(turbine) w as operational only rice hus k was being used as a fuel. Since project proponent ha ve taken power connection from LESA and have also i nstalled roof top solar plant of 1.1 MW, the use of boile r has been discontinued and the plant is now being run by either of these two sourc es 1. For opening of fibre bags, automatic bag opening device with bag shredder was already there and was of appropriate capacity hence no changes were done 2. Till the boiler (turbine) was in use no change was done in it‘s construction plan and no alternate fuel was being used (now discontinued because project proponent have taken power connection

Sl.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by IRO / Response by PP
			EC date	Specific	General	
						and installed solar power plants). 3. Water is sprinkled in the premises on regular basis to suppress the dust due to movement of trucks for loading and unloading of raw materials & finished goods 4. Asbestos, fly ash and cement are being handled as per the guidelines. 5. Dust masks are being provided to the workers and staff. 6. The green belt was being maintained in the area prescribed by MoEF but now consequent to Reduction in factory area project proponent would maintain the green belt as per the amended TOR. **Complied.**
6	As stated by PAs green belt area is more than 3 3% of the total plot are a. However, the details about the species plante d, their no. and year of plantation with survival status with covered are a should be submitted t o this office	As per submitted information by PAs, the development of the green belt has been done around 10.41 acre, which is about 40% of the available total plot area (26.03 acre) for Asbestos Industry as per the EC amendment vide letter no. - 11011/567/201 l-IA.II(I) dated 14.07.2020. The details of plant species planted with their no. have been submitted	**12/06/2015**	**Yes (xvii)**		As per the amended TOR we have to maintain 40% of the plot area of 26.03 acres which comes to 10.41 acres a green belt with a tree density of 2500 trees per hectare i.e project proponent need to have around 10500 trees. During the rainy season 4000 more trees have been planted in addition to existing trees. Out of these 4000 trees, 2500 trees were provided by Forest Department free of cost and rest were purchased by project proponent from different nurseries. Species planted with their nos mentioned against them: Gulmohar 550 nos Bargad 20 nos Shaghan 120 nos

Sl.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by IRO / Response by PP
			EC date	Specific	General	
		by the PAs. Complied.				Neem 275 nos Imli 60 nos Pakad 50 nos Kadam 55 nos Gulachin champa 300 nos pipal 40 nos Savni 105 nos Amrud 100 nos Karanji 800 nos Kasia 100 nos Babul 200 nos Shisham 430 nos Manokami 110 nos Ashok 70 nos Teak 200 nos Singri 600 nos **Complied.**
7	The item wise details a long with time bound a ction plan regarding the 5% of the total cost of the project earmarked t owards enterprise socia l commitments based o n public hearing issues should be submitted to t his office	As per submitted information by PAs, Enterprises social commitment based on public hearing are being implemented. Item wise detail has been given as stated above by PAs. Being complied	**12/06/2015**	**Yes (xviii)**		Item wise expenses amounting to Rs. 8.50 lac incurred towards Enterprises Social Commitment from 01.01.2016 to 31.03.2021 is as follows :- Health care & Drinking water Rs 2.00 lac Education & Communication Rs 2.00 lac Alternative livelihood & environmental protection Rs 1.50 lac Infrastructure develpment Rs 1.50 lac Sports & culture Rs 1.00 lac **Being complied.**
8	The details of the fund earmarked for soci o - economic development and action plan is to be submitted to regional office	The detail of the expenditure done for socio-economic development of year has been submitted for year 2020-21 with relevant supporting enclosures.	**12/06/2015**		**Yes (vii)**	During the year 2020-21 around Rs 9.50 lac were spent towards CSR under different heads. **Complied.**

Sl.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by IRO / Response by PP
			EC date	Specific	General	
9	However, the detailed report should be submitted on implementation and expenditure for environmental safeguards to this regional office	As per submitted document by PAs, total Rs. 7,01,62,972 already incurred for environmental safeguards as stated above for various purposes. Being complied.	**12/06/2015**		**Yes (ix)**	Total cost already incurred on implemantion for environmental safeguard is Rs 7,01,62,972/- haeadwise expenditure is given below: wet fibre opener Rs 75,782 Reclaimation machine Rs 1,16,824 Bag Opening Machine Rs 17,61,770 Bag Opening Machine Rs 12,98,520 25" pulveriser machine Rs 1,75,500 Pollution control equipment Rs 8,08,000 Pollution control Rs 3,90,658 Occupational health Rs 1,89,845 Environmental monitoring Rs 1,26,091 Solar Power Plant Rs 6,01,69,982 Cement Silos Rs 50,50,500 **Being complied.**
10	The copy of the consent should be submitted to this office.Further, the renewal of the consent should be also obtained from the concerned authority	As per document submitted by PAs, PAs have obtained consent to operate (CTO) for Air and Water from UPPCB vide letter no. 111833/UPPCB/Lucknow (LAB)/CTO/air/LUCKNOW/2020 and letter no. I 11833/UPPCB/Lucknow(LAB)/CTO/air/LUCKNOW/2020 respectively	**12/06/2015**		**Yes (i)**	Copies of consent both air and water for the period from 01.01.2021 to 31.12.2022 are submitted **Complied.**

Sl.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by IRO / Response by PP
			EC date	Specific	General	
		both dated 04.01.2021 valid till 31.12.2022. Complied.				

21.4.19 The proposal was initially considered in the 7th meeting of the EAC for Industry-I sector held on 13-14th June, 2022 wherein the Committee deferred the proposal on account of technical shortcomings. The deliberations and recommendations of the EAC are as follows:

Deliberations by the Committee (EAC during 13-14th June, 2022)

21.4.20 The Committee noted the following:

1. The Committee noted that EIA/EMP report needs to be improved. Proper photographs should be submitted.
2. The Committee noted that the baseline data and incremental GLC due to the proposed project are above the NAAQ standards at many locations and detailed mitigation measures are not provided in EIA/EMP report. PP shall revise the mitigation measures on this high particulate matter.
3. The Committee suggested to carry out mineralogical study of Particulate Matter as the instant project involves the production of asbestos.
4. The Committee noted that action plan proposed to address the public hearing issued is not in accordance to Ministry's O.M dated 30/09/2020.PP shall revise the action plan in accordance with the said OM.
5. At plant boundary adjacent to the sensitive receptors sufficient dense green belt shall be developed for minimising the impact of the project on the habitation. EAC noted that the green belt has not adequately developed by the PP though they had obtained EC in 1999, 2010 and later in 2015.
6. Action plan for monitoring the sensitive receptors for adverse impact shall be submitted.
7. The housekeeping of the Unit does not appear satisfactory.
8. The Committee noted that this is existing Industry is going to use 19500 tons/MTPA Chrysolite Asbestos Fibers. As Asbestos fibres are crushed, ground mixed with OPC cement and Asbestos Corrugated & Plan sheets 250000 TPA will be produced. There are chances of fugitive emissions that might occur in the unloading of Chrysotile Asbestos area, crushing, grinding and mixing areas as well at all other production sites. Total dust should be characterized and asbestos concentrations should be evaluated and compared with Amorphous silicates permissible limit of 10 mg/m3 as per Indian Factories Act, 1948. Similarly, the concentration of Chrysolite fibres should be within 1.0 fiber/cc of air. Similarly, the Portland cement dust (total dust) should be within 10 mg/m3, Total dust containing less than 1% quartz as per Indian Factories Act, 1948. If

concentrations found higher than these values in the process plant areas then suitable fibre control-engineering controls applicable to asbestos products manufacturing should be installed at unloading, charging, grinding and mixing areas. The workers should be subjects for medical examination to diagnose asbestosis disease by qualified public health specialist or pulmonologist.

9. The total weight of suspended particulate matter generated in the process and the percentage by the pollution control systems, must be reported by the PP in the revised application.

Recommendations of the Committee (EAC during 13-14th June, 2022)

21.4.21 In view of the foregoing and after detailed deliberations, the Committee recommended that proposal to be deferred and the proposal may be re-considered based on the submission of above-mentioned information enumerated at para no. 21.4.20. The case should be placed before the committee after getting this requisite information.

21.4.22 The proponent submitted the ADS reply vide letter dated 21.12.2022 uploaded on PARIVESH on 21.12.2022. Point-wise reply of ADS is given as below:

S. No.	ADS Point	Reply/ Response of PP
1.	The Committee noted that EIA/EMP report needs to be improved. Proper photographs should be submitted.	EIA/EMP has been revised and the uploaded report is with improved photographs, mitigation measures, ToR compliance and time bound action plan for addressing issues raised by public during public hearing.
2.	The Committee noted that the baseline data and incremental GLC due to the proposed project are above the NAAQ standards at many locations and detailed mitigation measures are not provided in EIA/EMP report. PP shall revise the mitigation measures on this high particulate matter.	The mitigation measures proposed to limit PM levels at the two AAQ stations within NAAQ standards, is a **two-pronged approach** as follows: **A. Reducing generation of fugitive emissions from the project.** **B. Limiting wind speed (entering plant area & that leaving project area) for arresting fugitive emissions close to the source and providing a green belt sink for PM sequestration.** **A. Mitigation Measures for Reducing the Fugitive Emissions Generation** 1. The earlier "plant gate" at the NNW corner was connected to plant and other areas with unpaved road. It has been closed and the main plant gate has now been shifted to other end of the Western boundary, which is connected to plant with cemented road. 2. All internal plant roads made of cement are being re-laid and will be completed in the financial year 2023-24 with a capital and recurring expenditure of **Rs. 9.0 lakhs** and **Rs. 3.0 lakhs**, respectively. A recurring expenditure of **Rs. 1,00,000/-** per annum will be incurred for

S. No.	ADS Point	Reply/ Response of PP
		repair of wear and tear of plant roads. 3. Frequency of water sprinkling on roads (with 10KL tankers) will be increased from the earlier practice of once per day to four per day (during working hours) with an expenditure of **Rs. 1,50,000/-/annum.** 4. The shop floor dust (godowns, raw material section etc) sweeping will be undertaken with mechanised vacuum cleaners thrice per day along with wet mopping once per day as against vacuum / wet mopping once per day. Two additional mechanized vacuum cleaners will be procured within the financial year 2022-23 with an expenditure of **Rs. 1.0 lakhs/-**. 5. Regular maintenance and inspecting processes ("industrial hygiene") will be practiced to address fugitive emissions where applicable. **B. <u>Mitigation Measures: Erecting wind shield (wind breakers) at vulnerable areas and strengthening of green belt to reduce wind speed (entering & leaving project area) vis-a-vis reducing fugitive emissions carried by winds and to train the winds in to greenbelt to scavenge / arrest fugitive emissions close to the source</u>** Wind shield will be erected at vulnerable locations, above the project boundary with effective height 11.5 to 13 feet (boundary + wind shield). The wind shield will be perforated with 6cm diameter holes 1.0m apart (from top to bottom and left to right), as follows : a. Along **N-NW-W** Corner of project boundary at Old Plant gate near Lucknow – Raebareli NH-30. The effective height of the wind shield will be 12.6 feet and with a length of 90 meters. b. Boundary between the Old and New Plant Gate is "Godown" building, which by default is acting as wind shield along the Western boundary with a height of 9m and length of 125m along western boundary up to New Main Gate. c. Along the W-SW-S Project Boundary Corner near New Plant gate (opposite NH-30). The effective height of the wind shield will be 13 feet with a length of 103 meters. d. Wind shield will be erected along Southern and Eastern Project Boundary opposite & adjacent to Plant Building and up to SE corner of project boundary with an effective height of 11.5 feet and with a length of 110 meters.

S. No.	ADS Point	Reply/ Response of PP

e. A total expenditure of **Rs. 9.5 lakhs** will be spent on erecting wind shield at strategic locations in three years.

f. To protect the sensitive locations like Public School and Community Centre on the S-SE-E sector from plant fugitive emissions, the existing greenbelt will be further strengthened by planting additional 2366 tree saplings with an expenditure of **Rs. 7.1 lakhs**.

g. A total expenditure of **Rs. 14.5 lakhs** will be spent in three years on strengthening of existing greenbelt. The recurring cost on maintaining the existing and strengthened green belt will be **Rs. 1.0 lakhs** per annum.

h. A plant nursery will be developed with a capital expenditure of Rs. 1.2 lakhs (which will be incurred during 2022-23 and 2023-24) with a recurring expenditure of **Rs. 0.2 lakhs** per annum.

The above action plan will be implemented with a total capital cost of **Rs. 37 lakhs** and recurring expenditure of **Rs. 3.7 lakhs**

Summary Cost of Various Measures to Reduce Air Pollution and Meet NAAQS in the Surrounding Area

SN	Mitigation Measures	Implementation Time Frame	Cost (Rs. Lakhs)	
			Capital	Recurring
A.	**Mitigation Measures for Restricting Fugitive Dust Emission Getting Air Borne**			
1.	Re-laying and repair of all Internal Plant Roads	2023-24	12	1
2.	Four times watering of Plant Roads	Recurring	-	1.5
3.	Two mechanised vacuum cleaners.	2022-23	1.0	-
	Total		**13**	**2.5**
B.	**Mitigation Measures for Restricting Dispersion of Fugitive Dust**			
B1	**Wind Shield in Sensitive Locations**			

<table>
<tr><th>S. No.</th><th>ADS Point</th><th>Reply/ Response of PP</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>4.</td><td>Wind Shield Erection over Plant Boundary</td><td>3 years</td><td>9.5</td><td>-</td></tr>
<tr><td></td><td>Total</td><td></td><td>9.5</td><td>-</td></tr>
<tr><td>B2</td><td>Strengthening of Existing Green Belt</td><td></td><td></td><td></td></tr>
<tr><td>5.</td><td>Strengthening of Existing Green Belt Area</td><td>3 years</td><td>14.5</td><td>1.0</td></tr>
<tr><td>6.</td><td>Plant Nursery</td><td>Recurring</td><td>-</td><td>0.2</td></tr>
<tr><td></td><td>Total</td><td></td><td>14.5</td><td>1.2</td></tr>
<tr><td colspan="2">Grand Total</td><td>-</td><td>37</td><td>3.7</td></tr>
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</td></tr>
<tr><td>3.</td><td>The Committee suggested to carry out mineralogical study of Particulate Matter as the instant project involves the production of asbestos.</td><td>IIT-Kanpur were engaged to conduct a mineralogical study of PM from the production areas of the plant.

Four samples were taken from project area, viz. Plant Main gate, Loading & unloading area and Near Pump House. The samples were analysed for their mineralogical composition using X-Ray Diffraction method. The results indicated presence of Quartz, Muscovite, Berlinite, Albite, Magnesium Silicate and Calcium, Iron, and Magnesium Carbonate.</td></tr>
<tr><td>4.</td><td>The Committee noted that action plan proposed to address the public hearing issues is not in accordance to Ministry’s O.M dated 30/09/2020. PP shall revise the action plan in accordance with the said OM.</td><td><u>Revised Action Plan to Address Issues Raised During Public Consultation</u>

Public Hearing was held on 08.10.2021 at 1.00 P.M at M/s U.P. Asbestos Limited (UPAL), Village-Mau, Tehsil-Mohanlalganj, Lucknow (U.P.) under the chairmanship of ADM (Land Acquisition - 1) and assisted by RO, UPPCB. The meeting was attended by 67 persons.

The proposed project related to increase in production capacity of Asbestos Corrugated & Plain Sheets to from 1.44,000 MTPA to 2,50,000 MTPA, and for installation of 25000 TPA capacity Pre-coloured, galvanized MS Profile Sheet plant (non-asbestos) along with 2000 TPA capacity Captive Rag Pulp plant (for processing Cotton Rag). The estimated cost of the expansion project is Rs 5.54 crores.

The total cost of activities / schemes planned in response to public demand during public hearing is Rs. 30.0 lakhs, which will be spent over five years and Rs. 26.5 lakhs will be spent as continuation of CSR schemes in response to issues raised during public hearing.

<u>Action Plan - Based on Issues Raised During Public Consultation</u>
<table>
<tr><th>Scheme Envisaged</th><th>Year Wise Expenditure (Rs. Lakhs)</th><th>Total</th></tr>
</table>
</td></tr>
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S. No.	ADS Point	Reply/ Response of PP						
		on Public Issues Raised During Public Consultation	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**Expenditure (Rs. Lakhs)**
		C. Projects / Schemes in Response to Issues Raised During Public Hearing						
		Maintenance & up keep of 3 Goshalas in Mohan Lal ganj	3.0	3.0	3.0	3.0	3.0	15.0
		Maintenance & up keep of 2 Primary Schools in Mohan Lal Ganj.	3.0	3.0	3.0	3.0	3.0	15.0
		Total	**6.0**	**6.0**	**6.0**	**6.0**	**6.0**	**30.0**
		D. Continuation of On-going CSR Schemes In Response to Public Hearing						
		Health Care and Sanitation Works – Distribution of Blankets to needy in Villages and Sanitary Pad Machine to women group in Gram Panchayats.	0.8	0.8	0.8	0.8	0.8	4.0
		Infrastructure creation for drinking water supply - Extension of drinking water pipeline by 100 m approximately in 5 Gram Panchayats.	0.8	0.8	0.8	0.8	0.8	4.0
		Education and sports infrastructure creation – Supply of Benches / Chairs and Sports goods in 5 Primary Schools	1.5	1.5	1.5	1.5	1.5	7.5
		Repair and maintenance of Roads and Drains	1.4	1.4	1.4	1.4	1.4	7.0

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<tr><th>S. No.</th><th>ADS Point</th><th>Reply/ Response of PP</th></tr>
<tr><td></td><td></td><td>
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<tr><td>in 5 Village Panchayats.</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Environmental protection (Avenue plantation, Plantation in community areas, etc) in 5 Village Panchayats</td><td>0.8</td><td>0.8</td><td>0.8</td><td>0.8</td><td>0.8</td><td>4.0</td></tr>
<tr><td>Total</td><td>5.3</td><td>5.3</td><td>5.3</td><td>5.3</td><td>5.3</td><td>26.5</td></tr>
<tr><td>Grand Total of All Schemes undertaken in view of Public Consultation</td><td>11.3</td><td>11.3</td><td>11.3</td><td>11.3</td><td>11.3</td><td>56.5</td></tr>
</table>
</td></tr>
<tr><td>5.</td><td>At plant boundary adjacent to the sensitive receptors sufficient dense green belt shall be developed for minimising the impact of the project on the habitation. EAC noted that the green belt has not adequately
developed by the PP though they had obtained EC in 1999, 2010 and later in 2015.</td><td>The total project area is 26.03 acres (10.533ha.) and green belt / green cover area in and around the project area is 9.882 acres (3.999 ha.). In which about 6299 number of Plants have already been planted. The existing greenbelt will be strengthened by planting additional 2366 number of trees. The green belt / cover after strengthening will be about 38.6% of the total project area.

The proposed action plan for erection of windshield at vulnerable locations and strengthening of green belt, will improve the AAQ in surrounding areas at sensitive locations.

In addition, request have been made to SDM, wherein he has agreed to provide additional government land outside plant and close to sensitive receptors so that patches of thick green cover can be developed.</td></tr>
<tr><td>6.</td><td>Action plan for monitoring the sensitive receptors for adverse impact shall be submitted.</td><td>Under the compliance monitoring requirement of UPPCB and Regional MoEFCC, The Baseline AAQ station Near Plant Old Gate and Mohan Lal Ganj will be regularly monitored and the effectiveness of the action plan / mitigation measures undertaken will be evaluated and suitable additional mitigation measures will be adopted.

Environmental Monitoring cost envisaged for FY 2022 – 23 and 2023 – 24 is envisaged to about Rs. 1.85 lakhs with a recurring expenditure of Rs. 2.5 lakhs per annum as recurring amount.</td></tr>
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<tr><th>S. No.</th><th>ADS Point</th><th>Reply/ Response of PP</th></tr>
<tr><td></td><td></td><td>The annual medical examinations held as part of Occupation Health and Safety programme for staff and workers will be extended to sensitive receptor areas – like Naveen Public School (Staff & Students) and Community Health Centre (Staff). The medical examination will be conducted once per year, for which a total of long serving 5 representatives (staff and student) will be taken for health monitoring and the records will be kept for comparison with examination results in subsequent years. An additional recurring expenditure of Rs. 50,000/- per annum will be allocated towards the same.</td></tr>
<tr><td>7.</td><td>The housekeeping of the Unit does not appear satisfactory.</td><td>The water sprinkling on roads will be increased from once per day to four times per day. The shop floor dust (godowns, raw material section etc) sweeping will be undertaken with mechanised vacuum cleaners thrice per day along with wet mopping once per day as against wet mopping once per day and through vacuum cleaners once per day. Two additional such vacuum cleaners will be procured within the financial year 2022-23.

Regular awareness / training programme will be undertaken for staff and workers towards housekeeping and its importance in Occupational Health and Safety of staff / workers.</td></tr>
<tr><td>8.</td><td>The Committee noted that this is existing Industry is going to use 19500 tons/MTPA Chrysolite Asbestos Fibres. As Asbestos fibres are crushed, ground mixed with OPC cement and Asbestos Corrugated & Plan sheets 250000 TPA will be produced. There are chances of fugitive emissions that might occur in the unloading of Chrysotile Asbestos area, crushing, grinding and mixing areas as well at all other production sites.</td><td>For the proposed expansion units, the pollution control devices are envisaged, amounting to Rs. 4.0 lakhs with a recurring expenditure of Rs. 1.8 lakhs. The installed pollution control devises and measures in the existing and for proposed expansion is given in Tables A & B below:
<u>Table A: Installed Pollution Control Devices in the Plant</u>
<table>
<tr><th>SN.</th><th>Location</th><th>Attached Pollution Control Device</th></tr>
<tr><td>1.</td><td>Asbestos Fibre Grinding Mill Stack – I & II</td><td>Cyclone with Pulse-jet Bag-Filter & Blower</td></tr>
<tr><td>2.</td><td>Stack of Asbestos Milling Section Plant-III</td><td>Cyclone with Pulse-jet Bag-Filter & Blower</td></tr>
<tr><td>3.</td><td>Cement Silo – I, II & II</td><td>Cyclone with Pulse-jet Bag-Filter & Blower</td></tr>
<tr><td>4.</td><td>Fly-ash Silo – I, II & III</td><td>Cyclone with Pulse-jet Bag-Filter & Blower</td></tr>
<tr><td>5.</td><td>Pulveriser</td><td>Cyclone with Pulse-jet Bag-Filter & Blower</td></tr>
</table>
<u>Table B : Work Zone Environment Locations and Adopted Pollution Control Measures to Control Fugitive Emission</u>
<table>
<tr><th>SN.</th><th>Location</th><th>Associated Pollution Control Measures</th></tr>
<tr><td>1.</td><td>Fibre Godown</td><td>Asbestos bags received in (wooden pallets / handled with forklift) in impervious compressed packed HDPE bags covered by shrink or stretch wrapped</td></tr>
</table>
</td></tr>
</table>

S. No.	ADS Point	Reply/ Response of PP

Total dust should be characterized and asbestos concentrations should be evaluated and compared with Amorphous silicates permissible limit of 10 mg/m^3 as per Indian Factories Act, 1948. Similarly, the concentration of Chrysolite fibres should be within 1.0 Fibre/cc of air. Similarly, the Portland cement dust (total dust) should be within 10mg/m^3, Total dust containing less than 1% quartz as per Indian Factories Act, 1948. If concentrations found higher than these values in the process plant areas then suitable fibre control-engineering controls applicable to asbestos products manufacturing should be installed at unloading, charging, grinding and mixing areas. The workers should be subjects for medical examination to diagnose asbestosis disease by qualified

		plastic for extra protection during transportation.
2.	Cement Silos – Unloading Area	Cement received in Silos connected to cyclone with Bag-filter and blower
3.	Fly-ash Silos – Unloading Area	Fly-ash received in Silos connected to cyclone with Bag-filter and blower
4.	Fibre Milling Area	Asbestos fibre milling (in wet condition) in closed system maintained under negative pressure and connected to cyclone with pulse jet bag filter attached to blower followed by wet-scrubbing.
5.	Beater / Agitator Plant	Homogenization / mixing of Cement / Fly-ash / Fibres with water (enclosed & wet condition)
6.	Sheet Forming Drum Plant	Asbestos fibres wet and encapsulated with cement coating
7.	Near Hard Ground Plant (Pulveriser)	Enclosed (grinding of waste AC sheets) attached to Cyclone with Bag-filter and Blower.
8.	Curing Area	Asbestos fibres hardened with cement / fly-ash
9.	Yard	Asbestos fibres hardened with cement / fly-ash

Work Zone Environment Monitoring

To address the concerns of EAC on work zone environment, additional monitoring was carried out at locations as given in **Table C**.

From **Table C**, it can be seen that the asbestos fibre count, port land cement dust (<1% free silica) and amorphous silica in the work environment at different locations are well below the prescribed norms.

Table C : Work Zone Environment Monitoring Results during Additional Studies, Date of Monitoring 14.08.2022

SN.	Location	Asbestos Fibre (No. Fibres/cm^3)	Total Dust (mg/m^3)
1.	Fibre Godown	0.062	-
2.	Cement Silo I – Unloading Area	-	6.5
3.	Flyash Silo I– Unloading Area	-	7.7
4.	Near Fibre Milling Area - I & II	0.074	4.0
5.	Near Beater / Agitator Plant - I	0.066	5.6
6.	Near Sheet Forming Drum Plant - I	0.064	4.8

<table>
<tr><th>S. No.</th><th>ADS Point</th><th>Reply/ Response of PP</th></tr>
<tr><td></td><td>public health specialist or pulmonologist.</td><td>
<table>
<tr><td>7.</td><td>Near Hard Ground Plant (Pulveriser)</td><td>0.060</td><td>7.6</td></tr>
<tr><td>8.</td><td>Curing Area</td><td>0.057</td><td>6.3</td></tr>
<tr><td>9.</td><td>Yard</td><td>0.055</td><td>7.1</td></tr>
<tr><td colspan="2">Specific Conditions EC F.No. J-11011/567/2011 – IA II (I) dated 12.06.2015</td><td>0.1</td><td>-</td></tr>
<tr><td colspan="2">Permissible Limit as Per factories Act 1948</td><td>1.0</td><td>10</td></tr>
</table>

Moreover, the work zone environment will be monitored periodically to assess the effectivity of adopted pollution control devices and pollution control measures for controlling fugitive emissions in the plant work environment and an additional monitoring cost for work zone monitoring for asbestos fibre and total dust as per locations specified in Table C is envisaged as Rs. 1.0 lakhs per annum.

In case concentrations of pollutants are exceeding the respective norms then suitable fibre control-engineering controls applicable to asbestos products manufacturing will be installed at unloading, charging, grinding and mixing areas.

Further, the workers are regularly undergoing medical examination to diagnose asbestosis disease by qualified public health specialist (pulmonologist) and records are maintained for analysis.</td></tr>
<tr><td>9.</td><td>The total weight of suspended particulate matter generated in the process and the percentage by the pollution control systems, must be reported by the PP in the revised application.</td><td>Air Pollution Control Systems (APCS) are attached to asbestos fibre section, cement feeding section, fly ash feeding section, and Pulverization section.

There are five sets of Pulse Jet Bag Houses installed (as part of the Dust extraction systems complete with ID Fans, dust extraction ducts and hoods, collection systems etc) in all the dust laden areas of the plant. Exhausts air from each of the above bag filters are vented out through chimney.

The locations of Bag Filters, inlet and outlet dust concentrations are as follows:
1. Attached to Asbestos Fibre Section: Automatic Bag Opening device (enclosed and sealed area) - Inlet dust concentration: 1.8 gm/Nm^3, outlet: < 10 mg/NM^3.
2. Attached to Cement Feeding Section: Silo venting - cement silo - Inlet dust concentration: 3 gm/NM^3, outlet: 20 mg/NM^3.
3. Attached to Fly ash Feeding Section: Silo venting- fly ash silo - Inlet dust concentration: 2.4 gm/NM^3, outlet: 20mg/NM^3.</td></tr>
</table>

S. No.	ADS Point	Reply/ Response of PP
		4. Attached to Pulverization Section: Pulverizer - Inlet dust concentration: 2.14 gm/NM^3 and outlet < 15mg/NM^3. 5. Carbo Cutter – Inlet dust concentration: 2.14 gm/Nm^3 and outlet<15 mg/Nm^3

Overall Cost of Environmental Management Plan for the Proposed Expansion

The estimated cost of the expansion project is Rs 5.54 crores. The overall cost of environmental management plan for the proposed expansion project as mentioned in EIA/EMP report and additional mitigation measures proposed in response to EAC observations in the meeting dated 13.06.2022 are given in Table D.

The capital cost of all the environmental management / mitigation and environmental enhancement measures is about 74.85 lakhs with a recurring expenditure of 12.2 lakhs and the CSR expenditure will be Rs.26.5 Lakhs which will be spent in next five years.

Table D : Overall Environmental Management Cost and CSR Cost for the Proposed Expansion Project

SN	Mitigation Measures	Implementation Time Frame (Capital Expenditure)	Cost (Rs. Lakhs)	
			Capital	Recurring
H.	Pollution control Devices for Expansion / Existing Units	Within 2 years	4.0	1.8
I.	Occupational Health			
B1	Employees & Workers	Within 2 years	2.0	2.5
B2	Medical Examinations for Sensitive Receptors at Naveen Public School & Community Health Centre	-	-	0.5
	Total B	Within 2 years	2.0	3.0
J.	Environmental Monitoring			
C1	Regular Compliance Monitoring	Within 2 years	1.85	2.7
C2	Additional Work-zone monitoring for Asbestos and Total Dust as part of compliance monitoring	-	-	1.0
	Total C	Within 2 years	1.85	3.7
K.	Mitigation Measures for Restricting Fugitive Dust Emission Getting Air Borne			
D1	Re-laying and repair of all Internal Plant Roads	2023-24	12	1
D2	Four times watering of Plant Roads	Recurring	-	1.5
D3	Two mechanised vacuum cleaners.	2022-23	1.0	-
	Total D	2023-24	13	2.5

S. No.	ADS Point	Reply/ Response of PP			
	L.	Mitigation Measures for Restricting Dispersion of Fugitive Dust			
	E1	Wind Shield Erection over Plant Boundary in sensitive locations	In 3 years	9.5	-
	E2	Strengthening of Existing Green Belt			
		Strengthening of Existing Green Belt Area & Plant Nursery	In 3 years	14.5	1.2
		Total E	In 3 years	24.0	1.2
	M.	Projects / Schemes in Response to Issues Raised During Public Hearing (Corporate Environmental Responsibility)			
	F1	Maintenance & up keep of 3 Goshalas in Mohan Lal ganj	Total in Five Years	15.0	-
	F2	Maintenance & up keep of 2 Primary Schools in Mohan Lal Ganj.	Total in Five Years	15.0	-
		Total F	Total in Five Years	30.0	-
		Grand Total of EMP Cost (A-F)		74.85	12.2
	N.	Continuation of On-going CSR Schemes In Response to Public Hearing	Expenditure for Five Years		
	G1	Health Care and Sanitation Works – Distribution of Blankets to the needy in Villages and Sanitary Pad Machine to women group in Gram Panchayats.	-do-	4.0	-
	G2	Infrastructure creation for drinking water supply - Extension of drinking water pipeline by 100 m approximately in 5 Gram Panchayats.	-do-	4.0	-
	G3	Education and sports infrastructure creation – Supply of Benches / Chairs and Sports goods in 5 Primary Schools	-do-	7.5	-
	G4	Repair and maintenance of Roads and Drains in 5 Village Panchayats.	-do-	7.0	-
	G5	Environmental protection (Avenue plantation, Plantation in community areas, etc) in 5 Village Panchayats	-do-	4.0	-
		Total G	Expenditure for Five Years	26.5	-
		Grand Total of EMP & CSR Cost in Rs. Lakhs		101.35	12.2

Deliberations by the Committee

21.4.23 The Committee noted the following:

1. The instant proposal is for increase in production capacity of Asbestos Corrugated & plain Sheets from 1,44,000 MTPA to 2,50,000 MTPA and installation of pre-coloured galvanized MS profile sheet plant (non-asbestos) of 25000 MTPA and Captive Cotton Rag Pulp Plant of capacity 2000 MTPA.

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 existing project was initially accorded environmental clearance vide file no. 11011/31/1998-IA.II(I) dated 24.03.1999 and J-11011/43/2000-IA.II(I0 dated 20.11.2010. The project was granted expansion in production capacity from 1,08,000 TPA to 144,000 TPA vide letter no. J- 11011/567/2011-IA II (I) dated 12.06.2015 with amendment dated 14.07.2020 and corrigendum to EC amendment on 12.03.2021. The latest consent to operate for the existing unit was accorded by Uttar Pradesh State Pollution Control Board vide lr. no. 111833/UPPCB/Lucknow(LAB)/CTO/air/LUCKNOW/2020 & 111842/UPPCB/ Lucknow(LAB)/CTO/water/LUCKNOW/2020 both dated 4/1/2021 and both valid up to 31/12/22.

6. The total project area is 10.533 ha. Land has already been acquired and under the possession of the company. The expansion will take place in the existing land. No extra land is required for the proposed expansion.

7. The existing water requirement is 570 KLD drawn from underground for process, drinking, domestic, plantation etc. out of which 342 KLD is the makeup water. The proposed water requirement for the project is estimated as 390 KLD, out of which 342

KLD of fresh water requirement will be obtained from the ground water source and the remaining requirement of 48 m^3 /day will be met from the recycled water.

8. Bakh Nala (1.2 KM, W), Sarda Canal (0.75 KM, N), Loni Nala (6.4 KM, E) and Bhujiniya Nala (8.5 KM, N) are within 10 Km. radius of the plant site. Few ponds exist within 10 Km radius. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.

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

10. The EAC noted that the green belt / green cover area in and around the project area is 9.882 acres (3.999 ha.) in which about 6299 number of Plants have already been planted. The existing greenbelt will be strengthened by planting additional 2366 number of trees. The green belt / cover after strengthening will be about 38.6% of the total project area. The Committee deliberated on the action plan and budget allocation for green belt development and is of the view that the greenbelt shall be completed within a span of one year.

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

12. The Committee deliberated upon the certified compliance report of IRO along with action taken on the observations of IRO and review report of IRO and found it satisfactory.

13. 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.

14. The Committee deliberated on the ADS reply submitted by the PP and found it satisfactory. The Committee also appreciated the PP/consultant for their in-depth study and tidy presentation.

15. 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.

16. 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:

21.4.24 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of 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 company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

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

iii. The activities and the action plan proposed by the project proponent to address the issues raised during public hearing and socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

iv. Occupational health studies for all staff once in six months shall be carried out.

v. Fiber monitoring shall be carried out at the work zone and around the premises once in three months.

vi. PM level shall be less than 30 mg/Nm^3.

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

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

ix. The project proponent shall adhere to the prescribed BIS standards and laws regarding use and handling of asbestos, safety of employees etc. Raw materials like asbestos fibre and cement shall be transported in closed containers. Asbestos fibre shall be brought in pelletized form in- impermeable bags and under compressed condition.

x. Only Chrysotile white asbestos fibre shall be used. Blue asbestos shall not be utilized as raw material in the manufacturing process.

xi. There shall be no manual handling/opening of asbestos fibre bags. The company shall install fully automatic asbestos fibre debagging system.

xii. Fugitive emissions shall be controlled by bringing cement in closed tankers, fly ash in covered trucks and asbestos in impervious bags opening inside a closed mixer. Dust collectors shall be provided to Fibre. mill, Bag opening device (BOD), Cement and Fly

ash silos to control emissions. Bag filters followed by wet washer shall be provided at automatic bag opening machine, bag shredder, fibre mill and to cement silo to collect the dust and recycle it into the process. Fugitive emissions generated from hopper of Jaw crusher and pulverizer shall be channelized through hood with proper suction arrangement, bag filter and stack.

xiii. The Company shall comply with total dust emission limit of 2 mg/Nm^3 as notified under the Environment (Protection) Act, 1986. Adequate measures shall be adopted to control the process emission and ensure that the stack emission of asbestos fibre shall not exceed the emission limit of 0.2 fibre/cc. Asbestos fibre in work zone environment shall be maintained within 0.1 fibre/cc.

xiv. Bags containing asbestos fibre shall be stored in enclosed area to avoid fugitive emissions of asbestos fibre from damaged bags, if any,

xv. Proper housekeeping shall be: maintained 'within the plant premises. Process machinery, exhaust and ventilation systems shall be laid in accordance with Factories Act. Better housekeeping practices shall be adopted for improvement of the environment within the work environment also. These include:

a) All monitoring transfer points shall be connected to dust extraction system.
b) Leakages or dust from machines and ducts shall be plugged.
c) Floor shall be cleaned by vacuum cleaner only.
d) Enclosed belt conveyer shall be used instead of manual transportation of asbestos within the premises.

xvi. Quarterly monitoring of pollutant (PM_{10}, asbestos fibre count) in the work zone area and stack(s) shall be undertaken by the Project proponents. In addition, the asbestos fibre count including the fugitive dust in the work zone area shall! be monitored by an Independent monitoring agency like NIOH /ITRC / NCB or any other approved agency on six monthly basis and reports shall be submitted to the Ministry's Regional Office, SPCB and CPCB.

xvii. As reflected in the Environmental Management Plan, all the treated effluent shall be recycled and reused in the manufacturing process. No process water shall be discharged outside the premises and 'zero' discharge shall be maintained. All the domestic Wastewater shall be treated in septic tank followed by soak pit and used for green belt development.

xviii. The Company shall ensure that the entire Solid waste generated including process rejects, cement, fly ash, dust from bag filters and empty. asbestos bag shall be recycled back in the manufacturing process. There will be no solid waste disposal outside the plant premises. Asbestos fibres which cannot be further recycled due to contamination of iron dust shall be stored in HDPE lined secured landfill. The disposal facilities for asbestos waste shall be in accordance with the Bureau of Indian Standard Code.

xix. The cut and damaged fibre bags shall be repaired immediately. Empty fibre bags will be shredded into fine particles in a bag shredder and recycled into the process. Piling of AC sheets shall be done in wet condition only.

xx. The Company shall obtain a certificate from the supplier of Chrysotile fibre that it does not contain any toxic or trace metals. A copy of certificate shall be submitted to the Ministry of Environment and Forests.

xxi. Regular medical examination of the workers and health monitoring of all the employees shall be carried out and if cases of asbestosis are detected, necessary compensation shall be arranged under the existing laws. The proponent shall create in-house facilities for spirometry test. A competent occupational health physician shall be appointed to carry out medical surveillance. Occupational health of all the workers shall be monitored for lung function test, Spirometry test, chest x-ray, sputum for acid-fast-bacilli (AFC) and asbestos body (AB), urine for Sugar and albumen, bloat tests for TLC, DLC, ESR, Hb arid records maintained for at least 40 years from the beginning of the employment or 15 years after the retirement or cessation of employment whichever is later. Occupational Health Surveillance shall be carried out as per the directives of the Hon'ble Supreme Court including the recent Kalyaneswari case.

xxii. Workers must wear the appropriate personal protective equipment (PPE) clothing and respirator for the type of work they are doing.

xxiii. To educate the workers, all the work places where asbestos dust may cause a hazard shall be clearly indicated (Asbestos Hazard Awareness SOP) as a dust exposure area through the use of display signs which identifies the hazard and the associated health effects.

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

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

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

xxix. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist

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

B. General conditions:

I. Statutory compliance:

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

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
ii. The project proponent shall monitor fugitive emissions including asbestos fibre count in the plant premises at least once in every quarter through laboratories recognised under Environment (Protection) Act, 1986 or NABL accredited NIOH / ITRC / NCB or any other approved agency.
iii. The project proponent shall provide appropriate dust collectors to Fibre mill, Bag opening device (BOD), Cement and Fly ash silos. Bag filters followed by wet washer shall be provided at automatic bag opening machine, bag shredder, fibre mill and to cement silo to collect the dust and recycle the same into the process.
iv. High Efficiency Particulate Air filters (HEPA) preceded by primary filters shall be installed on all asbestos contaminated areas.
v. Total dust emission limit of 2 mg/Nm^3 as notified under the Environment (Protection) Act, 1986 shall be complied. Adequate measures shall be adopted to control the process emission and ensure that the stack emission of asbestos fibre shall not exceed the emission limit of 0.2 fibre/cc. Asbestos fibre in work zone environment shall be maintained within 0.1 fibre/cc.
vi. Provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
vii. Pollution control system in the steel 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. Channelize through hood with proper suction arrangement, bag filter and stack the fugitive emissions generated from hopper of Jaw crusher and pulverizer.

x. Separate truck parking area shall be provided and monitor vehicular emissions at regular interval.
xi. Bring the cement in closed tankers, fly ash in covered trucks and asbestos in impervious bags opening inside a closed mixer.
xii. The bags containing asbestos fibre including damaged bags, if any shall be stored in enclosed area.
xiii. Place the asbestos contaminated materials (non-encapsulated) for off-site removal in sealed packaging such as double sealed heavy duty (700 gauge) plastic bags, suitably labelled.
xiv. Empty and damaged fibre bags shall be shredded into fine particles in a bag-shredder and recycled into the process.
xv. AC sheets shall be piled in wet condition only.
xvi. 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.
xvii. Proper housekeeping shall be maintained within the plant premises. Process machinery, exhaust and ventilation systems shall be laid in accordance with Factories Act. Better housekeeping practices shall be adopted for improvement of the environment within the work environment also. These include:
    a. All monitoring transfer points shall be connected to dust extraction system.
    b. Leakages or dust from machines and ducts shall be plugged.
    c. Floor shall be cleaned by vacuum cleaner only and the dust collected shall be reused in the process.
    d. Enclosed belt conveyer shall be used instead of manual transportation of asbestos within the premises
xviii. 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 (G.S.R. No. 913 (E) dated 24thOctober, 1989 as amended time to time(Asbestos) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
iii. Adhere to 'Zero Liquid Discharge'
iv. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
v. Water meters shall be provided at the inlet to all unit processes in the 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.

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. The PP shall ensure that the entire solid waste generated including process rejects, cement, fly ash, dust from bag filters and empty asbestos bag shall be recycled back in the manufacturing process. There will be no solid waste disposal outside the plant premises. Asbestos fibres which cannot be further recycled due to contamination of iron dust shall be stored in HDPE lined secured landfill. The disposal facilities for asbestos waste shall be in accordance with the Bureau of Indian Standard Code.

ii. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.

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

VII. Green Belt

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

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

VIII Public hearing and Human health issues

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

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

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

IX. Environment Management

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

Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.

ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholder's / 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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Consideration of Modification in ToR proposal

Agenda No. 21.5

21.5 Expansion of steel plant - DRI Kilns (Sponge Iron from 99,000 TPA to 3,90,000 TPA), WHRB Based Power Plant 5.0 MW to 25 MW, Induction Funace (Billets From 48,000 TPA to 1,58,400 TPA), Establishment of New AFBC Power Plant 8.0 MW Capacity, Slag Crusher of 120 TPD by M/s Bihar Foundry & Castings Limited, located at Ramgarh Industrial Area, Plot No. 1364 Marar Village & PO, Ramgarh District, Jharkhand - Consideration of Amendment in TOR.

[Proposal No. IA/JH/IND/295239/2022; File No. IA-J-11011/310/2009-IA-II (I)]

21.5.1 M/s. Bihar Foundry & Castings Limited has made an application online vide proposal no. IA/JH/IND/295239/2022 dated 22.12.2022 along with Form-3, revised Form-1 and revised PFR seeking amendment in Terms of Reference accorded by the Ministry vide letter no. IA-J-11011/310/2009-IA II (I) dated 31st March 2020 w.r.t. enhancement of production from the existing kilns due to use of Pellets & imported Coal and installation of a new DRI kiln to

generate Power through WHRB & FBC (by utilizing Dolochar) means in order to meet the power requirement of Group companies.

Details submitted by Project proponent

21.5.2 M/s. Bihar Foundry & Castings Limited had earlier applied for grant of ToR vide proposal no. IA/JH/IND/147765/2020 dated 07.03.2020 for expansion in SMS shop (replacement of existing (2x3T+1x6T IF) with (3x10T IF) in existing Steel Plant of M/S Bihar Foundry & Casting Limited located at Ramgarh Industrial Area, Plot No. 1364, Marar Village, Ramgarh Tehsil & District, Jharkhand. Accordingly, Standard Terms of Reference was issued by MoEF&CC vide letter no. IA-J-11011/310/2009-IA II (I) dated 31st March 2020.

21.5.3 The instant proposal is for seeking amendment in ToR dated 31.03.2020 w.r.t. enhancement of production from the existing kilns due to use of Pellets & imported Coal and installation of a new DRI kiln to generate Power through WHRB & FBC (by utilizing Dolochar) means in order to meet the power requirement of Group companies as detailed below:

Plant/Equipment / Facility	Configuration As per ToR issued vide dated 31st March 2020	Configuration proposed	Final configuration after amendment	Remarks if any
DRI Kilns	3x100 TPD	Upgradation of 3x 100 TPD to 3x125 TPD	3x125 TPD	Due to use of Pellets & Imported Coal
DRI Kilns	0	New 1x600 TPD with the yield of 750 TPD	1x600 TPD	Due to use of Pellets & Imported Coal
Induction Furnace with LRF + CCM	158400 TPA 4x10T IF	158400 TPA 4x10T IF	158400 TPA 4x10T IF	Replacement of 2 x 3T IF + 1 x 6T IF with 3 x10 T IF Additional 118800 TPA
Power through WHRB	5.0 MW	25 MW	25 MW	Captive consumption in group companies
Power through AFBC	0.0	8.0 MW	8.0 MW	Captive consumption in group companies
Slag crusher	0.0	120 TPD	120 TPD	For Iron Recovery

Note:-

- Enhancement of production from Existing DRI Kilns from 3 x 100 TPD to 3x125 TPD & proposed 1x 600 TPD DRI kiln with yield of 750 TPD due to usage of Pellets & Imported Coal i.e 345 days Operation (i.e. 3,90,000 TPA)
- Replacement of existing 2 x 3T IF + 1 x 6T IF with 3 x10 T IF and existing 1x 10 T IF will remain same. The total Production capacity after expansion will be 1,58,400 TPA.

21.5.4 The following will be the raw material requirement for the proposed project:

S. No.	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
1.	**For DRI Kilns (Sponge Iron) – 3,90,000 TPA**				
a)	Pellets (100%)	5,64,413	Rungta Mines,	~ 300 Kms.	By rail & road

S. No.	Raw Material		Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
				Amalgam Steel, Rashmi Metaliks		(through covered trucks)
b)	Coal Imported		3,23,856	Indonesia / South Africa / Australia	~ 400 Kms.	Through sea route, rail route & by road (through covered trucks)
c)	Dolomite		19,463	Bilaigarh Mines	~ 500 Kms.	By road (through covered trucks)
2.	**For Steel Melting Shop (Billets/ Ingots) – 1,58,400 TPA**					
a)	Sponge Iron		1,60,000	Own generation	---	Through covered conveyers
b)	Pig Iron / MS scrap / end cuttings		24,000	Nearby market	~ 100 Kms.	By road (through covered trucks)
c)	Ferro alloys		8,000	Group Company which is adjacent	Group Company	By road (through covered trucks)
3.	**For FBC Boiler [Power Generation - 1 x 8 MW]**					
a)	Dolochar + Indian Coal	Dolochar	70,200	In plant generation	---	through covered conveyors
		Indian Coal	14,580	CCL /GHATO	~ 10 Kms.	By road (through covered trucks)

21.5.5 **Reason for Amendment:**

- The company has proposed expansion of sponge iron kilns with an intent to cater to the raw material requirement of secondary steel manufacturers and use the waste heat in kiln gases and process waste as coal char generated from sponge iron kilns for generating power captively.
- The prime raw material for the sponge iron is iron ore and the company is located in close proximity to iron ore mines which gives added advantage to the company. The company has planned to use approx. 40% of its sponge iron production captively i.e., in its Induction furnace unit for which the company has also proposed replacement of existing induction furnace with new furnace resulting in increase in production capacity. The company has planned to utilize the balance 60% of the sponge iron to meet the requirement of nearby secondary steel manufacturers.
- The production of sponge iron generates waste in the form of waste heat in kiln gases and process waste as Coal Char which can be used in WHRB and FBC Boiler for generating steam for power generation.
- The company's electric intensive manufacturing units have requirement of approx. 50 MW of power. By using the waste heat in kiln gases and process waste - coal char, the company has proposed to generate total of 33 MW of power with its proposed 18 MW WHRB, 8 MW

Fluidized Bed Combustion (FBC) Boilers and 7 MW (expanded from existing 5 MW WHRB boilers and turbine).

- The 33 MW power so generated will help the company to meet approx. 65% of the company's total power requirement. Had our company approached any Fossil fuel-based power generator for meeting its requirement of 33 MW power, the power generator would consume approx. 275000 MT of coal annually.

Hence the company's expansion project with power generation from process waste generated from sponge iron unit is climate friendly.

21.5.6 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.

Deliberation by the Committee

21.5.7 The Committee noted the following:

i. M/s. Bihar Foundry & Castings Limited had earlier applied for grant of ToR vide proposal no. IA/JH/IND/147765/2020 dated 07.03.2020 for expansion in SMS shop (replacement of existing (2x3T+1x6T IF) with (3x10T IF) in existing Steel Plant of M/S Bihar Foundry & Casting Limited located at Ramgarh Industrial Area, Plot No. 1364, Marar Village, Ramgarh Tehsil & District, Jharkhand. Accordingly, Standard Terms of Reference was issued by MoEF&CC vide letter no. IA-J-11011/310/2009-IA II (I) dated 31st March 2020.

ii. The instant proposal is for seeking amendment in Terms of Reference accorded by the Ministry vide letter no. IA-J-11011/310/2009-IA II (I) dated 31st March 2020 w.r.t. enhancement of production from the existing kilns due to use of Pellets & imported Coal and installation of a new DRI kiln to generate Power through WHRB & FBC (by utilizing Dolochar) means in order to meet the power requirement of Group companies as detailed in para 21.53 above.

iii. The EAC noted that Public Hearing is already completed on the configuration/ capacity granted in ToR dated 31.03.2020. Further, PP now proposes for modification/addition in the new component and configuration and production capacity and want to revise the complete application based on the market scenario.

iv. In view of above, the EAC further opined that since there are lot of changes as plant configuration / capacity / addition of new facilities is going to be modified/enhanced, in such circumstances, though baseline data will be valid but the PH already conducted will not be valid on the proposed configuration as per the instant application. In such a scenario PP/Consultant are advised to withdraw the proposal and apply for fresh ToR. The EAC has further no objection in issuance of Standard ToR in this particular case.

v. PP also agreed to the suggestion of EAC and showed its consent for withdrawal of instant application in order to apply for fresh ToR after re-examining the expansion project w.r.t. changes in the application on plant configuration / production capacity / addition of new facilities/ expansion etc.

Recommendations of the Committee

21.5.8 After deliberations, the Committee recommended the proposal to be **returned in its present form** based on the request of the PP and further the PP to re-examine its expansion project for the proposed facilities with modification in configuration / capacity /addition on new facilities etc. and accordingly apply for obtaining fresh ToR under the provisions of EIA Notification, 2006.

***

DAY 2: JANUARY 17th, 2023 (TUESDAY)

Consideration of Environmental Clearance Proposals

Agenda No. 21.6

21.6 Proposed expansion of existing plant by installation of Ferro Alloy plant (2x7.5 MVA), Sponge Iron Plant (1x350TPD DRI Kilns), Iron Ore Beneficiation and Pelletisation plant (600000 TPA), CPP (40 MW(8 MWWHRB+2x16MWAFBC)), Steel Melting Shop & CCM for Billet &Slab(IF- 2x15 T, EAF - 1x20 T, LRF & Tilting Furnace- 1x20T, VOD/VID/AOD - 1x20 T, CCM - 1x6/11 m), Rolling Mill -200000 TPA, Cement Grinding Plant – 300000 TPA in addition to the existing Ferro Alloy plant (4x7.5MVA), Sponge Iron Plant (2x100 TPD DRI Kilns), CPP(8MW(4MW WHRB + 4 MW AFBC), IF - 2x4 T + 1x8 T and CCM-1x6/11 m) by M/s Ispat Damodar Private Limited, located at Village: Nambagram, P.O. - Digha, P.S. - Neturia, Dist. - Purulia, West Bengal- Consideration of Environmental Clearance.

[Proposal No. IA/WB/IND1/408353/2022; File No. File No J-11011/52/2017-IA.II(I)]
[Consultant: Envirotech East Pvt. Limited; Valid upto; 25.03.2023]

21.6.1 M/s. Ispat Damodar Private Limited has made an online application vide proposal no. IA/WB/IND1/408353/2022 dated 27.12.2022 along with copy of EIA/EMP report, Forms (Part A, B and C) and Certified CTO 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. 2(b) Beneficiation Plant, 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.

21.6.2 Name of the EIA consultant: M/s. Envirotech East Pvt. Limited [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/22/2625; Valid up to 25.03.2023, as on January 6, 2023].

Details submitted by Project proponent

21.6.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
08/02/2017	16th meeting of EAC held on 6th –7th March 2017.	Terms of Reference	27/03/2017	-
17/01/2020	-	Extension of validity of ToR.	10/02/2020	
M/s. Ispat Damodar Private Limited had initially made an online application for grant of EC and submitted EIA/EMP Report vide proposal no. IA/WB/IND/90432/2017 dated 17/11/2020. The proposal was placed before the EAC in its meeting held on 25 November 2020 & 29th January 2021 wherein the EAC found some deficiencies and advised the PP to submit the				

Date of application	Consideration	Details	Date of accord	ToR Validity
revised application. Now, PP has submitted the revised application in December 2022.				

21.6.4 The project of M/s. Ispat Damodar Private Limited located in Nabagram Village, Purulia Tehsil, Purulia, District, West Bengal is for expansion of Ferro alloys plant by installation of 2X7.5 MVA SEAFs for manufacture of Fe-Cr/Fe-Mn/Si-Mn/Fe-Si, expansion of Sponge Iron Plant by installation of 1X350 TPD DRI Kilns, Iron Ore Beneficiation Plant with Pellet Plant of capacity of 6,00,000 TPA; expansion of Captive Power Plant with installation of 8 MW using waste heat DRI off gas and 2X16 MW AFBC utilizing dolochar and coal, expansion of Steel Melting Shop, installation of Rolling Mill with Reheating Furnace (Coal Gasifier /Pulverized Coal Fired/Oil fired or Direct Feeding from CCM) for production of 2,00,000 TPA Structural /Rebar /Rounds and installation of Cement Grinding Plant 1x1000 TPD for annual production of 3, 00,000 TPA PPC/PBFC.

21.6.5 Environmental Site Settings:

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>41.68 Hectares (103 acres)</td><td>Land use: Industrial land.</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Land acquisition has been completed.</td><td></td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R& R, if any.</td><td>No habitation exists on the land where proposed expansion would come. Therefore no involvement of R&R issues.</td><td></td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site</td><td><table><tr><th>POINTS</th><th>LATITUDE</th><th>LONGITUDE</th></tr><tr><td>A</td><td>23°39'22.81"N</td><td>86°47'34.78"E</td></tr><tr><td>B</td><td>23°39'21.36"N</td><td>86°47'49.23"E</td></tr><tr><td>C</td><td>23°39'18.74"N</td><td>86°48'02.42"E</td></tr><tr><td>D</td><td>23°39'10.88"N</td><td>86°47'59.62"E</td></tr><tr><td>E</td><td>23°39'05.53"N</td><td>86°48'01.70"E</td></tr><tr><td>F</td><td>23°39'03.92"N</td><td>86°47'57.98"E</td></tr><tr><td>G</td><td>23°38'56.09"N</td><td>86°47'56.07"E</td></tr><tr><td>H</td><td>23°38'55.85"N</td><td>86°47'49.48"E</td></tr><tr><td>I</td><td>23°39'01.07"N</td><td>86°47'40.44"E</td></tr><tr><td>J</td><td>23°39'09.61"N</td><td>86°47'37.91"E</td></tr></table></td><td></td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>Above Mean Sea Level (AMSL): 132 m (433 feet).</td><td></td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>-</td><td>Not applicable.</td></tr>
<tr><td>vii.</td><td>Water body exists within the project site as well as study area</td><td>Project site:
No water body exists within the project site
Study area
(1) River Damodar – 3.6 km form</td><td>This area is not coming under flood hazard zone.</td></tr>
</table>

Sl. No.	Particulars	Details submitted by the PP	Remarks
		project site. (2) Uttala River – 3.3 km from project site.	
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil	-

21.6.6 The existing project was accorded Consent to Establish vide lr. no. 3518-2N-208/2003 dated 07/11/2003. Consent to Operate for the existing unit was accorded by West Bengal State Pollution Control Board vide lr. no. 2076–WPBA/Red(Prl)/Cont(210)/10, dated 30/10/2018. The validity of CTO is up to 31/10/2023. The details of the CTE obtained are as follows:

S. No.	Parti-cular	Memo No.	Issue Date	Permission for	Project Cost mentioned in CTE (in Rs.)	Remarks
1.	CTE	9421-2N-202/2004	11.10.2004	SEAF – 4 X 7.5 MVA.	10,16,79,000/-	The plant was implemented after getting CTE from WBPCB in the year 2003 as per the prevailing notification (in the year 1994) of MoEF&CC, as per which No Environmental Clearance (EC) was required for this project because the project cost was less than Rs. 100 Crores.
2.	CTE	3518-2N-208/2003	07.11.2003	1. Induction Furnace – 2 X 8 MT *, 2. Rotary Kiln – 2 X 100 TPD	28,73,26,000/-	The plant was implemented after getting CTE from WBPCB in the year 2003 as per the prevailing notification (in the year 1994) of MoEF&CC, as per which No Environmental Clearance (EC) was required for this project because the project cost was less than Rs. 100 Crores.
3.	CTE	01_KC_ NC_8/ 06/ 525	11.01.2010	Installation of Captive Power Plant-4 MW capacity with waste heat	13,80,00,000/-	As per EIA Notification 2006, this project was not falling under the purview of Environmental Clearance. This was implemented based on CTE from WBPCB.

S. No.	Parti-cular	Memo No.	Issue Date	Permission for	Project Cost mentioned in CTE (in Rs.)	Remarks
				recovery boiler (2X10 TPH) at existing factory.		
4.	CTE	182_KC_ NC_1/ 0 6/525	24.09.2010	Fluidized Bed Combustion Boiler of Capacity 4.5 MW.	51,61,00,000/-	As per EIA Notification 2006, this project was not falling under the purview of Environmental Clearance. This was implemented based on CTE from WBPCB.
Note: * Out of 2x8 MT Induction Furnaces, 1x8 MT Induction Furnace was amended as 2x4 MT Induction Furnaces vide CTE Memo No. 311-WPBA/NOC (1853)/11 dated 05.01.2017 issued by WBPCB.						

21.6.7 **Implementation status of the existing CTO:**

Sl. No.	Facilities	Existing Units under Operation	Implementation Status	Production as per CTO
1.	Ferro Alloys Furnace	4X7.5 MVA SAF	Producing unit	
	i. Ferro Manganese		-	6000 MT/Month
	ii. Silico Manganese		-	5000 MT/Month
2.	Sponge Iron Plant	2X100TPD	-	5000 MT/Month
3.	Captive Power Plant	8 MW (4 MW WHRB + 4 MW AFBC)	-	8 MW
4.	Steel Melting Shop (SMS) Induction Furnace	2X4 T/heat + 1 X8 T/heat	-	4,000 MT/Month
5.	Continuous Casting Machine (CCM)	1 X 6/11 m	-	4,000 MT/Month

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

Sl. No	Unit Description	Existing Capacity	Proposed Capacity	Total Capacity	Product
1	Ferro Alloys Plant	4 x 7.5 MVA SAF	2 x 7.5 MVA SAF	6 x 7.5 MVA SAF	Fe-Cr - 81,000 TPA / Fe-Mn - 1,18,800 TPA / Si-Mn - 89,100

Sl. No	Unit Description	Existing Capacity	Proposed Capacity	Total Capacity	Product
					TPA / Fe-Si - 42,000 TPA
2	Iron Ore Beneficiation & Pelletisation Plant	-	6,00,000 TPA	6,00,000 TPA	Iron Ore Pellet
3	Sponge Iron Plant (DRI Kiln)	2x100 TPD (60,000 TPA)	1x350 TPD (1,05,000 TPA)	2x100 TPD + 1x350 TPD (1,65,000 TPA)	Sponge Iron
4	Induction Furnace	2x4 T + 1x8 T (48,000 TPA)	2x15 T (90,000 TPA)	2x4 T + 1x8 T + 2x15 T (1,38,000 TPA)	Liquid Steel
5	Electric Arc Furnace	-	1x20 T (96,000 TPA)	1x20 T (96,000 TPA)	Liquid Steel
6	Ladle Refining & Tilting Furnace (LRF)	-	1x20 T	1x20 T	Liquid Steel
7	VOD/VID/AOD	-	1x20 T	1x20 T	Liquid Steel
8	Continuous Casting Machine (CCM)	1x 6/11 m	1x 6/11 m	2x 6/11 m	Billets & Slab
9	Rolling Mill with Preheating Furnace (Coal gasifier / Pulverized Coal / Oil fired) or Direct feeding from CCM	-	2,00,000 TPA	2,00,000 TPA	Structural / Rebar / Round
10	Captive Power Plant	8 MW (4 MW WHRB + 4 MW AFBC)	40 MW (8 MW WHRB + 2x16 MW AFBC)	48 MW (12 MW WHRB + 36 MW AFBC)	Power
11	Cement Grinding Plant	-	1x1000 TPD	3,00,000 TPA	Cement

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

Sl. No.	Raw Material	Consumption in tonnes per ton of product	Amount in tonnes	Likely Source	Distance in km	Mode of Transport		
						Internal	Rail	Road
Iron Ore Beneficiation Plant (8,25,000 T throughput)								
1.	Iron Ore Fines	0.8	8,25,000	Mines in Barbil / Joda of Odisha	300	-	8,25,000	-
Pellet Plant (6,00,000 TPA)								
1.	Iron Ore Concentrate	1.1	6,60,000	Own production	-	6,60,000	-	-
2.	Coke Fines	0.15	9,000	Durgapur Steel Plant /	80	-	-	9,000

Sl. No.	Raw Material	Consumption in tonnes per ton of product	Amount in tonnes	Likely Source	Distance in km	Mode of Transport		
						Internal	Rail	Road
				Coking Plant of Durgapur Project Ltd.				
3.	Bentonite	0.05	3,000	Local Market	50 - 100	-	-	3,000
4.	Limestone	0.15	9,000	Biramitrapur, Sundargarh, Odisha	450	-	-	9,000
Sponge Iron Plant (1,65,000 TPA)								
1.	Pellets	1.6	2,64,000	Own production	-	2,64,000	-	-
2.	Coal	1.3	2,14,500	Nearby coal mines of ECL and BCCL	20	-	2,14,500	-
3.	Dolomite	0.05	8,250	Biramitrapur, Sundargarh, Odisha or Mines in North Bengal	450	-	-	8,250
Ferro Alloy Plant - (Existing Plant 4X7.5 MVA, Expansion 2X 7.5 MVA)								
Ferro Chrome (81,000 TPA)								
1.	Chrome Ore	2.69	2,18,400	Sukinda, Jajpur dist., Odisha	410	-	2,18,400	-
2.	Coke	0.41	33,600	Durgapur Steel Plant / Coking Plant of Durgapur Project Ltd.	80	-	-	33,600
3.	Coal	2.40	1,95,120	Nearby Coal Mines of ECL and BCC	20	-	1,95,120	-
4.	Quartz	0.02	1680	West Bengal	100	-	-	1680
5.	Dolomite	0.02	1680	Biramitrapur, Sundargarh, Odisha or Mines in North Bengal	450	-	-	1680
6.	Lime	0.03	2100	Biramitrapur, Sundargarh, Odisha	450	-	-	2100
7.	Molasses	0.06	5241	Uttar Pradesh	1500	-	-	1500
Ferro Manganese (1,18,800 TPA)								
1.	Manganese Ore	2.47	2,93,788	OMC - Manganese mines in Odisha	300	-	2,93,788	-
2.	Coal	0.38	45,198	Nearby Coal Mines of ECL	20	-	-	45,198

Sl. No.	Raw Material	Consumption in tonnes per ton of product	Amount in tonnes	Likely Source	Distance in km	Mode of Transport		
						Internal	Rail	Road
				and BCC				
3.	Coke	0.38	45,198	Durgapur Steel Plant / Coking Plant of Durgapur Projects Ltd.	80	-	-	45,198
4.	Dolomite	0.28	33,900	Biramitrapur, Sundargarh, Odisha or Mines in North Bengal	450	-	-	33,900
Ferro Silicon (42,000 TPA)								
1.	Quartz	1.54	64,590	West Bengal	100	-	-	64,590
2.	Mill Scale	0.39	16,337	Local Market	50 - 100	-	-	16,337
3.	M S Scrap	0.02	761	Local Rolling Mills & own production	50 - 100	-	-	761
4.	Charcoal	0.81	34,197	Andhra Pradesh / Tamilnadu	1500	-	-	34,197
5.	Coke	0.49	20,898	Durgapur Steel Plant / Coking Plant of Durgapur Projects Ltd.	80	-	-	20,898
Silico Manganese (89,100 TPA)								
1.	Manganese Ore	1.75	1,55,685	Manganese Mines in Odisha / Chhattisgarh	300	-	1,55,685	-
2.	Fe Mn Slag	0.13	11,895	Own production	-	11,895	-	-
3.	Coal	0.08	6,796	Nearby Coal Mines of ECL and BC	20	-	6,796	-
4.	Coke	0.08	6,796	Durgapur Steel Plant / Coking Plant of Durgapur Projects Ltd.	80	-	-	6,796
5.	Quartz	0.08	6,796	West Bengal	100	-	-	6,796
SMS - Induction Furnace (Annual Production - 1,38,000 TPA)								
1.	Sponge Iron	0.806	1,11,350	In Plant Production	-	1,11,350	-	-
2.	Pig Iron / IronScrap	0.35	48,300	Local Market	50 - 100	-	-	48,300

Sl. No.	Raw Material	Consumption in tonnes per ton of product	Amount in tonnes	Likely Source	Distance in km	Mode of Transport		
						Internal	Rail	Road
3.	Ferro alloys	0.02	2,760	In plant production	-	2,760	-	-
SMS - Electric Arc Furnace (96,000 TPA)								
1.	Iron Scraps	0.556	53,400	Local Rolling Mills	50 - 100	-	-	53,400
2.	Sponge Iron	0.456	43,770	In plant production	-	43,770	-	-
3.	Graphite Electrode or Electrode Paste	0.009	860	Maharashtra Carbon Ltd., Graphite India Ltd., Durgapur	1200 90	-	-	860
4.	Lime	0.071	6,880	Biramitrapur, Sundergarh, Odisha	450	-	-	6,880
5.	Coke	0.013	1,260	Durgapur Steel Plant / Coking Plant of Durgapur Projects Ltd.	75	-	-	1,260
Reheating Furnace / Rolling Mill (2,00,000 TPA)								
1.	Billets	1.07	2,34,000	In plant production from IFs and EAFs	-	2,34,000	-	-
Cement Grinding Plant (3,00,000 TPA)								
1.	Cement Clinker	0.6	1,80,000	From neighboring cement units	50 - 100	-	-	1,80,000
2.	Fly Ash	0.35	1,05,000	In plant generation	-	1,05,000	-	-
3.	Gypsum	0.05	15,000	IFFCO and PPL, Paradeep	520	-	-	15,000
Captive Power Plant based on AFBC (36 MW AFBC)								
		Existing 4 MW AFBC	**Proposed 32 MW AFBC**					
3.	Dolochar	18,000	31,500	In plant production	-	49,500	-	-
4.	Coal fines	1,856	14,850	In plant production & purchase from open market	20	-	-	16,706
5.	Coal	22,942	1,83,535	From Coal fields of ECL and BCCL	20	-	-	2,06,477

21.6.10 The water requirement for the project is estimated as 3028 m^3 /day (Existing : 1019 m^3/day + Proposed : 2009 m^3/day), which will be obtained from Panchet Dam reservoir on River Damodar and the permission for drawl of surface water is obtained from Damodar Valley Corporation vide permission letter No. MD/DVRR/WA(ISPAT DAMODAR)/2020/512 dated 22.09.2022.

21.6.11 The power requirement for the project is estimated as 77 MW (Existing : 30 MW + Proposed : 47 MW), which will be sourced from Captive Power Plant (48 MW capacity) and balance from DVC (Damodar Valley Corporation).

21.6.12 Baseline Environmental Studies:

Period	**1st December, 2021 to 28th February, 2022**
AAQ parameters at 8 locations	• $PM_{2.5}$ = 15 - 41 µg/m^3 • PM_{10} = 51 - 88 µg/m^3 • SO_2 = 4 - 15 µg/m^3 • NO_2 = 12 - 36 µg/m^3 • CO = 0.137 - 1.107 mg/m^3
AAQ Modelling (Incremental GLCs) Model Used : ISCST3	• PM = 2.63 µg/m^3 (0.7 km in SSW) • SO_2 = 2.81 µg/m^3 (1.2 km in NE) • NOx = 2.45 µg/m^3 (1.5 km in SSE)
Ground water quality at 9 locations	• pH: 6.65 - 7.39, • Total Hardness: 180 - 284 mg/l, • Chlorides: 83 - 125 mg/l, • Fluoride: 0.18 - 0.45 mg/l, • Iron: 0.21 - 0.42 mg/l, • TDS: 315 – 484 mg/l
Surface Water Quality at 10 Locations (1 Reservoir water sample, 2 River water & 7 pond water samples)	**Damodar River Water:** • pH: 7.1 & 7.3, • DO: 6.8 & 6.7 mg/l, • BOD: 2 & 3 mg/l, • COD: 9 & 12 mg/l • SAR: 0.9, • Conductivity: 325 & 342 µS/cm **Pond Water:** • pH: 6.7 - 7.6, • DO: 6.3 - 6.8 mg/l, • BOD: 3 - 5 mg/l, • COD: 14 - 22 mg/l • SAR: 1.2 - 1.8, • Conductivity: 284 & 662 µS/cm
Noise Levels at 10 Locations	51.6 - 68.1 dBA for day time and 42.3 - 49.6 dBA for night time.
Traffic assessment study findings	Traffic Load Study period: 24 hours on 12.01.2022 and 13.01.2022 at 2 different locations respectively • Traffic study has been conducted at Location **T1: on Sarbari-**

<table>
<tr><td></td><td>
Panchet road near Project Site, 0.03 km in North from Project Site & Location T2: on SH-5 near Sarbari more, 1.8 km in South-East from Project Site

Transportation of raw material, fuel & finished product will be done by road to nearby railway siding using these 2 routes.
Existing PCU is 916.5 PCU/hr at Location T1 & 3028.5 PCU/hr at Location T2 (2 Lane road) and existing level of service (LOS) is A for both the Locations.

<table>
<tr><th>Location</th><th>Volume PCU/day</th><th>Capacity</th><th>Existing V/C</th><th>LoS</th></tr>
<tr><td>T1</td><td>916.5</td><td>15000</td><td>0.06</td><td>A</td></tr>
<tr><td>T2</td><td>3028.5</td><td>15000</td><td>0.20</td><td>A</td></tr>
</table>

Incremental PCU Load for the proposed project is 1910. PCU load after proposed project will be 2891 at Location T1 & 5150 at Location T2 (Existing + Additional + Incremental) PCU/hr and level of service (LOS) will be “A” at Location T1 & “B” at Location T2.

<table>
<tr><th>Location</th><th>Volume PCU/day</th><th>Capacity</th><th>Existing V/C</th><th>LoS</th></tr>
<tr><td>T1</td><td>2891</td><td>15000</td><td>0.19</td><td>A</td></tr>
<tr><td>T2</td><td>5150</td><td>15000</td><td>0.34</td><td>B</td></tr>
</table>
* Note: Capacity as per IRC 64-1990 Guide line recommended design service is 15,000 PCU/day for 2 lane roads.

Conclusion: The level of service will be “A” in Location T1 and B in Location T2 including additional traffic due to proposed project.
</td></tr>
<tr><td>Flora and fauna</td><td>No Schedule I fauna and endangered flora found in the study area.</td></tr>
</table>

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

Sl. No.	Description of Solid Waste	Quantity in TPA			Disposal Practice
		Existing EC	Proposed Expansion	Total	
I. Iron Ore Beneficiation Plant					
1	Tailings from Iron ore Beneficiation Plant	--	1,65,000	1,65,000	The dewatered tailings from iron ore beneficiation and the tailings cake shall be stored inside the plant premises in dry form before finally disposing off in the abandoned mines of ECL. The recovered water shall be reused in the process. There will not be any tailing pond inside the plant.
II. Pellet Plant					
1	Dust from ESP and Bag Filters of Pellet Plant	--	2,345	2,345	To be reused in process
III. DRI Plant					

Sl. No.	Description of Solid Waste	Quantity in TPA			Disposal Practice
		Existing EC	Proposed Expansion	Total	
1	Dolo Char	18,000	31,500	49,500	To be used in AFBC Boilers for power generation.
IV. Induction Furnace					
1	Dust & Slag	8,490	15,920	24,410	After metal recovery about 10% metal is recovered from the total slag and the balance 21,969 TPA (as stone chips / road construction materials) is used for road construction & repairing / land filling purposes. Considering 3 m width & depth 30 inch (0.75 m) of the road and density of the slag as 3.5 ton/cum, 7875 T slag may be consumed for 1.0 km stretch. Therefore, the entire quantity of slag generated in a year (21,969 TPA) can be utilized for the construction of around 3.0 km roads. Besides, significant amount of slag will also be used for landfilling purposes both inside & outside the project site.
V. Electric Arc Furnace					
1	Dust & Slag	--	12,070	12,070	After metal recovery about 10% metal is recovered from the total slag and the balance 10,863 TPA (as stone chips / road construction materials) is used for road construction & repairing / land filling purposes. Considering 3 m width & depth 30 inch (0.75 m) of the road and density of the slag as 3.5 ton/cum, 7875 T slag may be consumed for 1.0 km stretch. Therefore, the entire quantity of slag generated in a year (10,863 TPA) can be utilized for around 1.5 km roads. Besides, significant amount of slag will also be used for landfilling purposes both inside & outside the project site.
VI. Captive Power Plant					
1	Fly Ash from CPP	11,900	93,100	1,05,000	Fly ash from AFBC boilers will used in Cement Plant and Brick Manufacturing Units.
2	Bottom Ash from CPP	1,333	10,667	12,000	Bottom ash to be utilised for brick making / landfilling purposes.
VII. Ferro Alloy Plant					
1	Slag from Ferro Alloy plant				

Sl. No.	Description of Solid Waste	Quantity in TPA			Disposal Practice
		Existing EC	Proposed Expansion	Total	
	Fe-Mn slag	60,264	34,776	95,040	Slag generated during Ferro Manganese production will be used as a raw material for Silico Manganese production.
	Si-Mn slag	69,600	34,800	1,04,400	Slag generated during Silico Manganese production will be used for road construction / land filling.
	Fe-Si Slag	2,026	1,013	3,039	Ferro Silicon Slag will be used in cement industries as a raw material & used for medium carbon silico manganese production purpose.
	Fe-Cr Slag	42,400	22,400	64,800	Used for road construction or land filling purposes after chrome recovery through Jigging Process and after TCLP test.
VIII. Cement Grinding Plant					
1	Dust from bag filters	--	4,950	4,950	Mixed with product

21.6.14 Public Consultation:

Details of advertisement given	29th October, 2018 in Bengali newspaper "Ei Somoy", English newspaper "The Times of India"
Date of Public Consultation	29th November, 2018 at 12.00 hrs.
Venue	Sub-divisional Office, Raghunathpur, Dist.:- Purulia, West Bengal
Presiding Officer	Additional District Magistrate, Purulia
Major issues raised	• Generation of employment for the local people and youths • To operate the pollution control device effectively and continuously during process activities. • Development of Local road conditions, sanitation facility and drinking water supply. • Taking necessary action to reduce lowering the ground water level in the locality • Development of greenbelt within the plant as per norm

PP is committed to develop two nearby villages namely Nabagram and Nimdanga (Mouza Sarbari) by addressing the socio-economic needs of the villagers. The point-wise compliance to the issues, raised during this meeting along with the action plan and budgetary provision has been presented as follows:

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

Concerns raised during	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION	Total Expenditure

Public Hearing			**1st Year**	**2nd Year**	**(Rs. in Lakhs)**
• Generation of employment for the local people and youths	In the proposed project, top most priority will be given to the local people of Nabagram and Sarbari village based on their academic qualification. Skill development to unemployed local youths through National Skill Development Corporation, Govt. of India Scheme. Construction of a building along with the necessary infrastructures for this purpose like different machinery for industries.	Physical Target (2 Years)	Land Purchase & Construction of a 6 – room building (total carpet area: 3500 sqft.) at Nabagram and Sarbari with infrastructure development like installation of 10 sewing machines, 10 computer systems & 5 machines for making hand craft items along with necessary raw materials for training purpose in each of the villages.		60
		Budget in Lakhs	30	30	
• To operate the pollution control device effectively and continuously during process activities.	• Adequate control measures like installation of ESP, Bag filters, dust suppression system, fume extraction system, sprinklers & stacks of adequate height at relevant places will be installed. • Air borne dust shall be controlled by mobile water tanker inside the plant premises. • Maintenance of air pollution control equipment shall be done at regular intervals. • All roads shall be paved on which movement of raw materials or products will take place inside the plant premises. • No waste water will be discharged outside the plant area. The plant is designed as a zero-discharge plant. The entire wastewater will	Physical Target	The physical Target for the entire activities shall be achieved in 2 years.		-
		Budget in Lakhs	Included in the EMP Cost.		

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION		Total Expenditure (Rs. in Lakhs)
			1st Year	2nd Year	
	be recirculated and recycled. • The equipment shall comply with the Statutory limit of 85 dB(A) (at 1 m. from the source). Noise Reduction Systems will be provided.				
• Development of Local road conditions, sanitation facility and drinking water supply	• Repairing of Village roads and culverts • Installation of solar lights on the village roads to provide alternative source of energy to the villagers (20 numbers, @ Rs. 20,000/- per Solar Light) • Construction of community toilets (2 nos.) with water supply facility (@ Rs. 3.00 Lakhs per set of 2 Toilets) • Providing sanitary napkin vending machines in girls schools • Development of Drinking Water Infrastructure - 6 numbers Tube well / Hand Pump in nearby villages (@ Rs. 50,000/- per Tube Well / Hand Pump).	Physical Target (2 Years)	Repairing of Village roads and culverts of Nabagram Village	Repairing of Village roads and culverts of Sarbari Village	30
		Budget in Lakhs	15	15	
		Physical Target (2 Years)	Providing 10 nos. Solar light at village Nabagram	Providing 10 nos. Solar light at village Sarbari	4
		Budget in Lakhs	2	2	
		Physical Target (2 Years)	Construction of 1 no. community toilet at Nabagram Village	Construction of 1 no. community toilet at Sarbari Village	6
		Budget in Lakhs	3	3	
		Physical Target	Providing 2 machines in 1 school	Providing 2 machines in 1 school	2
		Budget in Lakhs	1	1	
		Physical Target (2 Years)	Providing 3 nos. Tubewell at village Nabagram	Providing 3 nos. Tubewell at village Sarbari	3
		Budget in Lakhs	1.5	1.5	
• Taking	Construction of 4 no. of ground water Recharging	Physical Target:	2 no. of ground	2 no. of ground water Recharging	10

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION		Total Expenditure (Rs. in Lakhs)
			1st Year	2nd Year	
necessary action to reduce lowering the ground water level in the locality	system for rainwater in 2 nearby villages (@ Rs. 2.5 lakhs per system).		water Recharging systems at village Nabagram	systems at village Benipur	
		Budget in Lakhs	5	5	
• Development of Green Belt inside the plant premises as per the norm	The company has earmarked 13.8 Hectares (34 acres) for Green Belt Development, which is 33% of the total plant area of 41.7 Hectares (103 acres) of land. Out of this 13.8 Hectares (34 acres) of land for greenery, 2.2 Hectares (5.4 acres) of land is already used for greenery development within the plant premises where around 5500 number of trees (@2500 trees per hectare) have been planted. Remaining 11.6 Hectares (28.6 acres) of land will be utilised for greenery development in the plant area where around 29,000 number of trees (@2500 trees per hectares) will be planted. Thus, finally total 34,500 number of trees shall come under greenbelt in the plant premises.	Physical Target	Physical Target for greenbelt development inside the plant premises shall be achieved within 2 years before commissioning of the project.		-
		Budget in Lakhs	Greenbelt development inside the plant included in the EMP Cost.		
Total Budget - Public Hearing related: Rs. 115 Lakhs					

Need based Activities

Need based Activities	Particulars	Year of Implementation		Total Expenditure (Rs. in Lakhs)
		1st Year	2nd Year	
Providing Dustbins (50 nos @Rs. 1000/- per unit) in nearby villages (under Swachh Bharat Scheme) for	Physical Target:	25 nos. Dustbins at village Nabagram	25 nos. Dustbins at village Sarbari	0.5
	Budget: Rs.	Rs. 0.25 Lakhs	Rs. 0.25 Lakhs	

Need based Activities	Particulars	Year of Implementation		Total Expenditure (Rs. in Lakhs)
		1st Year	2nd Year	
waste segregation and handling	0.5 Lakhs			
Rain Water Harvesting ponds in nearby villages (2 nos. @ Rs. 5 Lakhs per pond).	Physical Target:	1 Rain Water Harvesting Pond at village Nabagram	1 Rain Water Harvesting Pond at village Sarbari	10
	Budget : Rs. 10 Lakhs	Rs. 5 Lakhs	Rs. 5 Lakhs	
Setting up library with study facility at schools of the nearby villages	Physical Target:	Setting up of library with books at village Nabagram	Setting up of library with books at village Sarbari	10
	Budget : Rs. 10 Lakhs	Rs. 5 Lakhs	Rs. 5 Lakhs	
Providing ambulance with emergency equipment to address the emergency need	Physical Target:	Providing 1 no. of Ambulance at village Nabagram	Providing 1 no. of Ambulance at village Sarbari	16
	Budget : Rs. 16 Lakhs	8	8	
Total Budget - Need based activities : Rs. 36.5 Lakhs				
Overall Budget (Pubic Hearing related + Need based Activities): Rs. 151.5 Lakhs				

21.6.15 The capital cost of the project is Rs.190 Crores and the capital cost for environmental protection measures is proposed as Rs. 10.42 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 119.7 Lakhs. The employment generation from the expansion is 136. The details of cost for environmental protection measures is as follows:

Items	Capital Cost (in Lakhs)	Recurring Cost (in Lakhs)
Cost of Air Pollution Control Systems	625.0	62.5
Cost of Water conservation & Pollution Control	125.0	10.0
Cost of Solid Waste Management System	50.0	6.0
Green belt development	35.0	4.2
Noise Reduction Systems	30.0	3.0
Occupational Health Management	32.5	3.0
Risk Mitigation & Safety Plan	22.5	2.5
Environmental Management Department	12.5	1.5
Total Budget - Public Hearing related	109.5	-
Environmental Monitoring	-	27.0
GRAND TOTAL	**1042.0**	**119.7**

21.6.16 Greenbelt will be developed in 13.8 ha which is about 33 % of the total project area. A10 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/ MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. In total around 29,000 numbers

of trees (@2500 trees per hectares) will be planted. Thus, finally total 34,500 numbers of trees shall come under greenbelt in the plant premises.

21.6.17 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.

Certified compliance report from Regional Office of SPCB:

21.6.18 The Status of compliance of the conditions stipulated in consent to operate was issued vide letter no. 2047(1)-4A/18/2008 (Pt.-V) dated 22.11.2022, by West Bengal Pollution Control Board (WBPCB). As per the report most of the conditions are complied with or being complied by the project proponent.

Earlier EC proposal consideration and Deliberations by the EAC

21.6.19 M/s. Ispat Damodar Private Limited had initially made an online application vide proposal no. IA/WB/IND/90432/2017 dated 17/11/2020 along with copy of EIA/EMP report and Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The said proposal was considered in 25th meeting of the Reconstituted EAC (Industry-I) held during 25-27th November, 2020 wherein the Committee, after detailed deliberations, recommended to return the proposal in its present form due to the technical shortcomings.

21.6.20 M/s. Ispat Damodar Private Limited submitted the revised application vide proposal no. IA/WB/IND/62286/2017 dated 31/12/2020. The proposal was placed before the EAC (Industry 1) in its 28th meeting of the Re-constituted EAC (Industry-1) held during 18-20th January, 2021. The Committee after detailed deliberations, the committee again recommended to return the proposal in present form.

21.6.21 The project proponent has again applied for EC vide an online application / proposal no. IA/WB/IND1/408353/2022 dated 27.12.2022 and the proposal is considered in the 21st meeting of the EAC for Industry-I sector held on 16-17th January, 2023. The deliberations and recommendations of the Committee are as follows:

Written representations:

21.6.22 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 17.01.2023 through email dated 17.01.2023 submitted the following information:

1. Revised CER cost (Public Hearing related + Need based Activities) increased from 109.5 Lakhs to 151.5 Lakhs. The same is updated at para 21.6.14.
2. The existing project was implemented based on Consent to Establish (CTE) from WBPCB as per the prevailing Guidelines of MoEF&CC which did not require Environmental Clearance. The details are updated at para .

3. Monitored values for the different parameters including COD values for the respective surface water bodies are submitted which are updated at para 21.6.12 above.
4. Details of the Traffic Study which are updated at para 21.6.12 above.
5. An undertaking dated 17.01.2023 is submitted pertaining to following:
    - There is no litigation pending against the existing/proposed project.
    - PP shall immediately take all possible measures to improve House Keeping at their existing plant which will be further extended to their proposed project.
    - PP shall immediately develop more greenbelt within their existing/proposed plant area with the expert advice.
    - The total project area (existing+ proposed) is 41.68 Hectares (103 Acres) and shall remain firm.

Deliberations by the Committee

21.6.23 The Committee noted the following:

1. The instant proposal is for expansion of Ferro alloys plant by installation of 2X7.5 MVA SEAFs for manufacture of Fe-Cr/Fe-Mn/Si-Mn/Fe-Si, expansion of Sponge Iron Plant by installation of 1X350 TPD DRI Kilns, Iron Ore Beneficiation Plant with Pellet Plant of capacity of 6,00,000 TPA; expansion of Captive Power Plant with installation of 8 MW using waste heat DRI off gas and 2X16 MW AFBC utilizing dolochar and coal, expansion of Steel Melting Shop, installation of Rolling Mill with Reheating Furnace (Coal Gasifier /Pulverized Coal Fired/Oil fired or Direct Feeding from CCM) for production of 2,00,000 TPA Structural /Rebar /Rounds and installation of Cement Grinding Plant 1x1000 TPD for annual production of 3, 00,000 TPA PPC/PBFC.

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 existing project was accorded Consent to Establish vide lr. no. 3518-2N-208/2003 dated 07/11/2003. Consent to Operate for the existing unit was accorded by West Bengal

State Pollution Control Board vide lr. no. 2076–WPBA/Red(Prl)/Cont(210)/10, dated 30/10/2018. The validity of CTO is up to 31/10/2023. The details of the CTE obtained are given at para 21.6.6 above. The Committee also deliberated upon the CTE/CTO details and found that there is no violation observed based on the information submitted by the PP and found it satisfactory as the EC was not required for the existing opertaion.

6. The total project area is 41.68 Hectares (103 acres) which is under the possession of the company.

7. Greenbelt will be developed in 13.8 ha which is about 33 % of the total project area. Total 34,500 numbers of trees shall come under greenbelt in the plant premises.

8. The water requirement of 3028 m^3 /day (Existing : 1019 m^3/day + Proposed : 2009 m^3/day) will be obtained from Panchet Dam reservoir on River Damodar and the permission for drawl of surface water is obtained from Damodar Valley Corporation vide permission letter No. MD/DVRR/WA(ISPAT DAMODAR)/2020/512 dated 22.09.2022.

9. River Damodar is at a distance of 3.6 km and Uttala River is at a distance of 3.3 km from 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. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.

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 SPCB and found it satisfactory.

14. PP has decided to develop two nearby villages namely Nabagram and Nimdanga (Mouza Sarbari) by addressing the socio-economic needs of the villagers.

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

21.6.24 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 Condition:

(i) The company 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 washing plant shall be dewatered in filter press and stored dry maximum for a period of 30 days inside the plant premises.

(iv) 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. Used refractories shall be recycled as far as possible.

(v) Producer gas plant shall not be established by the proponent.

(vi) Secondary fume extraction system shall be installed on converters of Steel Melting Shop.

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

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

(ix) 85-90 % of billets/slabs shall be rolled directly in hot stage. Only 10-15 % rolling shall be done through RHF using only Light Diesel Oil or Mixed BF/CO gas.

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

(xi) The water requirement of 3028 m^3 /day (Existing : 1019 m^3/day + Proposed : 2009 m^3/day) shall be obtained from Panchet Dam reservoir on River Damodar. Necessary permission shall be obtained from the Competent Authority in this regard. No ground water extraction is permitted.

(xii) River Damodar is at a distance of 3.6 km and Uttala River is at a distance of 3.3 km from 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.

(xiii) As committed, PP shall adopt two villages namely Nabagram and Nimdanga (Mouza Sarbari) and develop them into model villages. PP shall implement the action plan submitted for the development of the villages.

(xiv) The Action Plan for the Panch-tatva (5 commitments) including fossil fuel reduction road map and net-zero carbon emissions shall be strictly implemented.

(xv) 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. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.

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

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

(xviii) 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.

(xix) Three tier Green Belt shall be developed covering at least 33% of the total project area in a period of 1 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.

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

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

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

(xxiii) Air Cooled condensers shall be used in the captive power plant.

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

(xxv) 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.

(xxvi) 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.

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

(xxviii) 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 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 O_2 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. The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in 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 as amended from time to time;

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

v. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
vi. Tyre washing facilities shall be provided at the entrance of the plant gates.
vii. Treated water from ETP of COBP shall not be used for coke quenching.
viii. Water meters shall be provided at the inlet to all unit processes in the steel plants.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

i. 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 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", when PP comes for EC proposal. This study shall be formulated keeping in view of India's Net-zero commitment at the COP-26 Climate Summit.

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 by the PP.

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. 21.7

21.7 Expansion of Pellet Plant from 5.0 MTPA to 26.0 MTPA and Hot Rolling mill from 3.1 MTPA to 21.1 MTPA along with setting up 19.2 MTPA Integrated Steel Plant (DRI - 5.4 MTPA, Sinter Plant- 11.5 MTPA, Coke Oven-5.17 MTPA, Blast Furnace- 14.0 MTPA, EAF- 6.0 MTPA, BoF- 13.2 MTPA, Wire Rod Mill-1.2 MTPA, CRM- 7.5 MTPA, Calcination plant-7200 TPD, Oxygen plant- 11000 TPD, CPP (Gas based)- 550 MW, Ferro Alloy plant- 0.376 MTPA) and 12.5 MTPA Cement plant by M/s Jindal Steel Odisha Limited (JSOL), located at Villages Basudevpur, Panpur, Kaliakata Jungle, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Paripara and Jarada, Tehsil: Chhendipada & Banarpal, District Angul, Odisha - Consideration of Environmental Clearance.

[Proposal No. IA/OR/IND1/406482/2022; File No. J-11011/365/2006-IA.II(I)]
[Consultant: J.M. EnviroNet Pvt. Ltd. valid upto 07.08.2023]

21.7.1 M/s Jindal Steel Odisha Limited has made an online application vide proposal no. IA/OR/IND1/406482/2022 dated 15th November 2022 along with copy of EIA/EMP report and Certified Compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous), 3(b) Cement plants, 4(b) Coke oven plants & 1(d) Thermal Power plant under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

21.7.2 Name of the EIA consultant: M/s. J.M. EnviroNet Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0186; valid upto 02.07.2023, as on January 16, 2023].

Details submitted by the project proponent

21.7.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
6th July 2022	Standard ToR granted	Terms of Reference	7th July 2022	6th July 2026

21.7.4 The project of M/s Jindal Steel Odisha Limited located in Villages Basudevpur, Panpur, Kaliakata Jungle, Ramadiha, Kaliakata, Sankerjang, Sankerjang Jungle, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Paripara and Jarada, Tehsil- Chhendipada & Banarpal, District-Angul, Odisha is for expansion of Pellet Plant from 5.0 MTPA to 26.0 MTPA and Hot Rolling mill from 3.1 MTPA to 21.1 MTPA along with setting up 19.2 MTPA Integrated Steel Plant (DRI plant- 5.4 MTPA, Sinter Plant- 11.5 MTPA, Coke Oven-5.17 MTPA, Blast Furnace- 14.0 MTPA, EAF- 6.0 MTPA, BoF- 13.2 MTPA, Wire Rod Mill-1.2 MTPA, CRM- 7.5 MTPA, Calcination plant-7200 TPD, Oxygen plant- 11000 TPD, Captive

Power Plant (Gas based)- 550 MW, Ferro Alloy plant- 0.376 MTPA) and 12.5 MTPA Cement plant.

21.7.5 Environmental site settings

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>The total land required by JSOL for expansion project is about 1460.51 ha (3609 acres). It includes already acquired area of 2726.61 acres and additional area of 882.12 acres (Pvt. - 766.682 acres; Govt. land- 115.433 acres)</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 total 3609 acres, 2726.61 acres area is already acquired by JSP and the same is being sub-leased to JSOL.
• Revenue and Disaster Management Department, Govt. of Odisha vide its letter dated 21.06.2022 has allowed JSP to sub-lease the land measuring 2120.325 acres to JSO for setting up of 19.2 MTPA Steel plant and 12.5 MTPA Cement plant.
• The additional area of 882.12 acres will be acquired by JSOL. Letter has been obtained from Industrial Promotion & Investment Corporation of Odisha Limited (IPICOL) vide no. CGM/SLNA/JSOL/378/21/3248 dated 09.09.2022 for allotment of additional land to JSOL for setting up the plant at Angul Odisha after assessment by the High Level Clearance Authority (HLCA) in its 28th meeting held on 21.12.2021.</td><td>-</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Plant Site: Villages Basudevpur, Panpur, Kaliakata Jungle, Ramadiha, Kaliakata, Sankerjang, Sankerjang Jungle, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Paripara and Jarada

Study Area:
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Odkapa</td><td>0.7km</td><td>SE</td></tr>
<tr><td>Banuasahi</td><td>0.88 km</td><td>SW</td></tr>
<tr><td>Kerjanga</td><td>0.90 km</td><td>South</td></tr>
<tr><td>Golabandha</td><td>1.25 km</td><td>SSE</td></tr>
<tr><td>Sadanandapur</td><td>1.5 km</td><td>SE</td></tr>
<tr><td>Dudhiabeda</td><td>1.68 km</td><td>SSE</td></tr>
<tr><td>Bimalabeda</td><td>1.78 km</td><td>SW</td></tr>
<tr><td>Panapur</td><td>1.91 km</td><td>ESE</td></tr>
<tr><td>Basudevpur</td><td>2.05 km</td><td>SE</td></tr>
<tr><td>Santarapur</td><td>2.48 km</td><td>South</td></tr>
<tr><td>Nisa</td><td>2.55 km</td><td>NE</td></tr>
<tr><td>Baradiha</td><td>2.63 km</td><td>West</td></tr>
<tr><td>Maratira</td><td>2.75 km</td><td>SSE</td></tr>
<tr><td>Balichandrapur</td><td>2.77 km</td><td>NE</td></tr>
</table></td><td>The already acquired areas to be sub-leased to JSO involves Resettlement & Rehabilitation of 423 families and the additional area to be acquired involves R&R of about 100 families. Majority of project displaced families (PDFs) are interested to receive one time full & final R&R package for their self-settlement. Remaining PDFs shall be resettled in Resettlement & Rehabilitation</td></tr>
</table>

S. No.	Particulars	Details submitted by the PP			Remarks
		Paranga	2.88 km	SE	colonies for which lease proposal for Resettlement & Rehabilitation colony is under process by the District Administration.
		Amantapur	2.88 km	SSW	
		Puriabeda	2.97 km	SSW	
		Kulei	3.06 km	SSE	
		Ambapal	3.10 km	South	
		Tukuda	3.12 km	WSW	
		Bhubanpur	3.5 km	ENE	
		Malisahi	3.5 km	WSW	
		Kanjara	3.59 km	SW	
		Rautal	3.6 km	SSW	
		Badahinsara	3.90 km	SSE	
		Jerang	4.04 km	West	
		Durgapur	4.33 km	NW	
		Jarapada	4.48 km	West	
		Purunagarh	4.5 km	NW	
		Tubey	4.63 km	SSE	
		Bada hinsara	5.12 km	North	
		Madanmohan patna	5.14 km	NW	
		Podakhaman	5.16 km	SE	
		Majhika	5.18 km	ESE	
		Durgapur(Tangirisahi)	5.53 km	WNW	
		Bhagirathipur	5.55 km	West	
		Khamana	5.7 km	NNE	
		Raijharan	5.90 km	North	
		Malisahi	5.92 km	NE	
		Sanamahitala	5.93 km	East	
		Subarnapur	5.95 km	East	
		Derjanga	6.12 km	SE	
		Kankarei	6.44 km	NNE	
		Paratara	6.61 km	SE	
		Sorisapal	6.65 km	SSE	
		Pathargarh	6.70 km	SW	
		Benagadia	6.75 km	SE	
		Kandasara	6.76 km	West	
		Makundapur	6.78 km	North	
		Ogi	6.8 km	WSW	
		Jamunali	6.85 km	East	
		Jarasingha	6.9 km	East	
		Jukub(Jokub)	6.9 km	SSE	
		Jamunali	6.90 km	East	
		Bhalugadia	6.94 km	NE	
		Subarnapur	7.0 km	East	
		Laxmidharpur	7.11 km	West	
		Chhotabereni	7.31 km	NNE	
		Badakera	7.43 km	SSE	
		Musapapuli	7.44 km	SE	
		Govindapanasahi	7.46 km	West	
		Korada	7.52 km	NW	

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Anugul (M)</td><td>7.59 km</td><td>SE</td></tr>
<tr><td>Golagadia</td><td>7.60 km</td><td>North</td></tr>
<tr><td>Kusasinga</td><td>7.65 km</td><td>SE</td></tr>
<tr><td>Natada</td><td>7.66 km</td><td>ENE</td></tr>
<tr><td>Sasan</td><td>7.86 km</td><td>SSE</td></tr>
<tr><td>Kusumpal</td><td>7.87 km</td><td>NE</td></tr>
<tr><td>Madanmohanpatna</td><td>7.90 km</td><td>South</td></tr>
<tr><td>Rantalei</td><td>8.06 km</td><td>SE</td></tr>
<tr><td>Nandichhoda (Gopiballabhapur)</td><td>8.1 km</td><td>NNW</td></tr>
<tr><td>Chandrabahala</td><td>8.43 km</td><td>SSE</td></tr>
<tr><td>Putagadia</td><td>8.56 km</td><td>NW</td></tr>
<tr><td>Tumuni</td><td>8.75 km</td><td>SE</td></tr>
<tr><td>Kumunda</td><td>8.90 km</td><td>NNE</td></tr>
<tr><td>Karadagadia</td><td>8.95 km</td><td>SE</td></tr>
<tr><td>Gopinathapur</td><td>9.0 km</td><td>NNW</td></tr>
<tr><td>Bakala</td><td>9.0 km</td><td>WNW</td></tr>
<tr><td>Kuio</td><td>9.1km</td><td>East</td></tr>
<tr><td>Bethianali</td><td>9.39 km</td><td>ENE</td></tr>
<tr><td>Ragadiapada</td><td>9.43 km</td><td>SSE</td></tr>
<tr><td>Jhintipal</td><td>9.48 km</td><td>NW</td></tr>
<tr><td>Champatimunda</td><td>9.50 km</td><td>SSE</td></tr>
<tr><td>Gurudhi</td><td>9.5 km</td><td>South</td></tr>
<tr><td>Alekhapatna</td><td>9.51 km</td><td>ESE</td></tr>
<tr><td>Gadeimunda</td><td>9.6 km</td><td>South</td></tr>
<tr><td>Chakradharpur</td><td>9.8 km</td><td>North</td></tr>
<tr><td>Kosala</td><td>9.81 km</td><td>NNW</td></tr>
<tr><td>Chitalpur</td><td>9.85 km</td><td>NE</td></tr>
<tr><td>Belasuntha</td><td>9.88 km</td><td>East</td></tr>
<tr><td>Badadandasahi</td><td>9.89 km</td><td>SE</td></tr>
<tr><td>Matiasahi</td><td>9.91 km</td><td>West</td></tr>
<tr><td>Badajharan</td><td>9.92km</td><td>East</td></tr>
<tr><td>Panchamahala</td><td>10.0 km</td><td>SSE</td></tr>
<tr><td>Ranigoda</td><td>10.0 km</td><td>SE</td></tr>
<tr><td>Kalamchhuin</td><td>10.0 km</td><td>NE</td></tr>
</table>
There are approx. 109 villages in 10 km radius.
</td><td></td></tr>
<tr><td>iv.</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>20°54’33.28”N</td><td>84°58’51.98”E</td></tr>
<tr><td>B</td><td>20°53’58.17”N</td><td>84°59’35.60”E</td></tr>
<tr><td>C</td><td>20°53’52.34”N</td><td>84°59’44.39”E</td></tr>
<tr><td>D</td><td>20°51’48.23”N</td><td>84°59’57.46”E</td></tr>
<tr><td>E</td><td>20°51’42.82”N</td><td>84°59’22.72”E</td></tr>
<tr><td>F</td><td>20°51’42.75”N</td><td>84°59’7.23”E</td></tr>
<tr><td>G</td><td>20°51’20.09”N</td><td>84°58’6.30”E</td></tr>
<tr><td>H</td><td>20°52’3.40”N</td><td>84°55’44.97”E</td></tr>
<tr><td>I</td><td>20°52’49.34”N</td><td>84°55’24.04”E</td></tr>
</table>
</td><td>-</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>J</td><td>20°53’20.34”N</td><td>84°55’22.20”E</td></tr>
<tr><td>K</td><td>20°’54’2.76”N</td><td>84°56’6.09”E</td></tr>
<tr><td>L</td><td>20°54’7.81”N</td><td>84°57’16.72”E</td></tr>
<tr><td>M</td><td>20°54’23.75”N</td><td>84°57’29.95”E</td></tr>
<tr><td>N</td><td>20°54’21.64”N</td><td>84°58’12.08”E</td></tr>
</table>
</td><td></td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>162 m to 211 m above mean sea level.</td><td>-</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No fresh additional forest land will be diverted for the expansion project.
The expansion project will include already diverted 332.64 acres forest land. The Forest Clearance for the same was granted by MoEF&CC to Jindal Steel & Power Limited for diversion vide letter no. 8-75/2008-FC dated 28.10.2010.
The application for transfer of the FC to JSO has been made to the Forest Department vide letter dated 16.09.2022 and the same is under process for transfer.</td><td>-</td></tr>
<tr><td>vii.</td><td>Water body exists within the project site as well as study area</td><td>Plant site: Kurdabhali Nala is present at the plant site.
Study area: Sixteen water bodies fall within 10 km radius:
<table>
<tr><th>Water body</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>Parang Minor Irrigation project (MIP)</td><td>Adjacent</td><td>East</td></tr>
<tr><td>NandiraJor</td><td>Adjacent</td><td>East</td></tr>
<tr><td>Nigra Nala</td><td>~0.4 km</td><td>WSW</td></tr>
<tr><td>Derjanga Reservoir</td><td>~2.0 km</td><td>SE</td></tr>
<tr><td>Angul Main Canal</td><td>~3.2 km</td><td>ESE</td></tr>
<tr><td>Lingra Nala</td><td>~3.5 km</td><td>ESE</td></tr>
<tr><td>Ligra Nala</td><td>~4.0 km</td><td>SW</td></tr>
<tr><td>Balaldhara Nala</td><td>~4.5 km</td><td>ENE</td></tr>
<tr><td>MateliaJor</td><td>~5.5 km</td><td>SSE</td></tr>
<tr><td>SinghadaJor</td><td>~7.0 km</td><td>North</td></tr>
<tr><td>Gundijerl Nala</td><td>~7.5 km</td><td>in NNW</td></tr>
<tr><td>Mutkuria Nala</td><td>~8.0 km</td><td>South</td></tr>
<tr><td>Kandhanal Nala</td><td>~8.0 km</td><td>North</td></tr>
<tr><td>Purunapani Nala</td><td>~9.5 km</td><td>NNE</td></tr>
<tr><td>MarahhaJor</td><td>~9.5 km</td><td>NNE</td></tr>
<tr><td>Nuabanda Nala</td><td>~10.0 km</td><td>NW</td></tr>
</table>
</td><td>-</td></tr>
<tr><td>viii.</td><td>Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elepha</td><td>No National Park / ESZ / ESA / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. fall within 10 km study area. Therefore, NBWL approval is not applicable.

List of Reserved forests & Protected forest :</td><td>-</td></tr>
</table>

S. No.	Particulars	Details submitted by the PP			Remarks
	nt reserve etc. if any within the study area.	**Forests**	**Distance (km)**	**Direction**	
		Protected Forests			
		Derjanga Golabandha PF	~1.0 km	SE	
		Paranga PF	~1.5 km	ENE	
		Nisha PF	~3.0 km	North East	
		ArishilaSulia PF	~3.3 km	WNW	
		Mandargiri PF	~7.0 km	South East	
		Nanda PF	~9.0 km	SSE	
		Reserved Forests			
		Kerjang RF	Adjacent	South	
		Durgapur RF	Adjacent	North West	
		Kaliakata RF	Adjacent	North	
		Hinsar Sorishpal RF	~3.6 km	SSW	
		Pathargarh RF	~4.5 km	South West	
		Malibandha RF	~5.0 km	East	
		Katara RF	~5.3 km	West	
		Kalapat RF	~5.5 km	SSW	
		Sorishpal RF	~ 5.8 km	SSE	
		Jaipur RF	~7.0 km	NNE	
		Kuio RF	~7.0 km	East	
		Simuliapathar RF	~7.2 km	WNW	
		Barhadandasahi RF	~8.5 km	SSE	
		Gopalprasad RF	~ 9.0 km	North East	
		Kauchiakhol RF	~9.0 km	ENE	
		Sakasingha RF	~9.0 km	ENE	
		Kulasinga RF	~9.0 km	South	
		Burti RF	~9.0 km	SSW	
		Parha RF	~9.0 km	WSW	
		BarhaKathia RF	~9.5 km	NNE	

21.7.6 **Chronology of ToR/EC**

- Initially, M/s. Jindal Steel & Power Limited (JSPL) was granted ToR for expansion of Integrated Steel Plant from 6 MTPA liquid steel to 25.2 MTPA liquid steel (24.79 MTPA Crude Steel) and 12.5 MTPA Cement plant located at Village Kerjang, Tehsil Chhendipada, District Angul, Odisha vide letter dated 08/02/2021 with amendments dated 16.06.2021 and 29.11.2021.
- M/s. Jindal Steel Odisha Ltd. (JSOL), a wholly owned subsidiary of JSPL applied for partial transfer of 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill from the 6.0 MTPA integrated steel plant of M/s. JSPL (EC of 2007). Accordingly, the proposal was considered by the EAC in its meeting held on 29.12.2021 and based on the recommendations of the EAC, the MoEF&CC, vide File no. J-11011/365/2006-IA.II(I)

dated 14.03.2022 has partially transferred the JSPL EC of 2007 to M/s Jindal Steel Odisha Ltd for 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill.

- Further, M/s. JSPL again applied for amendment in ToR dated 08/02/2021 (with amendments dated 16.06.2021 and 29.11.2021) w.r.t. change in land use due to exclusion of the forest land from the TOR and was accorded ToR amendment vide letter dated 15.06.2022.
- M/s. JSOL then applied for Transfer of ToR dated 08/02/2021 (with amendments dated 16.06.2021, 29.11.2021 and 15.06.2022) vide proposal no. IA/OR/IND/278326/2022 dated 21/06/2022 from M/s. JSPL to M/s. JSOL.
- Thereafter, M/s Jindal Steel Odisha Limited, vide proposal no. IA/OR/IND/281741/2022, has submitted the TOR proposal for Expansion of Pellet Plant from 5.0 MTPA to 26.0 MTPA and Hot Rolling mill from 3.1 MTPA to 21.1 MTPA along with setting up 19.2 MTPA Integrated Steel Plant (DRI plant- 5.4 MTPA, Sinter Plant- 11.5 MTPA, Coke Oven-5.17 MTPA, Blast Furnace- 14.0 MTPA, EAF- 6.0 MTPA, BoF- 13.2, MTPA, Wire Rod Mill-1.2 MTPA, CRM- 7.5 MTPA, Calcination plant-7200 TPD, Oxygen plant-11000 TPD, Captive Power Plant (Gas based)- 550 MW, Ferro Alloy plant- 0.376 MTPA) and 12.5 MTPA Cement plant at Angul Odisha. Accordingly, the Ministry has issued TOR to M/s Jindal Steel Odisha Limited for the above mentioned project on 07.07.2022.
- In view of the above, the Ministry also decided that proposal of Transfer of TOR [vide proposal no. IA/OR/IND/278326/2022 dated 21/06/2022] from M/s. JSPL to M/s. JSOL may not be required and be closed in Parivesh Portal. Accordingly, PP was requested to submit the request for closure for transfer proposal from Parivesh Portal.
- M/s JSOL was granted Consent to Establish (CTE) by Odisha State Pollution Control Board (OSPCB) vide letter no. 13014/IND-II-CTE-6656 dated 26.07.2022.

21.7.7 Implementation Status of the existing EC:

S. No.	Facilities	Units	As per Partial Transfer of EC dated 14.03.2022	Implementation Status as on date	Production as per CTO
1.	Pellet Plant	MTPA	5.0	Under implementation	Not applicable at present
2.	Hot Strip Mill	MTPA	3.1	Under implementation	Not applicable at present

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

S. NO.	Plant equipment / facility	Existing facilities as per EC dated 14.03.2022								Proposed Units		Final (Existing+ Proposed)		Remarks / Products
		TOTAL (A+B)		IMPLEMENTED (A)		Unimplemented(B)		As per CTO						
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	
1)	DRI Plant	-	-	-	-	-	-	-	-	2x2.7 MTPA	5.4 MTPA	2x2.7 MTPA	5.4 MTPA	DRI/HBI
2)	Coke Oven	-	-	-	-	-	-	-	-	2x70 ovens & 4x56 ovens	5.17 MTPA	2x70 ovens & 4x56 ovens	5.17 MTPA	Metallurgical coke
3)	Sinter Plant	-	-	-	-	-	-	-	-	2x490.5 m^2	11.5 MTPA	2x490.5 m^2	11.5 MTPA	Sinter
4)	Blast Furnace	-	-	-	-	-	-	-	-	2x5400 m^3& 1x6000 m^3	14 MTPA	2x5400 m^3& 1x6000 m^3	14 MTPA	Hot metal (Liquid Iron)
5)	EAF	-	-	-	-	-	-	-	-	1x250 T & 1x360 T	6 MTPA	1x250 T & 1x360 T	6 MTPA	Liquid steel
6)	BoF	-	-	-	-	-	-	-	-	2x300 T & 2x360 T	13.2 MTPA	2x300 T & 2x360 T	13.2 MTPA	Liquid steel
7)	Wire Rod Mill	-	-	-	-	-	-	-	-	-	1.2 MTPA	-	1.2 MTPA	Wire rod
8)	Hot Rolling Mill	1x3.1 MTPA	3.1 MTPA -	-	-	Yet to be completely implemented	Yet to be completely implemented	-	-	3x6 MTPA	18 MTPA	1x3.1 MTPA & 3x6 MTPA	21.1 MTPA	Hot rolled products
9)	CRM Complex	-	-	-	-	-	-	-	-	3x2.5 MTPA	7.5 MTPA	3x2.5 MTPA	7.5 MTPA	Cold Rolled Coils
10)	Calcination plant	-	-	-	-	-	-	-	-	12x600 TPD	7200 TPD	12x600 TPD	7200 TPD	Calcined Lime &Dolo
11)	Oxygen Plant	-	-	-	-	-	-	-	-	2x2700 TPD & 2x2800 TPD	11000 TPD	2x2700 TPD & 2x2800 TPD	11000 TPD	Oxygen/ Nitrogen/ Argon

S. NO.	Plant equipment / facility	Existing facilities as per EC dated 14.03.2022								Proposed Units		Final (Existing+ Proposed)		Remarks / Products
		TOTAL (A+B)		IMPLEMENTED (A)		Unimplemented(B)		As per CTO						
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	
12)	Power Plant	-	-	-	-	-	-	-	-	2x275 MW	Gas fired-550 MW	2x275 MW	Gas fired-550 MW	Power
13)	Ferro Alloy Plant	-	-	-	-	-	-	-	-	-	0.376 MTPA	-	0.376 MTPA	Ferro alloy
14)	Pellet Plant	1x5 MTPA	5 MTPA	-	-	Yet to be completely implemented	Yet to be completely implemented	-	-	3x7 MTPA)	21 MTPA	(1x5 MTPA & 3x7 MTPA)	26 MTPA	Pellet
15)	Cement Plant	-	-	-	-	-	-	-	-	3x3.5 MTPA & 1x2 MTPA	12.5 MTPA	3x3.5 MTPA & 1x2 MTPA	12.5 MTPA	Cement

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

S. No	Raw Materials	Quantity required per annum			Source	Distance from Site (Km)	Mode of Transportation
		Existing (in TPA)	Expansion (in TPA)	Estimated gross quantity (in TPA)			
1.	Coking Coal	-	7,729,576	7,729,576	International market(Mozambique, Australia and Canada)	220 KMs from Paradeep Port	Sea, Rail
2.	Iron ore fines	-	8,883,404	8,883,404	Procured from the Joda-Barbil regions of Odisha and also from NMDC Limited through auction	215 Kms	Rail
3.	Coal	-	3,15,000	3,15,000	Coal mines of JSP at Talcher	9 kms	Conveyor
4.	Limestone	-	5,918,315	5,918,315	SMS grade – Middle East Countries (UAE and Oman). BF grade - Jukehi-Katni-Niwar area in Central India or the quarries located in Jaggayyapettaregion, Andhra Pradesh or imported from international market	955 Kms	Sea, Rail
5.	Dolomite	-	222,599	222,599	Jaggayyapetta region, Andhra Pradesh or mines in Katni- Bilaspur region, Central India	955 km	Rail
6.	Quartz	-	659,455	659,455	Domestic	1800 km	Rail
7.	Anthracite	-	353,218	353,218	Domestic	220 KMs from Paradeep Port	Rail
8.	Bentonite	-	1,55,550	1,55,550	Domestic	2000 Kms	Rail
9.	PCI Coal	-	3,139,718	3,139,718	International market (Australia, South Africa and Indonesia)	220 KMs from Paradeep Port	Sea, Rail
10.	Iron Ore Slurry	6000000	34,000,000	40,000,000	Procured from Barbil regions of Odisha	215 Kms	Slurry Pipe
11.	Lump Iron Ore	-	412,088	412,088	JodaBarbil region	215 Kms	Rail/Road
12.	Mn Ore	-	858,570	858,570	Domestic	250 Kms	Rail/Road
13.	Cr Ore	-	143,670	143,670	Domestic, Sukinda region	120 Kms	Road
14.	Clinker	-	5,729,500	5,729,500	Domestic/International market	-	Sea, Rail
15.	Gypsum	-	312,500	312,500	Domestic	1800 Kms	Rail
*In absence/ during shortage of of availability of rakes, to maintain continuity of the operations of plant, Company will be compelled to transport the material by road.							

21.7.10 Existing water requirement for the Pellet plant and Hot Strip mill is 1095 m^3/hr. Total Water requirement for after expansion will be 14060 m^3/hr out of which 11020 m^3/hr will be sourced

from River Brahmani and the balance water requirement will be met through recycled/ treated water. Industrial Promotion & Investment Corporation of Odisha Limited (IPICOL) vide no. CGM/SLNA/JOSL/378/21 dated 30.09.2022 has recommended for 105 cusec water supply to the company from Brahmani river.

21.7.11 Existing power requirement for the Pellet plant and Hot Strip mill is 185 MW. Power requirement for the proposed project will be 1760 MW. Thus, after expansion power requirement will be 1945 MW which will be sourced from the gas based Captive Power Plant (550 MW) of JSO & Power plants of 810 MW and newly acquired 1050 MW TPP of JSP at Angul, Odisha. Any shortage of power requirement will be met from Grid.

21.7.12 Baseline Environmental Studies

Parameters	**Description** **STUDY PERIOD - WINTER SEASON (December, 2020 to February, 2021)**
Ambient Air Quality Monitoring at 12 Locations	• PM10 - 57.8 to 90.3 µg/m^3 • PM2.5 - 25.5 to 51.5 µg/m^3 • SO2 -5.6 to 20.8 µg/m^3 • NOx -10.3 to 31.3 µg/m^3 • CO -BDL to 1.42 mg/m^3 • Pb- BDL to 0.3 µg/m^3 • NH3- BDL to 10.3 µg/m^3 • O3- BDL to 16.3 µg/m^3 • Ni- BDL to 10.1 µg/m^3
AAQ modeling (Incremental GLC) Model: AERMOD version 9.9.0	• PM = 2.32 to 10.76 µg/m^3 • SO_2 =0.99 to 7.2 µg/m^3 • NOx = 1.45 to 8.2 µg/m^3
Ground Water Sampling at 8 locations	• pH –7.04 to 7.58 • Total Hardness -113.8 to 490.05 mg/l • Chlorides – 34.9 to 197.25 mg/l • Fluorides –0.52 to 1.04 mg/l • Heavy Metal - Iron as Fe - 0.17 to 0.47mg/l
Surface Water Sampling at 13 locations	• pH -7.14 to 7.52 • DO -5.8 to 7.3 mg/l • BOD - 2.9 to 21 mg/l • COD -8 to 80 mg/l
Noise Level Monitoring at 12 locations	During Day Time - 52.1 to 71.3 Leq dB (A) During Night Time -41.3 to 62.2 Leq dB(A)
Traffic assessment study findings	• Traffic survey has been conducted at NH-42 which is approximately 2.0 km in South West direction from site. • Transportation of raw material, fuel & finished product will be done 90% by rail and remaining by road. In absence/ during shortage of rakes, the company will have to transport the material by road. • Existing PCU is 307 PCU/hr on NH-42 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. as per IRC: 106-1990)</th><th>Existing V/C Ratio</th><th>LOS</th></tr><tr><td>NH- 42</td><td>307</td><td>1500 (2 lane– Two Way)</td><td>0.205</td><td>B</td></tr></table> • PCU load after expansion project will be existing 307+ additional 15 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. as per IRC: 106-1990)</th><th>V/C Ratio</th><th>LOS</th></tr><tr><td>NH- 42</td><td>307+15=322</td><td>1500</td><td>0.215</td><td>B</td></tr></table> **Capacity as per IRC 106-1990 guidelines for capacity of roads* Conclusion: The level of service will be "B" after including additional traffic due to proposed project. there will not be any change in the LOS.
Flora & Fauna	6 Schedule-I species were found within 10 km radius of the study area of the plant site during biological study. The steel plant project of Jindal Steel Odisha Limited (JSO) is to be established majorly in the area initially acquired by Jindal Steel & Power (JSP) for setting up of its existing steel plant. JSPL had already acquired the area and accordingly the Wildlife Conservation Plan was prepared for the impact area and the same was duly approved by the PCCF (WL) & Chief Wildlife Warden, Odisha. The Company had already deposited Rs. 3.78 crores for execution of the approved plan. As recommended by the PCCF & HOFF, Govt. of Odisha, a site specific Wildlife Conservation Plan has been prepared by the DFO and is under approval of the PCCF & HoFF, in line with the guidelines of the Govt. of Odisha. The Company undertakes to deposit the amount for execution of the plan, to be approved by the PCCF & Chief Wildlife Warden.

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

S. No.	Type of waste	Source	Quantity generated (TPA)	Mode of treatment & disposal
1	BF Slag	Blast furnace	4,620,000	Granulation in Slag granulation plant and used in the captive cement manufacturing plant to produce Portland slag cement. Dry slag would be used for construction purpose.
2	BOF Slag	Basic oxygen furnace	2,112,000	Use in construction purposes mainly for road sub grade preparation. Proposed use in railway ballast, construction aggregate etc. after accelerate weathering
3	EAF Slag	Electric Arc furnace	1,320,000	Used as construction aggregate and as road sub grade
4	BF Flue dust	Blast furnace	3,710,000	Use in Sinter plant
5	SMS Flue Dusts	Steel melting shop	576,000	Reuse in Agglomeration and external sale

S. No.	Type of waste	Source	Quantity generated (TPA)	Mode of treatment & disposal
6	Mill Scales	Rolling mills	600,000	Reuse in agglomeration
7	Chrome sludge (Hazardous waste)	Ferro alloy plant	180 m3	Transferred to authorized agency for treatment and safe disposal in HWTSDF
8	BOD Sludge	ETP	1,500	Recycled to coke ovens
9	Coal tar sludge	Producer gas plant	2,500	Recycled to coke ovens
10	CETP Sludge	CETP	1,500	RO rejects will be treated in MEE and the crystallized solids which have no commercial value will be transferred to authorized agency for disposal. Carbon bearing sludge would be recycled back to Coke Oven
Note: Other solid wastes like clarifier sludge, ESP/Bag Filter dust, refractory debris etc. will be generated from the steel plant. These would be reused/recycled within the plant to the extent possible and the balance would be transferred to Authorized agencies for reuse/recovery of materials/disposal as per prevailing regulations.				

21.7.14 Public Consultation

S.No.	Particulars	Details
1.	Advertisement for Public Hearing	
	Date of advertisement published	23.08.2022.
	Name of newspapers	"The Times of India" and "The Dharitri"
2.	Date / Time of Public Hearing	28.09.2022 at 11.00 A.M.
3.	Venue	Sabhaghara, Angul
4.	Public Hearing Panel	Additional District Magistrate (General), Angul District.
5.	Major Issues Raised	Better package for displaced persons as per new rate, Preference to women in employment, Employment opportunity to local people, Equal pay for same type of work, Provide club houses, cultural facility, recreational facility in villages, Provision of complaint box and monthly meeting with villagers, control of air pollution, improvement & maintenance of roads connecting to villages, Promotion of poor and bright students, provision of cold storage facility for vegetable growers, Control of Noise Pollution, Increase in CRS activities, More ITI provisions, Water Supply Facility, control of water pollution, Old age home for old people from villages, Increased plantation program, Solid waste utilization, Establishment of University for higher education to local people, Provision of multispecialty hospital.

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

S. No.	Activities	Quantified activities & benefits	Year 1	Year 2	Year 3	Year 4	Year 5
			Cost in Lakhs				
1.	Health Care Activity						
	Control anemia among adolescent girls-Kishori Express	386 villages coming under Angul and Banarapal block will be covered (~30000 Adolescent girl will get benefit)	30.0	15.0	15.0	15.0	15.0
	Women and Child Care to control of Infant & Maternal Mortality Rate-Vatsalya	34 VHND Points & 10 Swasthyasanginis will be open for 396 villages coming under Angul and Banarapal block (~18000 pregnant women, lactating mother, 0-6 year children will get benefit)	30.0	20.0	20.0	20.0	18.0
	Elimination of HIV and TB Mukt Bharat	5 hoardings and 10 camps will be made for 386 villages coming under Angul and Banarpal Block, 2 theme days will be embarked for observation of HIV and TB. (~120000 person will get benefit)	5.4	3.0	3.0	2.8	2.5
	Poor Patient Treatment and referrals	Treatment facilities will be provided to New Basudevpur village. (~5 persons will get benefit)	2.1	0.6	0.4	0.3	0.3
	Telemedicine centres-Quality and timely care for the unreached population	300 Telemedicine centres will be open for doctors consultation in 8 villages (~2500 Villagers will get benefit)	4.0	2.5	2.2	2.0	1.8
	Health Awareness Programmes	24 theme day observation & 488 sensitisation session will be provided to 386 villages coming under Angul, Chhendipada & Banarapal block (~90000 persons will get benefit)	1.5	1.0	0.7	0.5	0.4
	Elderly Care Programme-Swasti	300 visits will be done in 56 villages (~6600 Elderly Person will get benefit)	8.0	6.5	6.3	5.5	4.5
	Advance Cardio Vascular Support Ambulance	1 ambulance will be provided for 56 villages of (~3000 Patients will get benefits)	20.0	6.1	5.8	5.5	5.0

S. No.	Activities	Quantified activities & benefits	Year 1	Year 2	Year 3	Year 4	Year 5
			Cost in Lakhs				
	Combat Malnutrition in coordination with ICDS-Chiranjivi	Cooked food will be provided to 75 hamlets (~1206 children will get help to fight malnutrition)	4.4	3.0	2.2	2.0	1.8
	Eye Health services-Drishti	1 Static Center will be provided within Angul District (~10705 Truckers & vulnerable will get benefit)	3.2	2.2	1.6	1.5	1.3
	Chilled Water Van-Increase outreach to water scarce area	2 water van will be provided for 56 villages. (~350000 person will get safe chilled water)	4.0	3.0	2.5	2.5	2.0
	Open Defecation Facility/Toilet	80 Toilet/ facility will be open & awareness generation program will be conducted in 14 villages of Badkerjanga and Sankerjanga GP. (~10000 villagers will get benefited)	2.5	2.0	1.7	1.7	1.5
	Renovation of drinking water facilities	15 hand pumps will get installed (~7500 person will get fresh potable water)	3.0	2.5	2.5	2.5	2.0
	Water ATM	2 water ATMs will be installed in Mahitala & Sanakerjang Village. (~1000 villagers will get fresh drinking water)	12.0	8.0	7.0	7.0	6.3
	Holistic care to destitute, vulnerable and under privileged-SNEH	204 dry ration packet will be provided (~204 Widow, Orphan, Senior citizens, Differently abled will be benefited)	3.5	3.0	3.0	3.0	2.9
	Children Home-Shelter Home for Parentless Children, Health & Nutrition Support	4 Children home will be constructed in Villages coming under District: Angul, Sundargarh, Dhenkanal, Puri. (~250 children will get benefit)	22.0	11.0	10.0	10.0	10.0
	Elderly Care-Shelter Home for Senior Citizens, Health & Nutrition Support	5 Oldage home will be constructed across the Angul District. (~125 elderly people will get benefit)	8.1	6.0	6.0	6.0	5.8
	Angul Hospital	100 Bed multi-speciality hospital will be constructed (Year1-50 nos, Year2-20 nos, Year3-10 nos, Year4-10 nos& Year5-10 nos.) Covering villages in Angul,	800.0	600.0	400.0	300.0	200.0

S. No.	Activities	Quantified activities & benefits	Year 1	Year 2	Year 3	Year 4	Year 5
			Cost in Lakhs				
		Debgarh, Keonjhar&Dhenkanal.					
	Total		963.7	695.4	489.9	387.8	281.1
2.	Skill Development/Technical Education						
	After School Learning Classes-Tuition/Coaching facility for high school students	4 teachers will be provided for 15 Villages coming under Badakerjanga, Jarada, Sanakerjang GP. (~225 students will get benefit)	3.0	2.0	2.0	2.0	1.5
	Job Oriented Coaching-Educational exposure/ career counselling - Utkarsh	2 times coaching (Morning and Evening) provided for 15 Villages coming under Badakerjanga, Jarada, Sanakerjang GP. (~300 students will get benefit)	7.00	5.00	5.00	5.00	4.50
	Community Teacher for vernacular medium Schools	25 schools will get 34 community teacher for 14 villages (Parang, Nisha, Kankarei, Natada, Tukuda, Raijharan, Koshala, Jarasigha, Benagadia, Sanakerjang, Badakerjang, Jarada, Santarapur, Tubey) (~4234 students will get benefit)	8.79	6.00	6.00	6.00	5.50
	Computer training- Computer education to rural students/BPO	4 GP will be provided for 20 Villages coming under Badakerjanga, Jarada, Sanakerjang, Nisa GP. (~4000 students will get benefit)	20.00	15.00	15.00	15.00	14.80
	Pre-School/Little Angel-Centres benefitting rural kids	One Preschool center will be constructed for 28 rural kids in Badamahitala village)	6.70	5.35	5.35	5.00	4.50
	OPJ Scholarships-Scholarship (Star and Jewel) for students	Scholarship will be provided to 132 students once a year for the villages coming under Angul District.	5.44	4.50	4.50	4.50	4.36
	Ensuring Zero drop out and Promoting quality mass education-Siksha	10 schools will be open in 10 villages coming under Raijharan and Natada GP. (~3000 student will get benefit)	1.51	0.76	0.76	0.60	0.50
	Skill Development and education for Women & Girls-Yashasvi	Will be conducted once a year across the state(Odisha, Chhattisgarh & Jharkhand) (~5000 Girls will be	100.00	90.70	90.70	85.02	75.50

S. No.	Activities	Quantified activities & benefits	Year 1	Year 2	Year 3	Year 4	Year 5
			Cost in Lakhs				
		benefited)					
	Total		152.4	129.3	129.3	123.1	111.2
3.	Community Infrastructure						
	Community Utility Infra set up-Construction/ Renovation of community building	Construction & renovation of 30 building will be done in 39 villages (~30000 villagers will get benefit)	10.70	7.00	7.00	7.00	6.50
	Model Park with Gym-Construction of Rural park & Gym	1 park & 4 Gym will be constructed in Badakerjang, Sankerjang, Maratira, Benagadia villages. (~4000 villagers will get benefit)	10.00	6.00	6.00	6.00	5.75
	Access Road-Construction of road for better connectivity	15 km road will be constructed across 39 villages. (~15000 villagers will get benefit)	20.00	15.00	15.00	13.00	12.00
	Model Village-Branding & painting of infrastructure development projects	14 GP will be covered. (~50000 villagers will get benefit)	2.01	1.88	1.88	1.80	1.75
	Excavation of pond, Pond deepening/ renovation	14 ponds will be constructed/renovated. (~50000 villagers will get benefit)	9.00	5.30	4.75	4.75	4.50
	Rural Electrification job-Solar Street & High mast LED Lights	120 lights will be installed. (~50000 villagers will get benefit)	5.02	4.00	4.00	4.00	3.85
	House for Homeless-Housing support for the poor and needy	50 house will be constructed. (~50000 villages will get benefit)	30.00	25.00	25.00	25.00	24.85
	Total		86.73	64.18	63.63	61.55	59.20
4.	Alternative Employment/Livelihood Opportunities						
	Advanced Tailoring-Training, exposure , product development-Aakriti	14 centres will be open. (~390 women will get benefit.)	3.55	3.00	3.00	3.00	2.75
	CSR Hub/ Infrastructure renovation for Women Empowerment projects	1 hub will be constructed/renovated. (~5000 women will get benefit.)	12.00	10.00	10.00	10.00	9.00
	Cattle development-Renovation of infrastructure of Dairy unit-Govardhan	10 cluster construction/renovation will be done. (~1000 farmers will get benefit.)	5.12	5.06	5.06	5.06	4.82
	Jan Jeevika Kendra- Livlihood activities	1 centre will be opened up for providing benefit to ~3000 women s.	2.27	2.14	2.14	2.14	1.95
	Total		22.94	20.20	20.20	20.20	18.52
5.	Women Empowerment						
	Support to Women SHGs for income	50 women SHG will be	15	13	13	13	12

S. No.	Activities	Quantified activities & benefits	Year 1	Year 2	Year 3	Year 4	Year 5
			Cost in Lakhs				
	generation activities-Swawlamban	opened. (~1000 women will get benefited)					
	Strengthening of SHG promotion-Swa-Shakti	50 women SHG will be opened. (~1000 women will get benefited)	10	5	5	5	4.5
	Total		25	18	18	18	16.5
6.	Irrigation, Greenery Development & Agriculture						
	Solid Waste Management in coordination with Dept. of DW & Sanitation	14 GP will be provided. (~50000 villagers will get benfit)	22.00	20.00	20.00	20.00	19.00
	Plantation/Development of pasture for Dairy Farm	14 GP will be provided. (~50000 villagers will get benfit)	20.00	15.00	15.00	15.00	14.80
	Supporting small farmers group with equipment for increasing productivity-Farm Mechanisation	14 farmer group will be made. (~3000 farmers will get benefit)	6.00	5.22	4.75	4.75	4.50
	Establishment of green house for ensuring good quality saplings to farmers	6 unit will be opened up. (~3000 farmers will get benefit)	2.00	1.50	1.27	1.27	1.20
	Promotion of vegetable cultivation to enhance the income of Farmers	10 clusters will be opened up. (~4000 farmers will get benefit)	4.00	2.00	2.00	2.00	1.95
	Mushroom farming, Vermicomposting, Azolla, Fodder	10 group will be made. (~500 farmers will get benefit.)	1.27	1.20	0.63	0.63	0.50
	Setting up of rural Haat in collaboration with NABARD	2 Haats will be constructed. (~50000 villagers will get benefit.)	10.00	6.00	6.00	6.00	5.00
	Total		65.27	50.92	49.65	49.65	46.95
7.	Others						
	Cricket Tournament for youths	5 tournament will be organised (~400 youth will participate)	1.84	0.67	0.50	0.50	0.40
	Football for boys & girls	10 tournament will be organised. (~600 students will participate)	2.09	1.67	1.25	1.24	1.20
	Volley Academy with Coaching, nutrition and sports equipment	1 academy will be constructed. (~100 players will get benefit)	3.22	2.00	1.79	1.93	1.85
	Kabaddi Academy, strengthening of coaching center	1 academy will be opened. (~100 players will get benefit)	5.22	4.00	3.76	3.76	3.50
	Supporting youths in organizing tournaments like football,cricket,khokho,volleyball,tribal	30 tournament will be organised among Raijharan, Golagadia,	4.18	3.00	2.51	2.51	2.35

S. No.	Activities	Quantified activities & benefits	Year 1	Year 2	Year 3	Year 4	Year 5
			Cost in Lakhs				
	games in mining villages	Kaunsidhipa, Similisahi, Tangarsahi villages. (~500 youth will get benefit)					
	Operation and maintenance sports hostel & stadium	1 stadium will be constructed across the Angul district. (~5000 players will get benefit)	10.42	6.00	6.00	6.00	5.95
	Cultural center for promotion of art & culture (BhagwatTungi) and DandaNachaMohotshav and other cultural programmes	20 Bhagawat Tungi, 5 DandanachaMahotsav will be organised (~50000 persons)	5.00	4.00	4.00	4.00	3.80
	Marriage support to poor girls	10 mass marriage will be organised (~50 family will get benefit)	3.00	2.00	2.00	2.00	1.75
	Total		34.97	23.34	21.81	21.94	20.80
Grand Total			1329.05	981.37	772.50	662.26	535.25

21.7.15 The existing capital cost of the project was Rs. 5752 Crores. The capital cost for the proposed expansion project is Rs. 119,952 Crores & the capital cost for environmental protection measures is proposed as Rs 4280 Crores. The annual recurring cost towards the environmental protection measures for proposed expansion is Rs 290 Crores/annum. The employment generation from the proposed expansion project is around 9400 employees (6500 permanent & 2900 temporary). The details of cost for environment protection measures are as follows:

S. No.	Description of Item	Existing (Rs. In Crores)		Proposed (Rs. In Crores)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
1.	Air Pollution Control & House Keeping measures	177.6	12	2,850	200
2.	Water Pollution Control	163	4.5	1,100	70.62
3.	Environment monitoring and management	2.7	0.5	33	3.38
4.	Solid waste management	-	-	200	10
5.	Greenbelt Development & plantation	0.22	0.1	60	6
6.	Rain water harvesting	1.5	-	37	-
7.	**Total**	345	17.1	4280	290
8.	Addressal of Public Consultation concerns	-	-	42.80	-
	Grand Total	345	17.1	4322.8	290

21.7.16 Total 511.18 ha, i.e. 35% of the total plant area will be developed under greenbelt & plantation. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees/ha. Total no. of 12,77,950 trees will be planted and nurtured in 511.18 ha in 5 years.

21.7.17 It is submitted by the PP that there is no violation under EIA notification 2006/no court cases/no show cause/no direction.

Certified Compliance Report from Regional Office, MoEFCC:

21.7.18 The Status of compliance of earlier EC was obtained from Regional Office, MoEF&CC, Bhubaneswar vide File no.109-1142/22/EPE dated 20.12.2022 in the name of M/s. Jindal Steel Odisha Limited. the details of the observations made by RO in the report dated 20.12.2022 along with its present status as furnished by the PP is given below

S. No.	Non -Compliance details	Observation of RO (abridged)	Condition no.			Response by PP/Action Plan
			EC date	Specific	General	
	Continuous online ambient air quality monitoring stations shall be setup at 02 locations around the project site (01 at the pellet plant site and 01 at the HSM site).	Continuous online ambient air quality monitoring stations at 02 locations around the project site (01 at the pellet plant site and 01 at the HSM site) has not been set up so far. Project has submitted an undertaking to comply with the above condition in this.	14.03.2022	A2.	-	• CAAQMS is in the ordering process and will be implemented within 3 months i.e. by March, 2023 • Submitted an undertaking to install 2 numbers of continuous monitoring of ambient air quality at 2 locations
2.	Fugitive emission monitored data report is not submitted.	1. In plant control measures for checking fugitive emissions not applicable because project is under construction. 2. Fugitive emission monitored data report is not submitted. 3. But AAQ monitored data is submitted	14.03.2022	A3		• AAQ data at 2 locations i.e. Pellet plant and HSM submitted and found to be within permissible limits. • Fugitive emissions data monitoring started and data will be submitted.
3.	Ground water monitoring around the Pellet Plant and Hot Strip Mill shall be carried out regularly and report submitted to the Ministry's Regional officeat Bhubaneswar, CPCBand OSPCB.	Groundwater monitoring report of sites around the PelletPlant and HotStrip Mill has not been submitted.	14.03.2022	A5.		• Groundwater monitoring borewell will be constructed by March 2023 for monitoring of the GW. • Quality of ground water will be monitored on quarterly basis
4.	Dust from the pellet plant shall be reused within the pellet plant. Mill scales shall be sent to pellet plant for	The point is not complied	14.03.2022	A6.		This condition can only be complied once the plants are commissioned and become operational.

S. No.	Non -Compliance details	Observation of RO (abridged)	Condition no.			Response by PP/Action Plan
			EC date	Specific	General	
	reuse. Sludge from ETP of HSM shall be sold to steel plant. Oil and grease recovered from HSMETP shall be given to registered recyclers.					
5.	The company shall develop rain water harvesting structure to harvest the rain water for utilization in the lean season besides recharging the ground watertable	Rainwater harvesting structure is not developed sofar.	14.03.2022	A7.		• Project has submitted an undertaking to comply with the above point in this regard. • The Rainwater harvesting structures will be developed on completion of the construction activities of the project
6.	Green belt shall be developed in 33% of total area within the plant premises as per the CPCB guidelines in consultation with DFO.	Partial Complied- 33% green belt area is not achieved so far	14.03.2022	A8.		• 33% green belt will be done in a phased manner to achieve 33% in 2 monsoon periods
7.	Recommendations made in the CREP guidelines issued for the steel plant shall be implemented.	Recommendations made in the CREP guidelines issued for the steel plant has not been implemented so far.	14.03.2022	A10		There are no specific CREP guidelines for Pellet plant and Rolling mill.
8.	The company shall undertake continuous monitoring of ambient air quality and stack emissions. The monitored data shall be displayed on the company's website as well as important public places	Continuous monitoring of ambient air quality is not being carried out at present.	14.03.2022	A13.		• AAQ data at 2 locations i.e. Pellet plant and HSM submitted and found to be within permissible limits • CAAQMS is in the ordering process and will be implemented within 3 months i.e. by March, 2023
9.	Water conservation measures will be undertaken by recycling and reusing the industrial wastewater from the pellet plant and hot strip mill.	Water conservation measures by recycling and reusing the industrial wastewater from the pellet plant and hot strip mill not done so far.	14.03.2022	A14		• Currently, there is no industrial waste water generation as the Pellet plant and HSM are under construction. • During operational stage, the industrial wastewater recycling systems will be implemented to ensure Zero Liquid Discharge from the Pellet plant and HSM.
10.	The project authorities must adhere to the stipulations made by	Compliance report of Consent to establish has not been submitted so far.			B1.	The compliance report of CTE will be submitted on successful completion of the implementation of the

S. No.	Non -Compliance details	Observation of RO (abridged)	Condition no.			Response by PP/Action Plan
			EC date	Specific	General	
	the Odisha Pollution Control Board and the State Govt.					project and before obtaining the Consent to Operate
11.	Data on stack emission from the pellet plant and HSM shall be submitted to RO, MoEF&CC and OSPCB once in six months. Atleast 02 continuous ambient..... OSPCB, CPCB once in six months.	• Continuous ambient air quality stations have not been established (01 at the pellet plant site and 01 at the HSM site). • Proof of consultation with OSPCB is not submitted.	14.03.2022		B3	• AAQ data at 2 locations i.e. Pellet plant and HSM submitted and found to be within permissible limits • CAAQMS is in the ordering process and will be implemented within 3 months i.e. by March, 2023 • RO, OSPCB will be consulted before finalizing the location of the CAAQMS
12.	Industrial waste water shall be properly collected, treated so as to conform to the standards prescribed under GSR 277 (E) 31st March 2012 or as amended from time to time. The treated waste water shall be recycled/ reused.	At present, industrial waste water is not collected and treated so as to conform to the standards prescribed under GSR277 (E) 31st March 2012 or as amended from time to time.	14.03.2022		B4	• Currently, there is no industrial waste water generation as the Pellet plant and HSM are under construction. • During operational stage, the industrial wastewater recycling systems will be implemented to ensure Zero Liquid Discharge from the Pellet plant and HSM.
13.	The project proponent shall also comply with all the environmental protection measures and safeguards as per addendum 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.	The project proponent has partially complied with the environmental protection measures and safeguards as per addendum EIA/EMP report.	14.03.2022		B6	• The EMP outlined for construction phase is already implemented • EMP for operational phases i.e. installation of Air pollution control equipments, Construction of stacks of adequate height and wastewater recycling systems are under implementation stage.

Deliberations by the Committee

21.7.19 The Committee noted the following:

1. The instant proposal is for expansion of Pellet Plant from 5.0 MTPA to 26.0 MTPA and Hot Rolling mill from 3.1 MTPA to 21.1 MTPA along with setting up 19.2 MTPA Integrated Steel Plant (DRI plant- 5.4 MTPA, Sinter Plant- 11.5 MTPA, Coke Oven-5.17 MTPA, Blast Furnace- 14.0 MTPA, EAF- 6.0 MTPA, BoF- 13.2 MTPA, Wire Rod Mill-1.2 MTPA, CRM- 7.5 MTPA, Calcination plant-7200 TPD, Oxygen plant- 11000 TPD, Captive Power Plant (Gas based)- 550 MW, Ferro Alloy plant- 0.376 MTPA) and 12.5 MTPA Cement plant.

2. The EAC noted the following w.r.t. the instant proposed project:

   (i) Initially, M/s. Jindal Steel & Power Limited (JSPL) was granted ToR for expansion of Integrated Steel Plant from 6 MTPA liquid steel to 25.2 MTPA liquid steel (24.79 MTPA Crude Steel) and 12.5 MTPA Cement plant located at Village Kerjang, Tehsil Chhendipada, District Angul, Odisha vide letter dated 08/02/2021 with amendments dated 16.06.2021 and 29.11.2021.

   (ii) M/s. Jindal Steel Odisha Ltd. (JSOL), a wholly owned subsidiary of JSPL applied for partial transfer of 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill from the 6.0 MTPA integrated steel plant of M/s. JSPL (EC of 2007). Accordingly, the proposal was considered by the EAC in its meeting held on 29.12.2021 and based on the recommendations of the EAC, the MoEF&CC, vide File no. J-11011/365/2006-IA.II(I) dated 14.03.2022 has partially transferred the JSPL EC of 2007 to M/s Jindal Steel Odisha Ltd for 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill.

   (iii) Further, M/s. JSPL again applied for amendment in ToR dated 08/02/2021 (with amendments dated 16.06.2021 and 29.11.2021) w.r.t. change in land use due to exclusion of the forest land from the TOR and was accorded ToR amendment vide letter dated 15.06.2022.

   (iv) M/s. JSOL then applied for Transfer of ToR dated 08/02/2021 (with amendments dated 16.06.2021, 29.11.2021 and 15.06.2022) vide proposal no. IA/OR/IND/278326/2022 dated 21/06/2022 from M/s. JSPL to M/s. JSOL.

   (v) Thereafter, M/s Jindal Steel Odisha Limited, vide proposal no. IA/OR/IND/281741/2022, has submitted the TOR proposal for Expansion of Pellet Plant from 5.0 MTPA to 26.0 MTPA and Hot Rolling mill from 3.1 MTPA to 21.1 MTPA along with setting up 19.2 MTPA Integrated Steel Plant (DRI plant- 5.4 MTPA, Sinter Plant- 11.5 MTPA, Coke Oven-5.17 MTPA, Blast Furnace- 14.0 MTPA, EAF- 6.0 MTPA, BoF- 13.2, MTPA, Wire Rod Mill-1.2 MTPA, CRM- 7.5 MTPA, Calcination plant-7200 TPD, Oxygen plant- 11000 TPD, Captive Power Plant (Gas based)- 550 MW, Ferro Alloy plant- 0.376 MTPA) and 12.5 MTPA Cement plant at Angul Odisha. Accordingly, the Ministry has issued TOR to M/s Jindal Steel Odisha Limited for the above mentioned project on 07.07.2022.

   (vi) In view of the above, the Ministry also decided that proposal of Transfer of TOR [vide proposal no. IA/OR/IND/278326/2022 dated 21/06/2022] from M/s. JSPL to

M/s. JSOL may not be required and be closed in Parivesh Portal. Accordingly, PP was requested to submit the request for closure for transfer proposal from Parivesh Portal.

(vii) M/s JSOL was granted Consent to Establish (CTE) by Odisha State Pollution Control Board (OSPCB) vide letter no. 13014/IND-II-CTE-6656 dated 26.07.2022.

(viii) Based on partial transfer of EC obtained from MoEF&CC dated 14.03.2022, PP has reported that 5.0 MTPA Pellet plant and 3.1 MTPA Hot Strip mill are under construction phase and CTO has not been obtained.

3. The PP reported that the total land required by JSOL for expansion project is about 1460.51 ha (3609 acres). Out of the total 3609 acres, 2726.61 acres area is already acquired by JSPL and the same is being sub-leased to JSOL. Revenue and Disaster Management Department, Govt. of Odisha vide its letter dated 21.06.2022 has allowed JSPL to sub-lease the land measuring 2120.325 acres to JSOL for setting up of 19.2 MTPA Steel plant and 12.5 MTPA Cement plant. The additional area of 882.12 acres will be acquired by JSOL. Letter has been obtained from Industrial Promotion & Investment Corporation of Odisha Limited (IPICOL) vide no. CGM/SLNA/JSOL/378/21/3248 dated 09.09.2022 for allotment of additional land to JSOL for setting up the plant at Angul Odisha after assessment by the High Level Clearance Authority (HLCA) in its 28th meeting held on 21.12.2021. The EAC deliberated on the land acquisition status and is of the view that the land status is not very clear and still not completely transferred in the name of JSOL, permissions pending at different levels.

4. The EAC noted that M/s JSPL has taken initially EC in 2007 and obtained various amendments in the EC from time to time. Further, the partial transfer of EC was also obtained from M/s JSPL to M/s JSOL in March 2022. In this regard, if M/s JSPL is sub-leasing the land to M/s JSOL which is a part of EC of M/s JSPL, then in this regard there is a need for Modification in EC of M/s JSPL also. In this regard, PP is requested to provide the factual details on this land issues.

5. The EAC made a note of the fact that the proposed expansion project will include already diverted 332.64 acres forest land. The Forest Clearance for the same was granted by MoEF&CC to Jindal Steel & Power Limited for diversion vide letter no. 8-75/2008-FC dated 28.10.2010, however the same has not been transferred in the name of M/s. JSOL. The PP is requested to take necessary action for transfer of FC in the name of M/s JSOL.

6. The EAC noted that the already acquired areas to be sub-leased to JSOL involves Resettlement & Rehabilitation of 423 families and the additional area to be acquired involves R&R of about 100 families. PP has reported that majority of project displaced families (PDFs) are interested to receive one time full & final R&R package for their self-settlement. Remaining PDFs shall be resettled in Resettlement & Rehabilitation colonies for which lease proposal for Resettlement & Rehabilitation colony is under process by the District Administration. The EAC is of the view that since this is one of its kind project, involving large capital investment, it is imperative that R&R issues do

not arrive during the execution of the project also considering the fact that there are approx. 109 villages in 10 km radius. The R&R picture needs to be clear at the forefront.

7. Villages Basudevpur, Panpur, Kaliakata Jungle, Ramadiha, Kaliakata, Sankerjang, Sankerjang Jungle, Badakerjang, Badakerjang Jungle, Jamunda, Jamunda Jungle, Paripara and Jarada falls at the project Site. There are approx. 109 villages in 10 km radius study area of the project site. Considering the Environmental Sensitivity to the habitation in the area, the EAC opined that it is prudent to inspect the area for understanding the ground reality as the area appears to have rich habitation.

8. Further, PP shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, to develop them into model villages. PP shall submit details of the villages to be adopted.

9. Kurdabhali Nala is present at the plant site. Parang Minor Irrigation project (MIP) and Nandira Jor are adjacent to the project site. Sixteen water bodies including Nala, reservoirs and canal are within the study area. The EAC is of the opinion that water bodies are required to be conserved. 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. Further during preparation of drainage conservation plan, PP shall prepare a contour map showing contour interval, proper Bench Mark, Drainage disposal with design and calculations, Rain Water Harvesting Plan with design and calculation including the invert level of disposal point in order to achieve ZLD.

10. The PP/Consultant presented the drone video of the project site and the EAC is of the opinion that drone videography do not give complete picture of the site. Also, the adjacent site of JSPL is also not covered in the video which is also essential since, existing project is a part acquired from JSPL.

11. The EAC deliberated on the baseline data and observed that the maximum values of PM10 and PM2.5 are very high. The existing project is still in construction phase and the incremental GLC may result in higher emissions after implementation of the proposed project.

12. The Committee deliberated on the incremental GLC due to the proposed project and observed that incremental GLC for CO has not been submitted in the brief. In this regard, the EAC is of the opinion complete information in this regard shall be submitted.

13. Six Schedule-I species were found within 10 km radius of the study area of the plant site during biological study. It is reported that as recommended by the PCCF & HOFF, Govt. of Odisha, a site-specific Wildlife Conservation Plan has been prepared by the DFO and is under approval of the PCCF & HoFF, in line with the guidelines of the Govt. of Odisha.

14. The EAC deliberated on the CCR dated 20.12.2022 obtained from IRO, MoEF&CC and observed that 13 observations have been raised by the IRO majorly involving CAAQMS installation, Fugitive emissions, groundwater monitoring, dust and ETP sludge, rainwater harvesting, greenbelt, CREP guidelines, water conservation, wastewater management

etc. Also, PP has reported that they have submitted the ATR just now to IRO but the closure report of IRO is not obtained. Compliance of existing EC conditions is essential for an expansion project.

15. It was also apprised to the EAC members that Ministry is in receipt of a representation dated 13.01.2023 against the project requesting for "Stay Order" on "Environment Clearance" for proposed phase-2 expansion of JSPL-Angul till 100% execution of all guidelines, policies, terms & conditions pertaining to Environment Clearance given to JSPL-Angul dated 22nd Feb'2007, Consent to Operate orders issued by ROSPCB, proceedings issued by District Administration. 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. The EAC advised the Ministry to forward the representation to project proponent for their justification/clarification. Also, it is pertinent to undertake site visit to understand the issues in detail. In this context, representation has been forwarded to PP. It was also informed to the EAC that the IRO MoEFCC was requested to provide the factual report in this regard.

16. 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 is of the view that the action plan does not justify the addressal of issues effectively. PP needs to revise the action plan in conformity to MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30/09/2020.

17. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions and the associated EMP cost and found it unsatisfactory. The EAC is of the opinion that that the EMP cost do not commensurate with the project cost. The EMP measures and associated cost needs to be revisited.

18. The PP has reported that project involves tree felling 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.

19. The EAC deliberated on the submitted plant layout and is of the opinion that Project proponent shall submit a separate 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.

20. The PP has not submitted the details of the existing greenbelt in the land to be sub leased from M/s. JSPL. The Committee deliberated that EC was granted long back in 2007 to JSPL and greenbelt should have been developed by now. Therefore, PP is required to submit the details of the greenbelt along-with the photographs.

21. There are many PF and RF very adjacent to the project site and within the study area. PP needs to submit the mitigation measures that will be undertaken to minimise the impact of the proposed project.

22. Details of railway siding permission and its status needs to be submitted.

23. Updated status and development of slurry pipelines needs to be submitted.

24. EAC noted that Green belt plan is not adequate and needs revision.

25. PP needs to revise the water balance as it is not adequate as deliberated during the meeting.

26. It was observed that still R&R issues are pending w.r.t. PAF. Details needs to be submitted.

27. PP also needs to submit all the directions issued by the SPCB, if any, and details court cases, if any.

28. There is no proper Engineering drawing of a layout. It missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations.

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

30. Thus, in view of the above observations the EAC is of the opinion that it is pertinent to undertake site visit of the sub-committee of the EAC to understand the ecological/environmental sensitivity of the area/ complexity of the project/ size of the project and the various other issues involved in the project related to earlier EC of 2007 and its compliance of earlier EC conditions of 2007 and also partial transfer of EC of 2022, compliances of earlier PH commitments, R&R issues and other issues as mentioned above. In view of very large project and enormous number of issues are involved, the EAC is suggested to conduct the site visit with sub-committee involving the representatives of SPCB & IRO, MoEFCC so that all the issues are addressed accordingly for this mega project.

Recommendations of the Committee:

21.7.20 In view of the foregoing and after deliberations, the Committee recommended **to defer the proposed project and recommended for site visit** of the proposed project area by a sub-committee of EAC Industry-1 members comprising of Dr. Dipankar Shome, Dr. Tejaswini Ananthkumar, Shri Nazimuddin and Representative of IRO, MoEF&CC, Representative of SPCB, Odisha and Representative of MoEFCC, New Delhi to conduct the site visit and submit the factual Report covering all the issues. The proposal shall be appraised based on the findings of the sub-committee and deliberation of EAC.

***

Agenda No. 21.8

21.8 Greenfield project comprising of Iron Ore Beneficiation Plant 2x1.5 MTPA) - 3.0 MTPA, Pellet Plant (2 x 1.2 MTPA) – 2.4 MTPA, Producer Gas Plant (14 x 5000 NM3/Hr.)- 588 MNM3 per annum, DRI Kilns (8x600 TPD) – 1.68 MTPA, WHRB Power through DRI kilns – (8 x 15 MW)-120 MW ,Through BF - 18 MW , Through Coke Oven- 15 MW and CFBC based Power Plant of (2 x 15 MW)- 30 MW, SMS – IF (18 x 20 T) with LRF (6 X 20 T)- 1.26 MTPA, BOF (1 x 50 T) with LRF (1 x 50 T) and VD unit (1 x 50 T)- 0.525 MTPA and EAF (1 X 50 T)with LRF (1 x 50 T) - 0.175 MTPA, Rolling Mill through hot charging (3 x 1000 TPD) - 1.05 MTPA, Sinter Plant (1x 100 m2) – 1.092 MTPA ,Blast Furnace (1x750 m3) – 0.7875 MTPA, Coke Oven Plant (Non recovery) – 0.5 MTPA, Ferro Alloys (4 x 9 MVA)- 0.084 MTPA, Oxygen Plant (1x250 TPD) -0.087 MTPA, Lime & Dolomite Plant (1x 450 TPD) – 0.1575 MTPA, Brick Manufacturing Unit -350 Million Bricks/Year & Slag Recycling Plant (1 x 150 TPD) – 0.0525 MTPA by M/s Shyam Steel Works (P) LTD., located at Jangal Sundari Karmanagri- Parcel II, Lachhmanpur, Jarukhamar, Siulibari, Digardhi, Shikratyar, Senera & Talshankra Village/ Mouza, Raghunathpur-1 Tehsil/Block, Purulia District, West Bengal– Consideration of Environmental Clearance.

[Proposal No. IA/WB/IND1/408696/2022; File No. IA-J-11011/228/2021-IA-II(IND-I)]
[Consultant: M/s Pioneer Enviro Laboratories & Consultants Pvt. Ltd.; Valid upto 11.03.2023]

21.8.1 M/s. Shyam Steel Works (P) Ltd. has made an online application vide proposal no. IA/WB/IND1/408696/2022 dated 04-01-2023 along with copy of EIA/EMP Report, Forms (Part A, B and C) seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006, as amended thereof for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

21.8.2 Name of the EIA consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/22/2613; valid upto 11.03.2023, as on January 16, 2023].

Details submitted by Project proponent

21.8.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of accord	ToR Validity
29th December 2021	51st EAC 11th 12th January 2022	TOR issued with public hearing	27th January 2022	26th January 2026

21.8.4 The project of M/s. Shyam Steel Works (P) Limited located at Jangal Sundari Karmanagri-Parcel -II, Village Lachhmanpur, Jarukhamar, Siulibari, Digardhi, Shikratyar, Senera & Talshankra Tehsil Raghunathpur-I, District Purulia, West Bengal is for setting up of Iron Ore Beneficiation Plant (2x1.5 MTPA)- 3.0 MTPA, Pellet Plant (2x1.2 MTPA) – 2.4 MTPA, Producer Gas Plant (14x5000 Nm^3 /Hr.)- 588 MNm^3 , DRI Kilns (8x600 TPD) – 1.68 MTPA, WHRB Power through DRI kilns – (8x15 MW)-120 MW, Through BF - 18 MW, Through Coke Oven- 15 MW and CFBC based Power Plant of (2 x 15 MW)- 30 MW, SMS – IF (18x20 T) with LRF(6x20 T)- 1.26 MTPA, BOF (1x50 T) with LRF (1x50 T) and VD unit (1x50 T)- 0.525 MTPA and EAF (1x50 T) with LRF (1x50 T) - 0.175 MTPA, Rolling Mill through hot charging (3x1000 TPD) - 1.05 MTPA, Sinter Plant (1x100 m^2) – 1.092 MTPA, Blast Furnace (1x750 m^3) – 0.7875 MTPA, Coke Oven Plant (Non recovery) – 0.5 MTPA, Ferro Alloys (4x9 MVA)- 0.084 MTPA, Oxygen Plant (1x250 TPD) - 0.087 MTPA, Lime & Dolomite Plant (1x450 TPD) – 0.1575 MTPA, Brick Manufacturing Unit - 350 Million Bricks/Year and Slag Recycling Plant (1x150 TPD) – 0.0525 MTPA.

21.8.5 Environmental Site Settings:

<table>
<tr><th>S.No.</th><th>Particulars</th><th>Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total Land</td><td>242.81 hectares. (600 Acres).</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 has been allotted & physical possession given.</td><td></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. Hence R&R not applicable.

Study Area
No habitation exists in the project site
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Maharajnagar</td><td>0.02 Kms.</td><td>SE</td></tr>
<tr><td>Lachhmanpur</td><td>0.03 Kms</td><td>E</td></tr>
<tr><td>Shikratyar</td><td>0.06 Kms</td><td>S</td></tr>
<tr><td>Digardhi</td><td>0.05 Kms</td><td>SE</td></tr>
<tr><td>Jarukhamar</td><td>0.54 Kms</td><td>NW</td></tr>
<tr><td>Talshankra</td><td>1.7 Kms</td><td>SW</td></tr>
<tr><td>Senera</td><td>0.85 Kms</td><td>S</td></tr>
</table></td><td>---</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site</td><td>
<table>
<tr><th>Points</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>Pt-1</td><td>23°35'03.75"</td><td>86°43'56.92"</td></tr>
<tr><td>Pt-2</td><td>23°35'30.64"</td><td>86°43'33.09"</td></tr>
<tr><td>Pt-3</td><td>23°35'35.96"</td><td>86°43'27.93"</td></tr>
<tr><td>Pt-4</td><td>23°35'36.54"</td><td>86°43'23.3"</td></tr>
<tr><td>Pt-5</td><td>23°35'35.82"</td><td>86°43'19.45"</td></tr>
<tr><td>Pt-6</td><td>23°35'34.23"</td><td>86°43'18.1"</td></tr>
<tr><td>Pt-7</td><td>23°35'32.50"</td><td>86°43'21.24"</td></tr>
<tr><td>Pt-8</td><td>23°35'24.08"</td><td>86°43'19.10"</td></tr>
<tr><td>Pt-9</td><td>23°35'23.89"</td><td>86°43'20.86"</td></tr>
<tr><td>Pt-10</td><td>23°35'16.72"</td><td>86°43'16.96"</td></tr>
<tr><td>Pt-11</td><td>23°35'09.11"</td><td>86°43'19.59"</td></tr>
<tr><td>Pt-12</td><td>23°35'01.54"</td><td>86°42'56.14"</td></tr>
</table></td><td>---</td></tr>
</table>

<table>
<tr><th>S.No.</th><th>Particulars</th><th colspan="4">Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td></td><td></td><td colspan="4"><table>
<tr><td>Pt-13</td><td>23°34'38.64"</td><td>86°42'45.5"</td></tr>
<tr><td>Pt-14</td><td>23°34'33.73"</td><td>86°42'47.31"</td></tr>
<tr><td>Pt-15</td><td>23°34'29.12"</td><td>86°42'32.64"</td></tr>
<tr><td>Pt-16</td><td>23°34'16.46"</td><td>86°42'31.62"</td></tr>
<tr><td>Pt-17</td><td>23°34'15.99"</td><td>86°42'37.63"</td></tr>
<tr><td>Pt-18</td><td>23°34'26.63"</td><td>86°42'40.64"</td></tr>
<tr><td>Pt-19</td><td>23°34'32.46"</td><td>86°43'01.35"</td></tr>
<tr><td>Pt-20</td><td>23°34'42.53"</td><td>86°42'58.23"</td></tr>
<tr><td>Pt-21</td><td>23°34'51.62"</td><td>86°43'01.04"</td></tr>
<tr><td>Pt-22</td><td>23°34'44.05"</td><td>86°43'16.41"</td></tr>
<tr><td>Pt-23</td><td>23°34'26.86"</td><td>86°43'23.07"</td></tr>
<tr><td>Pt-24</td><td>23°34'25.23"</td><td>86°43'39.11"</td></tr>
<tr><td>Pt-25</td><td>23°34'28.83"</td><td>86°43'52.66"</td></tr>
<tr><td>Pt-26</td><td>23°34'37.91"</td><td>86°43'51.48"</td></tr>
<tr><td>Pt-27</td><td>23°34'45.1"</td><td>86°43'52.48"</td></tr>
<tr><td>Pt-28</td><td>23°34'48.1"</td><td>86°43'45.99"</td></tr>
<tr><td>Pt-29</td><td>23°35'4.62"</td><td>86°43'45.05"</td></tr>
<tr><td>Pt-30</td><td>23°35'15.68"</td><td>86°43'47.47"</td></tr>
<tr><td>Pt-31</td><td>23°35'14.93"</td><td>86°43'52.00"</td></tr>
<tr><td>Pt-32</td><td>23°35'27.21"</td><td>86°43'53.82"</td></tr>
<tr><td>Pt-33</td><td>23°34'35.53"</td><td>86°43'54.04"</td></tr>
</table></td><td></td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td colspan="4">129 m to 160 m AMSL</td><td>---</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land, if any</td><td colspan="4">No Forest land is involved in the project site.</td><td>---</td></tr>
<tr><td>vii.</td><td>Water body exists within the project site as well as study area</td><td colspan="4"><u>Project Site</u> :
<table>
<tr><th>Water Body</th><th>Distance</th></tr>
<tr><td>2 nos. of Ponds in Digardhi Village</td><td>Within the site</td></tr>
<tr><td>1 no. of pond in Lachhmanpur Village</td><td>Within the site</td></tr>
<tr><td>1 no. of pond in Siulibari Village</td><td>Within the site</td></tr>
</table>
Stream is passing along South West Boundary toward North direction approaching Panchet Reservoir

<u>Study area:</u>
<table>
<tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>UttalaNadi</td><td>3.5 Kms</td><td>NW</td></tr>
<tr><td>Panchet Reservoir</td><td>8.0 Kms</td><td>NNE</td></tr>
<tr><td>Panchet Dam</td><td>9.0 Kms</td><td>NNE</td></tr>
<tr><td>Ramachandrapur Reservoir</td><td>10.2 Kms</td><td>E</td></tr>
<tr><td>Maharajnagar Village Pond</td><td>0.4 Kms</td><td>SE</td></tr>
<tr><td>Sikratyar village pond</td><td>Adjacent</td><td>S</td></tr>
<tr><td>Kelahi village pond</td><td>0.5 Kms</td><td>W</td></tr>
</table></td><td>---</td></tr>
</table>

<table>
<tr><th>S.No.</th><th>Particulars</th><th>Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Durmut Village Pond</td><td>2.9 Kms</td><td>W</td></tr>
<tr><td>Garh Panchkot Village Pond</td><td>3.8 Kms</td><td>NEE</td></tr>
</table>
Few seasonal nalas, ponds exist within the study area</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

List of Reserved and protected forests.
<table>
<tr><th>Name</th><th>Distance</th></tr>
<tr><td>Senara R.F.</td><td>0.05 Kms. (S)</td></tr>
<tr><td>Indira Pahari P.F.</td><td>0.12 Kms. (SSW)</td></tr>
<tr><td>Panchet R.F</td><td>2.8 Kms. (NNE)</td></tr>
<tr><td>Bindabanpur P.F.</td><td>2.0 Kms. (SE)</td></tr>
<tr><td>Muktipur P.F.</td><td>4.0 Kms. (SEE)</td></tr>
<tr><td>Bheti P.F.</td><td>5.5 Kms. (SEE)</td></tr>
<tr><td>Dubrajpur PF</td><td>6.5 Kms. (SEE)</td></tr>
<tr><td>Dandahit PF</td><td>11.6 Kms. (SEE)</td></tr>
<tr><td>Unnamed PF</td><td>0.65 Kms. (SW)</td></tr>
<tr><td>Unnamed PF</td><td>1.6 Kms. (NW)</td></tr>
</table></td><td>---</td></tr>
</table>

21.8.6 It has been informed by the project proponent that Environment Clearance for the project site mentioned above was accorded by the Ministry vide letter no. J-11011/1283/2007-IA.II(I) dated 5/01/2010. However, the project activity could not be commenced due to financial issues. Subsequently, the land as well as EC was surrendered to WBIDC and MoEF&CC respectively. Therefore, proposed project is a Greenfield project.

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

S. No.	Unit (product)	Unit configuration	Production capacity
1	Iron ore beneficiation plant (I/O concentrate)	2 x 1.5 MTPA	3.0 MTPA
2	Pelletization Plant (pellets)	2 x 1.2 MTPA	2.4 MTPA
3	Producer Gas Plant (Producer Gas)	14 X 5000 NM^3/HR	588 MNM^3 /annum
4	DRI Kiln (Sponge Iron)	8 x 600 TPD	1.68 MTPA
5	Power generation through WHRB from DRI Kiln	8 x 15 MW	120 MW
6	Power generation through WHRB from Blast Furnace	1 x 18 MW	18 MW
7	Power generation through WHRB from Coke Oven	1 x 15 MW	15 MW
8	Power generation through CFBC Boiler	2 x 15 MW	30 MW
9	SMS {IF+LRF} – (Hot Billets / M.S.Billets)	18 x 20 T	1.26 MTPA
10	SMS {BOF+LRF*+ VD} - (Hot Billets / M.S.Billets)	1 x 50 T	0.525 MTPA
11	SMS (EAF+LRF*) - (Hot Billets / M.S.Billets)	1 x 50 T	0.175 MTPA
12	Rolling Mill through Hot charging (Rolled products i.e. TMT bars / Angles / Channels e.t.c) 85% Hot charging + 15% through RHF	3 x 1000 TPD	1.05 MTPA
13	Blast Furnace (Pig Iron)	1 x 750 m^3	0.7875 MTPA
14	Coke oven plant (Coke)	1 x 0.5 MTPA	0.5 MTPA
15	Sinter Plant (Sinter)	1 x 100 m^2	1.092 MTPA
16	Ferro Alloy Unit (FeMn (or) SiMn (or) FeCr (or) Pig Iron)	4 x 9 MVA	0.084 MTPA
17	Oxygen Plant	1 x 250 TPD	0.0875 MTPA
18	Lime & Dolomite Plant	1 x 450 TPD	0.1575 MTPA

S. No.	Unit (product)	Unit configuration	Production capacity
19	Brick Manufacturing plant	10 Lakh Bricks /day	350 Million Bricks /annum
20	Slag Recycling Plant	1 x 150 TPD	0.0525 MTPA
Note - * Mentioned LRF is common for BOF & EAF **Note: Briquetting plant of 400 Kg/hr will be provided for effective dust emission management.**			

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

S.No.	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
1.	Iron Ore Fines	41,50,800	Odisha, Jharkhand & Chhattisgarh	~ 500 Kms.	By Rail, Road
2.	I/O Concentrate	26,400,00	Own generation	---	Through Conveyer
3.	Anthracite Coal	24,000	Jharkhand, Odisha, WB & Imported	~ 500 Kms.	By Rail & Road (Covered trucks) & Through vessel.
4.	Bentonite	21,600	Gujarat	~ 2100 Kms.	By Road (Covered trucks) & Rail
5.	Lime stone	2,85,440	M.P. & Odisha	~ 650 Kms.	By Rail & Road (Covered trucks)
6.	Coke breeze	30,000	Own generation, WB & Jharkhand	~ 100 Kms.	Internal Transfer & By Road (Covered trucks
7.	Dust from Pellet Plant	48,000	Own generation	---	Re-used through close circuit
8.	Domestic Coal	3,90,300	Odisha, Jharkhand & WB	~ 200 Kms.	By Rail & Road (Covered trucks)
9.	Pellet (or) Iron Ore	24,00,000 (or) 26,88,000	Own generation Odisha, Chhattisgarh, Jharkhand	---- ~ 500 Kms.	By Conveyers Rail and Through vessel
10.	Imported Coal	14,28,000	South Africa, Indonesia & Australia	~300 Kms (from Port)	Through vessel & Road
11.	Dolomite	2,63,300	M.P., Chhattisgarh & Imported from Bhutan	~ 550 Kms.	By Rail & Road (Covered trucks) and Internal Transfer
12.	Dolochar	3,70,000	Own generation	----	Through Conveyer
13.	Sponge Iron	13,47,500	Own generation	---	Through Conveyers
14.	Pig Iron	2,45,500	Own generation	---	Internal Transfer (Covered trucks)
15.	Melting Scrap (end cuttings also)	1,17,500	Own generation, Odisha, Chhattisgarh, Jharkhand, WB & Imported	~ 200 Kms.	Internal transfer (Covered Trucks), By Rail & Road (Covered trucks) & Through vessel.
16.	Slag Scrap	52,500	Own generation	---	Internal Transfer (Covered trucks)
17.	SiMn.	29400	Own generation	---	Internal Transfer (Covered trucks)
18.	Hot Metal	5,60,000	Own generation	---	Through Ladle
19.	Lime	57,296	Odisha, Chhattisgarh, Jharkhand / Own Generation	~ 500 Kms	By Rail & Road (Covered trucks) / Internal Transfer (Covered trucks)
20.	MS Billet/ Ingots/ Bloom	11,02,500	Own generation	---	Roller Conveyers
21.	LDO /LSHS	5,200 KL	Nearby IOCL, BPCL & HPCL Depot	~ 100 Kms	By Road (Through tankers)
22.	Iron Ore	3,15,000	Odisha, Jharkhand &	~ 500 Kms.	By Rail & Through vessel.

S.No.	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
			Chhattisgarh		
23.	Sinter	10,92,000	Own Generation	---	Roller Conveyers
24.	Coke	4,82,160	Own generation	---	Internal Transfer (Covered trucks)
25.	Quartz	29,950	WB	~ 60 Kms.	Covered trucks
26.	Coking Coal	7,50,000	Jharkhand & Imported from Australia	~ 200 Kms	By Rail & Road (Covered trucks)& Through vessel.
27.	Coke Fines	93,000	WB, Odisha & Jharkhand	~ 250 Kms.	By Road (Covered trucks)
28.	Dust from SMS, BF, Coke Oven	1,08,200	Own generation	---	Internal Transfer (Covered trucks)
29.	Return fines from Sinter Plant	2,29,320	Own generation	---	Internal Transfer (Covered trucks)
30.	Manganese Ore	1,91,100	MOIL, OMC & Imported from South Africa & Indonesia	~ 600 Kms	By Rail & Road (Covered trucks) & Through vessel
31.	FeMn Slag	57,140	Own generation	---	Through Conveyor
32.	HG Iron ore	1,23,900	Chhattisgarh, Odisha , Jharkhand & Imported	~ 500 Kms.	By Rail & Road (Covered trucks) & Through vessel.
33.	Chrome Ore	1,59,600	Odisha & Imported from South Africa	~ 500 Kms	By rail, road (Covered trucks) & Through vessel.
34.	Bag filter dust	2,974	Own Generation	---	Through Pipeline
35.	Limestone/Dolomite	2,83,500	Chhattisgarh, Madhya Pradesh & Odisha	~ 500 Kms	By Rail & Road (Covered trucks)
36.	IOBP Tailings for Brick Plant- 350 Million Bricks/Year	5,28,000	Own generation	---	Covered trucks
37.	Cement	1,10,000	WB	~ 100 Kms	By Road (Covered trucks)
38.	Bed Material	88,200	Own generation	---	Covered trucks
39.	Fly Ash/ash	5,95,800	Own generation	---	Covered trucks
40.	Slag Dust	3,72,765	Own generation	---	Covered trucks
41.	Wet scrapper sludge	57,231	Own generation	---	Covered trucks
42.	Slag	4,05,000	Own generation	---	Covered trucks
Note: Own Railway siding is proposed upto the plant from Bero R.S. (3.5 Kms.)					

21.8.9 Water requirement for proposed project is estimated as 30,743 KLD and same will be sourced from anchet Reservoir of Damodar Valley Corporation, which is at distance of 8.0 Kms. Water drawl permission allocated by DVRRC has been obtained vide letter no. MD/DVRR/WA-6(145)/2022/744-48 dated 20-12-2022 to draw 6.0 MGD.

21.8.10 The total power requirement for the proposed project will be about 256.60 MW, this will be partly met from the Captive power plant of 183 MW & Remaining 73.6 MW will be sourced from the DVC/ WBSEDCL /WBSETCL.

21.8.11 Baseline Environmental Studies:

Period	1st March 2022 to 31st May 2022.
AAQ parameters at 12 locations	• $PM_{2.5}$ = 21.6 to 41.7 µg/m^3 • PM_{10} = 38.8 to 65.6 µg/m^3 • SO_2 = 7.0 to 13.1 µg/m^3 • NO_x = 7.4 to 18.4 µg/m^3 • CO = 245 to 598 µg/m^3

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

- Other Parameters such as O_3, Arsenic, Nickel, Lead, Ammonia, Benzene, BaP was found BDL

</td></tr>
<tr><td>AAQ modelling</td><td>

- Incremental GLCs due to the proposed project:
- PM_{10} = 7.0 µg/m^3 (2060 m E) ; PM_{10} = 1.18 µg/m^3 (Vehicular)
- SO_2 = 21.92 µg/m^3 (2400 m in E); NO_2 = 21.2 µg/m^3 (1850 m in E)
- NO_x (vehicular) = 7.79 µg/m^3 ; CO (vehicular) = 3.96 µg/m^3

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

- pH : 6.87 to 7.82
- TSS : 0.15 to 0.26 mg/l
- TDS : 515 to 839 mg/l
- Total Hardness : 244 to 432 mg/l
- Chlorides : 272 to 415 mg/l
- Fluoride : 0.36 to 0.64 mg/l
- Heavy metals (Iron -Fe) : 0.08 to 0.22 mg/l

</td></tr>
<tr><td>Surface water quality at 6 locations</td><td>

- pH : 7.13 to 7.67, DO (in mg/l) : 3.8 to 6.9,
- TDS (in mg/l) : 289 to 596, Chlorides (in mg/l) : 144 to 305, Sulphates (in mg/l) : 102 to 202,
- Heavy metals (Fe) (mg/ml): 0.16 to 0.62

</td></tr>
<tr><td>Noise levels</td><td>The equivalent day-night noise levels in the study zone are ranging from 48.05 dBA to 52.92 dBA.</td></tr>
<tr><td>Traffic assessment study findings</td><td>

- Traffic study has been conducted at SH # 5 - Asansol to Purulia
- Iron Ore & Coal will be transported through the own Railway Siding upto the project site from Bero RS and then to the plant in covered trucks by road.
- All other raw materials will be transported in covered trucks by road.
- Existing PCU is **548.8 PCU/Hr** & and existing level of service (LOS) is **0.36**

Road	**V (Volume in PCU/Hr)**	**C (Capacity in PCU/Hr)**	**V/C Ratio**	**LOS**
SH # 5	548.8	1500	0.36	Very Good

- PCU load after proposed project will be 548.8 (Existing) + 351 (Additional) PCU/Hr and level of service (LOS) will be: 0.599 PCU/hr

Road	**V (Volume in PCU/Hr)**	**C (Capacity in PCU/Hr)**	**V/C Ratio**	**LOS**
SH # 5	899.8	1500	0.599	Good

- Traffic Capacity as per the IRC 73: 1980 for highways road is 1500 PCU/Hr. Hence existing road can cater to this additional traffic due to the proposed project.

Level of Service (LOS) of the Road as per IRC 73: 1980

V/C	**LOS**	**Performance**
0.0 – 0.2	A	Excellent
0.2 – 0.4	B	Very Good

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

		0.4 – 0.6	**C**	**Good**
		0.6 – 0.8	D	Fair/ Average
		0.8 – 1.0	E	Poor
		1.0 & Above	F	Very Poor
	As per the above the LOS of the ROAD is categorised under 'C', which implies "GOOD". Hence the existing road is capable of taking the additional traffic load.			
Flora and fauna	No schedule-1 fauna within the study area			

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

S. No.	Waste / By product	Quantity (TPA)	Proposed method of disposal	AGREEMENT DETAILS FOR DISPOSAL
1.	Tailings from I/O Beneficiation	5,28,000	Tailings will be dewatered in filter press and subsequently the cake will be utilized in proposed Brick Manufacturing Unit.	Used in proposed Brick plant
2.	Ash/dust from Pellet plant	48,000	Will be utilized in the proposed Pellet Plant.	Used In own pellet plant
3.	Ash from PGP	93,600	Will be utilized in the proposed Brick Manufacturing Unit	Used in proposed Brick plant
4.	Tar from PGP	3600	Will be sold to local market or utilized in pellet plant	Used In own pellet plant
5.	Ash from DRI	2,35,200	Will be utilized in the proposed Brick Manufacturing Unit	Used in proposed Brick plant
6.	Dolochar from DRI	3,70,000	Will be used in proposed CFBC power plant as fuel.	Used In own CFBC Power plant
7.	Kiln Accretion Slag	20,160	Will be utilized in the proposed Brick Manufacturing Unit	Used in proposed Brick plant
8.	Ash from PowerPlant	2,35,632	Will be utilized in the proposed Brick manufacturing unit	Used in proposed Brick plant / Cement Plant
9.	Bed material from Power Plant	88,200	Will be utilized in the proposed Brick manufacturing unit	Used in proposed Brick plant
10.	SMS Slag (IF)	1,26,000	Slag from IF will be crushed and iron will be recovered &then remaining non-magnetic material being inert by nature will be utilized in the proposed Brick Manufacturing Unit.	Used in proposed brick plant after recovery of mag particles in SRP
11.	SMS Slag (BOF)	52,500	Slag from BOF will be crushed and iron will be recovered & then remaining non-magnetic material being inert by nature will be utilized in the proposed Brick Manufacturing Unit.	Used in proposed brick plant after recovery of mag particles in SRP
12.	SMS slag (EAF)	37,625	Slag from EAF will be crushed and iron will be recovered & then remaining non-magnetic material being inert by nature will be utilized in the proposed Brick Manufacturing Unit.	Used in proposed brick plant after recovery of mag particles in SRP
13.	Dust from SMS	39,200	Will be utilized in the proposed Sinter Plant.	Used Own Sinter Plant
14.	End Cuttings from Rolling Mill	31,500	Will be reused in the SMS	Used Own SMS Plant
15.	Mill scales from	3150	Will be reused in the sinter plant	Used Own Sinter

S. No.	Waste / By product	Quantity (TPA)	Proposed method of disposal	AGREEMENT DETAILS FOR DISPOSAL
	Rolling Mill			Plant
16.	Miss Roll from Rolling Mill	15,750	To be sold to local market	----
17.	Wet scrapper sludge	57,231	Will be utilized in the proposed Brick Manufacturing Unit	Used in proposed Brick plant
18.	Slag from Blast furnace	2,36,000	Granulated slag will be given to cement plants	----
19.	Dust from Blast Furnace	40,000	Will be reused in the sinter plant	Used Own Sinter Plant
20.	Dust from Coke Oven Plant	22,500	Will be reused in the sinter plant	Used Own Sinter Plant
21.	Fines from Sinter Plant	2,29,320	Will be reused in the sinter plant	Used Own Sinter Plant
22.	Slag from FeMn or	57,140	Will be reused in manufacture of SiMn as it contains high SiO_2 and Silicon.	---
	Slag from SiMn or	64,460	Will be used for Road construction/will be given to slag cement manufacturing	---
	Slag from FeCr	39,140	Will be processed in jigging plant for Chrome recovery. After Chrome recovery, the left-over slag will be analyzed for Chrome content through TCLP test, if the Chrome content in the slag is within the permissible limits, then it will be utilised for Road laying /brick manufacturing. If Chrome content exceeds the permissible limits, it will be sent to nearest TSDF.	---
23.	Slag dust from Slag Recycling Plant	3,52,625	Will be utilized in the proposed Brick Manufacturing Unit	Used in proposed Brick plant

Hazardous waste Generation:

1) Used Oil &Waste Oil : 12 KL/Annum
   Disposal: will be given to WBPCB approved Recyclers/reprocessors

2) Used batteries will be given back to the supplier under buyback arrangement.

21.8.13 Public Consultation:

Details of advertisement given	1) AAJKAL (Advt. on 25-08-2022) 2) SANMARG POST (Advt. on 25-08-2022) 3) MILLENNIUM POST (Advt. on 25-08-2022)
Date of Public Consultation	28th September 2022
Venue	Raghunathpur-1 Panchayat Samity Community Hall, Block Danga, Raghunathpur -1 Development Block, Purulia District, West Bengal
Presiding Officer	Additional District Magistrate
Major issues raised	The issues raised during Public Hearing are: • Pollution Control Measures • Development work in Local School • Employment • Medical / Health Facility • Development of local villages

	• Alternative water bodies & grazing field for animals • Greenbelt development

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	2nd Year	3rd Year	4TH Year	5TH Year	
			(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	
A). Based on Need Based & SIA Study								
1	**Community & Infrastructure Development**							
	i) Impart technical training to the local youth and women for skill development @ 100000 per candidate.	**Physical Nos. & village**	100 nos of local youth and women will be imparted training for skill development from 2 nos of villages i.e. Lachhmanpur & Siulibari,	90 nos of local youth and women will be imparted training for skill development from 2 nos of villages i.e. Jarukhamar & Maharajnagar.	90 nos of local youth and women will be imparted training for skill development from 2 nos of villages i.e. Senera & Talshankra.	85 nos of local youth and women will be imparted training for skill development from 2 nos of villages i.e. igardhi & Shikratyar.	85 nos of local youth and women will be imparted training for skill development from 2 nos of villages i.e. Jarka & Shimlon.	**450**
		Budget in Lakhs	100	90	90	85	85	
	ii) Construction of Skill Development Training Center.	**Physical Nos. & village**	Skill development to unemployed local youths and women through National Skill Development Corporation, Govt. of India Scheme. Construction of a building along with the necessary infrastructures for this purpose will be developed in 5 consecutive years. During 1st , 2nd & 3rd Year building will be constructed and in 3rd year onwards equipment will be installed					**160**
		Budget in Lakhs	40	40	30	30	20	
	iii) Construction of public toilets in nearby villages (120 nos @ 300000 per toilet)	**Physical Nos. & village**	20 nos- Lachhmanpur 10 nos- Siulibari	10 nos- Digardhi 10 nos- Shikratyar	30 nos- Senera 10 nos- Talshankra	5 nos- Jarukhamar 10 nos- Maharajnagar	5 nos- Jarka 10 nos- Shimlon	**360**
		Budget in Lakhs	90	60	120	45	45	
	iv) Laying of drinking water supply pipeline with overhead tanks in nearby villages (12 nos @ 1750000 per Drinking water supply facility)	**Physical Nos. & village**	2 no- Lachhmanpur 1 no- Siulibari	1 no- Digardhi 1 no- Shikratyar	2 no- Senera 1 no- Talshankra	1 no- Jarukhamar 1 no- Maharajnagar	1 no- Jarka 1 no- Shimlon	**210**
		Budget in Lakhs	52.5	35	52.5	35	35	

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION					TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year	2nd Year	3rd Year	4TH Year	5TH Year	
			(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	
	v) Street Lighting (Solar) provision at suitable public places in and around the nearby villages (235 nos @ Rs. 25,000/- per Solar Light)	**Physical Nos. & village**	40 nos- Lachhmanpur 20 nos- Siulibari	15 nos- Digardhi 20 nos- Shikratyar	60 nos- Senera 30 nos- Talshankra	15 nos- Jarukhamar 15 nos- Maharajnagar	10 nos- Jarka 10 nos- Shimlon	**58.75**
		Budget in Lakhs	15	8.75	22.5	7.5	5	
	YEAR WISE EXPENDITURE		**298**	**234**	**315**	**203**	**190**	**1238.75**
2	**Education**							
	i) Providing Sports kits to Schools/ Sports club (10 nos @ 100000 per Kit)	**Physical Nos. & village**	1 no- Lachhmanpur 1 no- Siulibari	1 no- Digardhi 1 no- Shikratyar	1 no- Senera 1 no- Talshankra	1 no- Jarukhamar 1 no- Maharajnagar	1 no- Jarka 1 no- Shimlon	**10**
		Budget in Lakhs	2	2	2	2	2	
	ii) Providing Model Anganwadi Centre/ renovation of existing center in consultation with State Govt (10 nos @ 3000000 per Center)	**Physical Nos. & village**	During 1st Year Lachhmanpur & Siulibari will be covered for renovation / provision of Model Anganwadi Center.	During 2nd Year Digardhi & Shikratyar will be covered for renovation / provision of Model Anganwadi Center.	During 3rd Year Senera & Talshankra will be covered for renovation / provision of Model Anganwadi Center.	During 4th Year Jarukhamar & Maharajnagar will be covered for renovation / provision of Model Anganwadi Center.	During 5th Year Jarka & Shimlon will be covered for renovation / provision of Model Anganwadi Center.	**300**
		Budget in Lakhs	60	60	60	60	60	
	iii) Providing furniture, computers, library, etc. for nearby local schools of villages (10 nos @Rs. 20.0 Lakhs per School)	**Physical Nos. & village**	During 1st Year Lachhmanpur & Siulibari will be provided with the facilities mentioned.	During 2nd Year Digardhi & Shikratyar will be provided with the facilities mentioned.	During 3rd Year Senera & Talshankra will be provided with the facilities mentioned.	During 4th Year Jarukhamar & Maharajnagar will be provided with the facilities mentioned.	During 5th Year Jarka & Shimlon will be provided with the facilities mentioned.	**200**
		Budget in Lakhs	40	40	40	40	40	
	iv) Digital education Class rooms in Govt. Schools (10 nos @	**Physical Nos. & village**	One no of classroom in each of the village (i.e. Lachhmanpur & Siulibari)	One no of classroom in each of the village (i.e. Digardhi & Shikratyar)	One no of classroom in each of the village (i.e. Senera & Talshankra)	One no of classroom in each of the village (i.e. Jarukhamar & Maharajnagar)	One no of classroom in each of the village (i.e. Jarka &Shimlon)	**150**

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION					TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year	2nd Year	3rd Year	4TH Year	5TH Year	
			(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	
	1500000		will be equipped with digital facilities.	will be equipped with digital facilities.	will be equipped with digital facilities.	will be equipped with digital facilities.	will be equipped with digital facilities.	
		Budget in Lakhs	30	30	30	30	30	
	YEAR WISE EXPENDITURE		**132**	**132**	**132**	**132**	**132**	**660**
3	**Health Facilities**							
	i) Regular health camps for local inhabitants specially for women & children. Outside workers would be tested for communicable disease.	**Physical Nos. & village**	Health checkup camps shall be organized in 12 nos nearby villages for general body, eyes, blood test and donation along with mass vaccination for polio, dengue, typhoid, malaria, etc. For this purpose, one doctor along with 2 – 3 assistants shall be deputed.					**1000**
		Budget in Lakhs	200	200	200	200	200	
	ii) Sanitation facility in existing schools, parks and other installations (10 nos @1500000 per Village)	**Physical Nos. & village**	Sanitation facilities to be provided to the village Lachhmanpur &Siulibari during 1st Year.	Sanitation facilities to be provided to the village Digardhi & Shikratyar during 2nd Year.	Sanitation facilities to be provided to the village Senera & Talshankra during 3rd Year.	Sanitation facilities to be provided to the village Jarukhamar & Maharajnagar during 4 th Year.	Sanitation facilities to be provided to the village Jarka & Shimlon during 5 th Year.	**150**
		Budget in Lakhs	30	30	30	30	30	
	iii) Sanitary Napkins Vending Machine in High Schools/ common facilities (10 nos @ 300000 per Facility)	**Physical Nos. & village**	Machines will be installed in schools / common facilities of village Lachhmanpur, Siulibari during 1st Year.	Machines will be installed in schools / common facilities of village Digardhi & Shikratyar during 2 nd Year.	Machines will be installed in schools / common facilities of village Senera & Talshankra during 3rd Year.	Machines will be installed in schools / common facilities of village Jarukhamar & Maharajnagar during 4th Year.	Machines will be installed in schools / common facilities of village Jarka & Shimlon during 5th Year.	**30**
		Budget in Lakhs	6	6	6	6	6	
	iv)Drainage Network for Domestic sewage in Villages	**Physical Nos. & village**	During 1st Year drainage network to be made/ strengthen in 2 nos of	During 2nd Year drainage network to be made/ strengthen in 2 nos of	During 3rd Year drainage network to be made/ strengthen in	During 4th Year drainage network to be made/ strengthen in 2 nos of	During 5th Year drainage network to be made/ strengthen	**280**

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION					TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year	2nd Year	3rd Year	4TH Year	5TH Year	
			(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	
			village i.e Lachhmanpur & Siulibari.	village i.e village Digardhi & Shikratyar.	2 nos of village i.e Senera & Talshankra.	village i.e Jarukhamar & Maharajnagar.	in 2 nos of village i.e Jarka & Shimlon.	
		Budget in Lakhs	150	50	30	30	20	
	v) RWH pits in the surrounding villages & De-siltation of ponds	**Physical Nos. & village**	2 nos of RWH pits to be made in Shikratyar & Siulibari and available ponds to be desilted.	2 nos of RWH pits to be made in Senera & Talshankra and Ponds to be desilted in Senera, Talshankra, Jarukhamar & Maharajnagar.	One no of RWH pits to be made in Jarka, & Shimlon	Desiltation of Settling Pits/ponds	Desiltation of Settling Pits/ponds	**330**
		Budget in Lakhs	40	100	40	100	50	
	YEAR WISE EXPENDITURE		**426**	**386**	**306**	**366**	**306**	**1790**
B). Based on Public Hearing								
1	**Regarding Control measures for abatement of Air Pollution due to the proposed project**	**Physical Nos. & village**	The physical Target for the entire activities shall be achieved in 3 years					**NA**
		Budget in Lakhs	Included in the EMP Cost					
2	**Development work in local schools, provision of study material & scholarships to be provided to meritorius students**	**Physical Nos. & village**	Schools of Lachhmanpur & Siulibari will be facilitated during 1st Year.	Schools of Digardhi & Shikratyar will be facilitated during 2nd Year.	Schools of Senera & Talshankra will be facilitated during 3rd Year.	Schools of Jarukhamar & Maharajnagar will be facilitated during 4th Year.	Schools of Jarka & Shimlon will be facilitated during 5th Year.	**270**
		Budget in Lakhs	80	60	50	40	40	
3	**Construction of Primary Health Center**	**Physical Nos. & village**	5 bedded Primary Health Center assisted by qualified Doctor and requisite para medical staffs for preliminary treatment of villagers and employees.					**800**
		Budget in Lakhs	200	200	150	150	100	
4	**Restoration of closed schools**	**Physical No. & Village**	Restoration of closed school of Digardhi and other villages to impart better education to school children.					**250**
		Budget in Lakhs	100	50	50	25	25	
5	**Construction**	**Physical**	Construction of alternative water bodies and grazing grounds for animals in					**400**

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION					TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year	2nd Year	3rd Year	4TH Year	5TH Year	
			(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	
	of alternative water bodies & grazing field for animals	**No. & Village**	near by villages					
		Budget in Lakhs	100	100	100	50	50	
6	**Repair and maintenance of existing village roads.**	**Physical No. & Village**	In Lachhmanpur & Siulibari villages	In Digardhi & Shikratyar villages	in Senera & Talshankra villages	in Jarukhamar & Maharajnagar villages	in Jarka & Shimlon in vilages.	**450**
		Budget in Lakhs	100	200	50	50	50	
7	**Greenbelt development As avenue and block plantation in villages**	**Physical No. & Village**	4 Kms of avenue plantation / 2000 Sqm of block plantation to be developed & maintained for 3 years in village Lachhmanpur, & Siulibari during 1st Year.	4 Kms of avenue plantation / 2000 Sqm of block plantation to be developed & maintained for 3 years in village Digardhi & Shikratyar 2nd Year.	4 Kms of avenue plantation / 2000 Sqm of block plantation to be developed & maintained for 3 years in village Senera &Talshankra during 3rd Year.	4 Kms of avenue plantation / 2000 Sqm of block plantation to be developed & maintained for 3 years in village Jarukhamar & Maharajnagar during 4th Year.	4 Kms of avenue plantation / 2000 Sqm of block plantation to be developed & maintained for 3 years in village Jarka & Shimlon during 5th Year.	**550**
		Budget in Lakhs	150	100	100	100	100	
8	**Development of local village roads**	**Physical No. & Village**	In Lachhmanpur & Siulibari villages	In Digardhi & Shikratyar villages	in Senera & Talshankra villages	in Jarukhamar & Maharajnagar villages	in Jarka & Shimlon in vilages.	**500**
		Budget in Lakhs	**150**	**100**	**100**	**75**	**75**	
	YEAR WISE EXPENDITURE		**880**	**810**	**600**	**490**	**440**	**3220**
	YEARWISE TOTAL EXPENDITURE		**1,736**	**1,562**	**1,353**	**1,191**	**1068**	**6909**

21.8.14 The capital cost of the project is Rs. 4591 Crores and the capital cost for environmental protection measures is proposed as Rs. 182.5 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 40.0 Crores. The employment generation from the proposed project is 8,000 nos. The details of cost for environmental protection measures is as follows:

S.No	Particulars	Capital Cost (Rs.in Crores)				Recurring Cost / Annum (Rs.in Crores)
		2023-2025	2025-2027	2027-2029	TOTAL	

S.No	Particulars	Capital Cost (Rs.in Crores)				Recurring Cost / Annum (Rs.in Crores)
		2023-2025	2025-2027	2027-2029	TOTAL	
1	**Air Emission Management**					
	• Electro Static Precipitators (ESP) - PELLET	---	3.5	3.5	7.0	1.5
	• Electro Static Precipitators (ESP) - COKE OVEN	---	---	7.0	7.0	0.75
	• Electro Static Precipitators (ESP) - Sinter plant	---	---	5.0	5.0	0.75
	• Electro Static Precipitators (ESP) - DRI Kilns	10	10	20	40	14.4
	• Electro Static Precipitators (ESP) - FBC boiler	---	---	8.0	8.0	1.5
	• Bag filters for I/O beneficiation	---	1.5	1.5	3.00	0.1
	• Fume Extraction system with bag filters - IF+EAF+BOF-SEAF	10	10	5.5	25.5	2.4
	• Dust catcher & Venturi Scrubber - MBF	---	---	7.5	7.50	0.75
	• other APCS & Conveyor systems	2.5	2.5	2.5	7.50	0.225
	• Stacks minor	2.5	2.5	2.5	7.50	0.225
	• Stacks major	5.0	5.0	3.75	13.75	0.36
	• Mechanical Dust sweepers	0.5	1.0	0.5	2.0	0.06
	• Water Sprinklers	0.3	0.3	0.2	0.80	0.04
2	**Wastewater Management**					
	• for New ETP	0.50	0.5	2.0	3.00	0.45
	• for STP	1.0	2.0	1.5	4.50	0.9
	• for Garland drains	0.2	0.2	0.1	0.50	0.05
	• for Settling ponds	0.02	0.02	0.02	0.06	0.006
3	**Solid waste Management**					
	• Fly Ash Handling & disposal	4.0	4.0	2.0	10.00	2
	• Slag Handling & Disposal	0.4	0.4	0.2	1.00	0.3
	• Hazardous waste storage & disposal	0.1	0.2	0.0	0.30	0.15
	• Municipal solid waste storage & disposal	0.1	0.1	0.0	0.20	0.1
4	Greenbelt development, Land scaping	1.5	1.5	0.0	3.00	1.34
5	Land scaping for Stream protection	1.0	0.0	0.0	1.0	0.25
6	Noise Management	0.5	0.5	0.0	1.0	0.5
7	RWH in Plant	1.0	1.0	0.0	2.0	0.036
8	Fire Safety Systems	4.0	3.0	3.0	10.00	1
9	**Environmental Monitoring**					
	• CEMS	2.0	1.0	0.9	3.90	0.01
	• CAAQMS	2.4	0.0	0.0	2.40	0.3
	• Environment Monitoring	0.0	0.0	0.0	0.00	0.3
	• Performance monitoring of	0.0	0.0	0.0	0.00	5.0

S.No	Particulars	Capital Cost (Rs.in Crores)				Recurring Cost / Annum (Rs.in Crores)
		2023-2025	2025-2027	2027-2029	TOTAL	
	APCS					
10	**Occupational Health & Safety**					
	• Occupational Health centre with Ambulance	1.0	0.0	0.0	1.00	0.2
	• Personal Protective Equipment's (PPEs)	2.0	1.0	1.0	4.00	4.0
	TOTAL	**52.52**	**51.72**	**78.17**	**182.41**	**39.95**
11	For Social Infrastructure Developmental Activities	10.11	10.32	5.31	25.74	----
	GRAND TOTAL	**62.63**	**62.04**	**83.48**	**208.15**	**39.95**

21.8.15 Greenbelt will be developed in 81.94 Ha. (202.5 Acres) out of 242.811 Ha. of land which is about 34% of the total project area. Total no. of plants will be 2,05,000 nos. which is 2500 nos. of plants will be planted per Hectare as per CPCB norms. nurtured within 4 years from the date of receipt of EC.

- It is proposed to cut 470 nos. of trees as part of proposed project. Tree Cutting Permission has been obtained from Forest Department, Raghunathpur Range, Kangsabati North Division by making required payment.
- Compensatory afforestation will be taken up @ 5 trees/plant is 2,350 nos. with in the project site premises, which accounts to 1.0 Ha. additional Greenbelt.
- Hence the Total Greenbelt will be 81.94 Ha. (202.5 Acres).

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

Written representations:

21.8.17 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 17.01.2023 through email dated 17.01.2023 submitted the Revised Action plan as per MoEF&CC O.M. dated 30/09/2020 which is updated at para 21.8.13 above.

Deliberations by the Committee

21.8.18 The Committee noted the following:

1. The instant proposal is for setting up of a new Integrated Steel plant comprising of Iron Ore Beneficiation Plant (2x1.5 MTPA) - 3.0 MTPA, Pellet Plant (2 x 1.2 MTPA) – 2.4 MTPA, Producer Gas Plant (14 x 5000 NM^3/Hr.)- 588 MNM3 per annum, DRI Kilns (8x600 TPD) – 1.68 MTPA, WHRB Power through DRI kilns – (8 x 15 MW)-120 MW ,Through BF - 18 MW , Through Coke Oven- 15 MW and CFBC based Power Plant of (2 x 15 MW)- 30 MW, SMS – IF (18 x 20 T) with LRF (6 X 20 T)- 1.26 MTPA, BOF (1 x 50 T) with LRF (1 x 50 T) and VD unit (1 x 50 T)- 0.525 MTPA and EAF (1 X 50 T)with LRF (1 x 50 T) - 0.175 MTPA, Rolling Mill through hot charging (3 x

1000 TPD) - 1.05 MTPA, Sinter Plant (1x 100 m2) – 1.092 MTPA ,Blast Furnace (1x750 m^3) – 0.7875 MTPA, Coke Oven Plant (Non recovery) – 0.5 MTPA, Ferro Alloys (4 x 9 MVA)- 0.084 MTPA, Oxygen Plant (1x250 TPD) -0.087 MTPA, Lime & Dolomite Plant (1x 450 TPD) – 0.1575 MTPA, Brick Manufacturing Unit -350 Million Bricks/Year & Slag Recycling Plant (1 x 150 TPD) – 0.0525 MTPA.

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. It was informed by the project proponent that Environment Clearance for the project site mentioned above was accorded by the Ministry vide letter no. J-11011/1283/2007-IA.II(I) dated 5/01/2010. However, the project activity could not be commenced due to financial issues. Subsequently, the land as well as EC was surrendered to WBIDC and MoEF&CC respectively. Therefore, proposed project is a Greenfield project.

6. The nearest human settlement from the site are Maharajnagar (0.02 Km, SE), Lachhmanpur (0.03 Km, E), Shikratyar (0.06 Km, S), Digardhi (0.05 Km, SE), Jarukhamar (0.54 Km, NW), Talshankra (1.7 Km, SW) and Senera (0.85 Km, S). The EAC advised that Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The PP shall also include some of these locations in its environmental monitoring programme.

7. There are 2 ponds in Digardhi village, a pond in Lachhmanpur and a pond in Siulibari village within the project site. There is Stream is passing along South West Boundary toward North direction approaching Panchet Reservoir. Apart from these UttalaNadi (3.5 Km, NW), Panchet Reservoir (8.0 Km, NNE), Panchet Dam (9.0 Km, NNE), Ramachandrapur Reservoir (10.2 Km, E), Maharajnagar Village Pond (0.4 Km, SE), Sikratyar village pond (Adjacent, S), Kelahi village pond (0.5 Km, W), Durmut Village Pond (2.9 Km, W), and Garh Panchkot Village Pond (3.8 Km, NEE) exists within the study area of the project site. The EAC is of the opinion that water body shall not be disturbed. Mitigation measures w.r.t. safeguarding the water body shall be implemented.

8. 30,743 KLD water will be required for the proposed project; which will be sourced from Panchet Reservoir of Damodar Valley Corporation.

9. Greenbelt will be developed in 81.94 Ha. (202.5 Acres) out of 242.811 Ha. of land which is about 34% of the total project area. Total no. of plants will be 2,05,000 nos. which is 2500 nos. of plants will be planted per Hectare as per CPCB norms. nurtured within 4 years from the date of receipt of EC. The Committee deliberated on the action plan and budget allocation for green belt development and found it satisfactory.

10. It is proposed to cut 470 nos. of trees as part of proposed project. Tree Cutting Permission has been obtained from Forest Department, Raghunathpur Range, Kangsabati North Division by making required payment. Compensatory afforestation will be taken up @ 5 trees/plant is 2,350 nos. within the project site premises, which accounts to 1.0 Ha. additional Greenbelt.

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

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

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 written submission of the Project Proponent and found it satisfactory.

15. The Committee also deliberated upon the letter of State Forest Department w.r.t. non-involvement of forest land and found it satisfactory.

16. During deliberation, the stated that there will generation of tailing about 0.5 million ton per year through filter press and they are putting matching capacity brick manufacturing plant to consume the tailing. The PP also appraised that they will maintain a stock of solid tailing production of 45 days in the designated area.

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:

21.8.19 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 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 company 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 washing plant shall be dewatered in filter press and stored dry maximum for a period of 45 days inside the plant premises.

(iv) 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.

(v) Sinter Plant
   a. Sinter cooler waste recovery system shall be installed to generate process steam or power.
   b. Equipped with MEROS technology to reduce emission of SO2, NOx and heavy metals.

(vi) Coke Oven Plant
   a. Coke Dry Quenching (CDQ) shall be installed.
   b. Coke Oven Gas shall be desulfurized.
   c. Tar sludge shall be mixed with coal and reused.

(vii) 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.

(viii) Secondary fume extraction system shall be installed on converters of Steel Melting Shop.

(ix) Basic Oxygen Furnace (BOF) gas shall be cleaned dry.

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

(xi) Action plan for setting up of captive railway siding for transportation of materials shall be implemented.

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

(xiii) 85-90 % of billets/slabs shall be rolled directly in hot stage. Only 10-15 % rolling shall be done through RHF using only Light Diesel Oil or Mixed BF/CO gas.

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

(xv) The nearest human settlement from the site are Maharajnagar (0.02 Km, SE), Lachhmanpur (0.03 Km, E), Shikratyar (0.06 Km, S), Digardhi (0.05 Km, SE), Jarukhamar (0.54 Km, NW), Talshankra (1.7 Km, SW) and Senera (0.85 Km, S). Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The PP shall also include some of these locations in its environmental monitoring programme.

(xvi) 30,743 KLD water will be required for the proposed project; which will be sourced from Panchet Reservoir of Damodar Valley Corporation. Necessary permission shall be obtained from the Competent Authority in this regard. No ground water extraction is permitted.

(xvii) There are 2 ponds in Digardhi village, a pond in Lachhmanpur and a pond in Siulibari village within the project site. Action plan for conservation of Digardhi Village Pond and Sikratyar village pond shall be strictly implemented.

(xviii) There is Stream is passing along South West Boundary toward North direction approaching Panchet Reservoir. Apart from these UttalaNadi (3.5 Km, NW), Panchet Reservoir (8.0 Km, NNE), Panchet Dam (9.0 Km, NNE), Ramachandrapur Reservoir (10.2 Km, E), Maharajnagar Village Pond (0.4 Km, SE), Sikratyar village pond (Adjacent, S), Kelahi village pond (0.5 Km, W), Durmut Village Pond (2.9 Km, W), and Garh Panchkot Village Pond (3.8 Km, NEE) exists within the study area of 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.

(xix) PP shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, shall be prepared to develop them into model villages. PP shall submit details of the villages to be adopted.

(xx) The Action Plan for the Panch-tatva (5 commitments) including fossil fuel reduction road map and net-zero carbon emissions shall be strictly implemented.

(xxi) 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. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.

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

(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) 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.

(xxv) Three tier Green Belt shall be developed covering at least 33% of the total project area maximum in the 1st 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. PP shall develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy to act as green barrier for air pollution & noise levels towards the villages namely Maharajnagar (0.02 Kms), Lachhmanpur (0. 03 kms),Shikratyar (0.06 Kins) and Digardhi (0.05 kms) inside the plant premises. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

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

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

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

(xxix) Air Cooled condensers shall be used in the captive power plant.

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

(xxxi) The environmental issues arising out from the route for producing of billets shall be controlled and mitigation measures be implemented.

(xxxii) 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.

(xxxiii) 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.

(xxxiv) 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.

(xxxv) 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 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 O_2 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. The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in 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 as amended from time to time;
iv. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
v. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
vi. Tyre washing facilities shall be provided at the entrance of the plant gates.
vii. Treated water from ETP of COBP shall not be used for coke quenching.
viii. Water meters shall be provided at the inlet to all unit processes in the steel plants.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

i. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
ii. Restrict Gas flaring to < 1%.

iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
iv. Provide LED lights in their offices and residential areas.
v. Ensure installation of regenerative type burners on all reheating furnaces.

VI. Waste management

i. 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 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", when PP comes for EC proposal. This study shall be formulated keeping in view of India's Net-zero commitment at the COP-26 Climate Summit.

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 by the PP.
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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Re-Consideration in Environmental Clearance

Agenda No. 21.9

21.9 Amalgamation & Modification cum Expansion by M/s 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, 100,800 TPA Sinter Plant and addition of Pig Iron as product from the Existing Submerged Arc Furnace, located at Village: Nakrajoria, P.O.: Salanpur, District: Paschim Burdwan, West Bengal-Re-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]

21.9.1 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 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.

21.9.2 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

21.9.3 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

21.9.4 The project of M/s Eloquent Steel Pvt Ltd. located at village: Nakrajoria, P.O.: Salanpur, District: Paschim Bardhaman, West Bengal State is for amalgamation of two Environment Clearances [EC of M/s Hira Concast Ltd. 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. transferred in the name of M/s Eloquent Steel Pvt. Ltd on 15.10.2020 vide F.No. 11011/188/2011-IA.II(I)] and seeking modification cum expansion for production of 336,000 TPA Billets through modification of existing 4x7 Ton Induction Furnace to 4x8 Ton, installation of new 2x8 Ton Induction Furnace with 1x8Ton LRF & 2x4/7m CCM and 2x25Ton Induction Furnaces with 1x25Ton LRF & 3x6/11m CCM and production of 210,000 TPA MS Rolled products (Long products- TMT Bar, MS Round & Wire Rod) by installation of 600TPD Rolling Mill along with 1x25TPH Reheating Furnace. Also, 1x25TPH Briquette plant for production of 150,000TPA Chrome Ore Briquettes, 1x300TPD Sinter Plant for production of 108,000TPA Iron Ore Sinter are also proposed under the proposed expansion with addition of "Pig Iron' as product from the existing 3x7.5 MVA + 1x5.5 MVA Submerged Arc Furnaces with maximum production capacity of 76,400 TPA within the existing premises of 9.089 Ha (22.46 acres).

21.9.5 Environmental Site Settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details submitted by the PP</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></table></td><td>-</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td></td><td></td><td><table><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>

21.9.6 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 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

M/s Eloquent Steel Pvt. Ltd.	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.

21.9.7 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	--

21.9.8 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 (Submerged Arc Furnace)	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 additional facilities	Pig Iron-76400	3x7.5 MVA + 1x5.5 MVA SAF with metal recovery Plant	Fe-Mn-59,052, or Si. Mn-43,236, or Fe Si – 22,680, or High Carbon Ferro Chrome –	--

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	
													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	--	--
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	--

21.9.9 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	--	--
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**			

21.9.10 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.

21.9.11 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.

21.9.12 Baseline Environmental Studies:

<table>
<tr><th>Period</th><th>1st December 2019 to 29th February 2020</th></tr>
<tr><td>AAQ parameters at 8 Locations (min and max)</td><td>• $PM_{2.5}$: 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</td></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 +</td></tr>
</table>

<table>
<tr><th>Period</th><th>1st December 2019 to 29th February 2020</th></tr>
<tr><td></td><td>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>
<tr><td>NH-19</td><td>4663.0</td><td>15000</td><td>0.31</td><td>B</td></tr>
</table>
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.</td></tr>
<tr><td>Flora and fauna</td><td>There is no Schedule-1 Species of Flora and Fauna in the study area</td></tr>
</table>

21.9.13 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	
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	--

Type of Waste	Source	Quantity generated (Total) in Tons (TPA)	Mode of Treatment	Disposal	Remarks
		Total After Expansion			
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 treatment required	Will be used for cement industries as a raw material	--
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	Briquette Plant	8,250	Reused	Shall be recycled	--

Type of Waste	Source	Quantity generated (Total) in Tons (TPA)	Mode of Treatment	Disposal	Remarks
		Total After Expansion			
Plant					
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.					

21.9.14 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

S. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1st Year	2nd Year	3rd Year	
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	
		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

S. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1st Year	2nd Year	3rd Year	
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
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**

21.9.15 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

Sl. No.	Environmental Protection Measures	Proposed Rs. in Lakhs	
		Capital Cost	Recurring Cost
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**

21.9.16 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.

21.9.17 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, MOEFCC

21.9.18 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	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	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

S. No.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by IRO/ Response by PP
			EC date	Specific	General	
	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).	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).				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 generated and report to be submitted to the Regional Office.	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 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.

S. No.	Non- compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by IRO/ Response by PP
			EC date	Specific	General	
						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 during 12th EAC (Industry-1) meeting held on 30.08.2022:

21.9.19 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	M/s Eloquent Steel Pvt Ltd will be carrying out plantation

S. No.	Observations	Reply by PP
	have a plan for Continuous greenbelt development within the plant premises year on year	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.	15 KLD 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.

21.9.20 The project was initially considered in 12th EAC (Industry-1) meeting held on 30.08.2022 and the after appraisal detailed deliberations, the committee recommended the instant expansion proposal for grant of Environment Clearance.

21.9.21 MoEF&CC further examined the proposal and communicated the observations vide letter dated 28.11.2022 to the project proponent as follows:

"The Ministry has further examined the proposal and noted that 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. Further both the ECs got transferred in the name of M/s Eloquent Steel Pvt. Ltd. by the Ministry. ***However, the proponent has not done the amalgamation of the two units and it is also not mentioned in expansion application that expansion has been sought in which of the above two ECs. Further, the EC which has been uploaded in Form i.e. F. No. J-11011/188/2011-IA-II (I) dated 20.9.2012 for the purpose of expansion is not a valid***

EC and it was not transferred to PP since it could not be implemented within EC validity period.

In view of the above, the undersigned is directed to say that the recommendation of EC for grant of expansion EC may not be accepted at this stage and Project Proponent shall need to revise the application along with other reports to seek amalgamation of the two valid ECs already transferred to the PP and afterwards the proposal will be apprised by the EAC to look into the matter of amalgamation and subsequently for expansion of amalgamated ECs accordingly. In this regard the undersigned is directed to request Project Proponent to revise the application/EIA/EMP reports in terms of amalgamation of the two projects for further consideration by the EAC accordingly."

21.9.22 The project proponent vide letters dated 19.09.2022, 12.10.2022, 23.12.2022 and 28.12.2022 has submitted the ADS reply:

Revised EIA Report for "*Amalgamation & Modification cum 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, 100,800 TPA Sinter Plant and addition of Pig Iron as product from the Existing Submerged Arc Furnace at Village: NakraJoria, P.O.: Salanpur, District: Paschim Burdwan, West Bengal*" was uploaded on MoEF&CC Portal.

The observations of the EAC during appraisal of the project and reply submitted by ESPL have been incorporated in the revised EIA Report. Following are the changes in the submitted EIA/EMP Report:

- M/s ESPL is now proposing for amalgamation of two Environment Clearances [EC of M/s Hira Concast Ltd. 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. transferred in the name of M/s Eloquent Steel Pvt. Ltd on 15.10.2020 vide F.No. 11011/188/2011-IA.II(I)] and seeking modification cum expansion for production of 336,000 TPA Billets through modification of existing 4x7 Ton Induction Furnace to 4x8 Ton, installation of new 2x8 Ton Induction Furnace with 1x8Ton LRF & 2x4/7m CCM and 2x25Ton Induction Furnaces with 1x25Ton LRF & 3x6/11m CCM and production of 210,000 TPA MS Rolled products (Long products- TMT Bar, MS Round & Wire Rod) by installation of 600TPD Rolling Mill along with 1x25TPH Reheating Furnace. Also, 1x25TPH Briquette plant for production of 150,000TPA Chrome Ore Briquettes, 1x300TPD Sinter Plant for production of 108,000TPA Iron Ore Sinter are also proposed under the proposed expansion with addition of "Pig Iron' as product from the existing 3x7.5 MVA + 1x5.5 MVA Submerged Arc Furnaces with maximum production capacity of 76,400 TPA within the existing premises of 9.089 Ha (22.46 acres).
- 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).
- Water Balance has been revised reducing the makeup water requirement from 2140 KLD to 1970 KLD
- Air modelling for CO performed using AERMOD Software is added in the EIA report.

- Particulate matter emission from all stacks will be kept below 30 mg/Nm^3.
- Sewage Treatment Plant is proposed in the plant in place of septic tank.
- Monitoring of Performance of Pollution Control will be conducted every six months.
- As an environmental safeguard measures to minimize the impact on the nearby village Digari and Salanpur at 0.6 km and 1.4 km, respectively in South Direction, 24 Numbers of water sprinklers will be installed on the boundary wall of the plant facing these villages.
- EMP cost has been revised accordingly.

21.9.23 MoEF&CC vide letter dated 28.11.2022 also issued Show-Cause notice to EIA Consultant, M/s Vardan Environet regarding following points:

Para 3

"Whereas, the proposal cited above was considered during the 12th meeting of Expert Appraisal Committee [EAC] (Industry-1) held on 30-31st August, 2022 wherein the representatives of project proponent as well as M/s Vardan EnviroNet Pvt. Ltd. gave a presentation before the EAC. After deliberations, the Committee inter-alia observed 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."

Reply submitted by M/s Vardan Environet:

"As already communicated vide email dated 31.08.2022, the word STP was erroneously typed at one page number 141 of the EIA report. Such typing errors are unintentional in nature. However, Consultant apologise for the same and will ensure that they are not repeated and avoided in future."

Para 4

"Whereas, the Ministry examined the proposal and noted that 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. Further both the ECs got transferred in the name of M/s Eloquent Steel Pvt. Ltd. by the Ministry. The proponent has not done the amalgamation of the two units, further previous EC which has been uploaded in Form i.e. F. No. J-11011/188/2011-IA-II (I) dated 20.9.2012 has not been transferred as it could not be implemented and validity expired. It is noted that there are substantive shortcomings/ typing error in the EIA/ EMP report and in Form 2 by the Consultant."

Reply submitted by M/s Vardan Environet:

"Consultant were unaware of the procedure for amalgamation of environmental clearances. Now, updated EIA report for Amalgamation and Modification cum expansion of the project has been uploaded on Parivesh Portal."

The EAC deliberated the reply of Consultant and directed the Consultant that they should be aware about all the procedure and provisions of the EIA Notification, 2006 and various OMs/Guidelines issued under the Notification of 2006.

21.9.24 The project was again considered in 21st EAC (Industry-1) meeting held during 16-17th January, 2023. The deliberations and recommendations of the EAC are as follows:

Written representations during 21st EAC (Industry-1) meeting held on 16-17th January, 2023:

21.9.25 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 19.01.2023 through email dated 19.01.2023 has requested for considering the instant revised proposal for amalgamation & modification cum expansion.

21.9.26 **Deliberations by the Committee**

The project was initially considered in 12th EAC (Industry-1) meeting held on 30.08.2022 and the after appraisal detailed deliberations, the committee recommended the instant expansion proposal for grant of Environment Clearance. However, based on the observations made by MoEF&CC and the ADS letter dated 28.11.2022 issued to M/s Eloquent Steel Pvt. Ltd. and SCN dated 28.11.2022 issued to Consultant, the EAC reconsidered the proposal in its 21st meeting held on 16-17th January, 2023 and deliberated on the submission of PP and the Consultant w.r.t. to the queries raised by MoEF&CC.

The Committee noted the following:

1. The instant proposal is revised for amalgamation of two Environment Clearances [EC of M/s Hira Concast Ltd. 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. transferred in the name of M/s Eloquent Steel Pvt. Ltd on 15.10.2020 vide F.No. 11011/188/2011-IA.II(I)] and seeking modification cum expansion for production of 336,000 TPA Billets through modification of existing 4x7 Ton Induction Furnace to 4x8 Ton, installation of new 2x8 Ton Induction Furnace with 1x8Ton LRF & 2x4/7m CCM and 2x25Ton Induction Furnaces with 1x25Ton LRF & 3x6/11m CCM and production of 210,000 TPA MS Rolled products (Long products- TMT Bar, MS Round & Wire Rod) by installation of 600TPD Rolling Mill along with 1x25TPH Reheating Furnace. Also, 1x25TPH Briquette plant for production of 150,000TPA Chrome Ore Briquettes, 1x300TPD Sinter Plant for production of 108,000TPA Iron Ore Sinter are also proposed under the proposed expansion with addition of "Pig Iron' as product from the existing 3x7.5 MVA + 1x5.5 MVA Submerged Arc Furnaces with maximum production capacity of 76,400 TPA within the existing premises of 9.089 Ha (22.46 acres).

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 revised 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 revised 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 earlier written submission of PP on the issues raised by EAC during meeting and found it satisfactory.

16. The EAC also warned the Consultant to be careful while submitting the information.

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.

19. 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.

20. The EAC deliberated the reply of Consultant and directed the Consultant that they should be aware about all the procedure and provisions of the EIA Notification, 2006 and various OMs/Guidelines issued under the Notification of 2006.

Recommendations of the Committee:

21.9.27 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant amalgamation & modification cum 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 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 half-yearly 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. 21.10

21.10 Setting up of integrated stainless-steel plant comprising of steel melting shop of 2,08,400 TPA and rolling mill of 2,00,000 TAP by M/s. Ambica Steels India Limited, located at Mokhana Village, Bhuj Tehsil, Kachchh District, Gujarat– Consideration of Environmental Clearance.

[Proposal No. IA/GJ/IND1/405311/2022; File No. IA-J-11011/508/2021-IA-II(IND-I)]
[Consultant: M/s Greencindia Consulting Private Limited; Valid upto 22.02.2023]

21.10.1 M/s. Ambica Steel India Limited has made an online application vide proposal no. IA/GJ/IND1/405311/2022 Dated 30th November 2022 along with copy of EIA/EMP report, Form – 2 and certified compliance report seeking Environmental Clearance under EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

21.10.2 The proposal was considered during 19th meeting of the EAC for Industry-I sector held on 16th & 19th December, 2022 wherein after detailed deliberations, the committee recommended the

proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of specific conditions and general conditions.

21.10.3 In the instant case, the project proponent has requested for amendment in some of the specific conditions stipulated for their recommended project in the minutes of the 19th meeting of the EAC for Industry-I sector held on 16th & 19th December, 2022 as follows:

Sl. No.	Page No. of Minutes	Para / Point No.	Information as per Minutes of Meeting	Details to be corrected	Justification / Remarks submitted by the PP and deliberation by the EAC.
1.	38	19.2.18 A. Specific Condition (x)	85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil as a fuel. Natural gas shall be used as a fuel. Alternatively, till such time Natural gas is available, LDO shall be used in RHF. DRI kiln shall run on coal.	RHF shall operate using only Light Diesel Oil as a fuel. Natural gas shall be used as a fuel. Alternatively, till such time Natural gas is available, LDO shall be used in RHF.	Stainless steel will be rolled in different grades after bringing it to room temperature. Hence this condition of "85-90 % of billets shall be rolled directly in hot stage" is nit applicable in this case. Hence that point needs to be removed. The EAC deliberated the issues and found in order.
2.	38	19.2.18 A. Specific Condition (xi)	100 % solid waste and dolochar generated in the facility shall be utilized	100 % solid waste generated in the facility shall be utilized	No dolochar will be generated from the proposed project since there is no use of coal in the proposed project. Hence dolochar word needs to be removed. The EAC deliberated the issues and found in order.
3.	38	19.2.18 A. Specific Condition (xiii)	Si-Mn slag shall be used for road construction and cement making. SMS slag shall be crushed for metal and flux recovery and aggregate shall be used for the purposes such as road construction, brick manufacturing and filling up of low-lying area etc	SMS slag shall be crushed for metal and flux recovery and aggregate shall be used for the purposes such as road construction, brick manufacturing and filling up of low-lying area etc.	The proposed projct does not involve generation of Silico Manganese (Si-Mn) slag. Hence the Si-Mn slag needs to be removed. The EAC deliberated the issues and found in order.

Deliberations and Recommendations by the EAC:

21.10.4 The EAC deliberated on the clarification submitted by the project proponent pertaining to aforementioned conditions and based on the justification of PP, noted that the request of PP may be accepted and **recommended** for the incorporation of the above mentioned corrections/ modifications in the minutes of the meeting as detailed in the table at para 21.10.3 above.

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Additional items with the permission of the Chairman

Agenda No. 21.11

21.11 **Expansion of Total Production Capacity from 92500 to 235000 MTPA and augmentation of integrating melting and rolling facility by M/s Kundlas Loh Udyog, located at Village Baliana, Tehsil Baddi & District Solan, Himachal Pradesh – Consideration of TOR. [Proposal No. IA/HP/IND/288268/2022; File No. IA-J-11011/350/2017-IA-II(I)]**

21.11.1 M/s. Kundlas Loh Udyog has made an application online vide proposal no. IA/HP/IND/288268/2022 dated 15.11.2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category "B" EIA Notification, 2006. However, due to the applicability of general condition i.e., interstate boundary of Haryana and Himachal Pradesh at distance of 3.16 Km in west direction, the project is being appraised at the Central level as Category 'A'.

21.11.2 The above mentioned proposal was earlier considered and recommended by EAC in its 18th EAC meeting held during 28-29th November 2022. The matter has been examined in the Ministry.

21.11.3 The unit is located at Baddi, Himachal Pradesh. As per Hon'ble NGT order dated 13.12.2018 "CPCB to rank industrial units on pollution levels"; the CEPI score of Baddi, Himachal Pradesh is 69.07, hence it falls under SPA (Severely Polluted Area). The EAC was of the opinion that PP shall comply with the CEPI guidelines.

21.11.4 The proposal was further examined in the Ministry and it was observed that the mitigation measures for the proposed project has not been submitted as per CEPI guidelines. Accordingly, it was deliberated by the Ministry to re-consider the proposal by EAC to examine the mitigation measures adopted by PP as per CEPI guidelines.

21.11.5 Accordingly, the instant proposal was further considered by EAC in its 21st meeting held during 16-17th January 2023. The PP has submitted the following various steps taken by the Kundlas Loh Udyog, Baddi, to mitigate the pollution in this Severely polluted area (SPA) as per CEPI guidelines.

S. No.	Enviro-nment	Mitigation Measures as per MoEF&CC order No. Q-16017/38/2018-CPA	Compliance to Conditions
1	Air	Stipulations of conditions such as: Stack emissions levels should be stringent than the existing standards in terms of the identified critical pollutants CEMS may be installed in all large/medium red category industries (air polluting) and connected to SPCB and CPCB server.	Stack monitoring has been done and emissions levels for critical pollutants are well within the limits Online Continuous Emission Monitoring System (OCEMS) has already been installed with the stack. Fugitive dust emission is expected from DG sets and Induction Furnace. Side suction hoods are

		Effective fugitive emission control measures should be imposed with the process, transportation, pacing etc. Transportation of material by rail/conveyor belt, wherever feasible. Encourage use of cleaner fuels (pet coke/furnace oil/ LSHS may be avoided). Best available technology may be used. Electric arc Induction furnace will be installed in place of Cupola furnace. Increase of Green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible. Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. 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.	provided with Induction furnace and adequate stack height of 30 m is exists and 5 m stack of DG set is also there. Transportation of raw material will be done by road only from local market. Only Diesel is being used as fuel for DG set, which is operated in case of power failure only. Induction furnace is being used at the existing premises and same is proposed after expansion At present, 10% green area is being maintained. Further, 0.42 Acres (0.17Ha.) land has been purchased outside the premises to compensate the green area to be maintained at the project site. Presently only 10 trucks (30 PCU) are involved for transportation of raw material and product. Existing roads are sufficient to carry out the proposed productions.
2	Water	Stipulations of conditions such as: Reuse/recycle of treated wastewater, wherever feasible. Continuous monitoring of effluent quality/quantity in large and medium red category Industries (Water polluting) A detailed water harvesting plan may be submitted by project proponent Zero liquid discharge wherever techno-economically feasible. In case, domestic wastewater generation is more than 10 KLD, the industry may install STP.	1400 KLD Water is being recycled back for cooling purpose within the industry. There is no effluent generated from the unit. The unit is not water polluting industry. Water harvesting plan has already been submitted. The project is based on Zero Liquid Discharge. Water is being recycled back for cooling purpose within the industry. 15 KLD STP has been provided at project site to treat the domestic wastewater. Treated wastewater from STP is being used for Gardening, sprinkling on road for

			dust suppression and cleaning purposes.
3	Land	Stipulations of conditions such as: Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever, feasible for new projects. Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/PCCs. More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in co-processing.	At present, 10% green area is being maintained. Further, 0.42 Acres (0.17Ha.) land has been purchased outside the premises to compensate the green area to be maintained at the project site. Slag from induction furnace is being given to block manufacturing industry. Only APCD Dust from cyclones & Bag filters are hazardous materials generated on site, which is being stored and transported to the nearest TSDF site Shivalik Solid Waste Management Ltd. for Secured Landfill.
4	Other Condition (Additional)	Monitoring of compliance of EC conditions may be submitted with third party audit every year The % of the CER may be at least 1.5 times the slabs given in the OM dated 1.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance.	The monitoring report of Compliance status of earlier EC stipulations by RO, MoEFCC has been obtained. Rs. 44 Lakhs (1.5 times of the 1% of proposed expansion cost of the project) has been proposed for CER activities.

Deliberations and Recommendations by the EAC:

21.11.6 The EAC deliberated on the information submitted by the project proponent pertaining to aforementioned mitigation measures as per CEPI guidelines and based on the information of PP, noted that the steps taken by the PP may be accepted and **recommended** for the incorporation of the above mentioned mitigation measures in the minutes of the meeting as detailed in the table at para 21.11.5 above.

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Agenda No. 21.12

21.12 Expansion in existing Environmental Clearance granted capacity of Integrated Cement Plant - Clinker: 2.0 to 4.5 Million TPA, Cement: 4.0 to 6.0 Million TPA, Waste Heat Recovery Power Generation: 20 to 40 MW and installation of Captive Power Plant: 25 MW, DG Sets of 2000 KVA (1000/500/250/125 KVA) along with Railway Siding at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan) by M/s Shree Cement Limited– Consideration of Environmental Clearance.
[Proposal No.: IA/RJ/IND1/407182/2022; File No. J-11011/1173/2007-IA.II (I)]

21.12.1 Shree Cement Limited has made an online application vide proposal no. IA/RJ/IND1/407182/2022 dated 2nd December, 2022 along with copy of EIA/EMP Report, Forms (Part A, B and C) and Certified Compliance Report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006, as amended thereof for the project mentioned above. The proposed project activity is listed at schedule no. 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.

21.12.2 The above mentioned proposal was considered by the EAC (Industry-I) in its 19th meeting held during 16th & 19th December, 2022, wherein, the Committee after deliberations, recommended to **defer** the proposed project and **recommended for site visit** of the proposed project area by a sub-committee of EAC Industry-1 members before taking final decision in the matter.

21.12.3 Accordingly, a sub-committee of EAC Industry-1 members was constituted vide an office order dated 09th January, 2023 comprising of Dr. J. K. Pandey, Dr. S. Raghavan and Representative of MoEFCC.

21.12.4 The aforesaid site-visit of M/s Shree Cement Limited at Gothra, Jhunjhunu, Rajasthan has already been conducted on 13th – 14th January, 2022. The Sub-committee informed to the EAC that site visit report is under preparation and shall be submitted to the EAC in due course of time. After submission of the report by the sub-committee, the visit report may be shared to the PP for modification in the mitigation measures and action plan in the EIA/EMP Report, if any, required.

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Agenda No. 21.14

23.13 Expansion of existing Integrated Steel Plant to final capacity of Iron Ore Beneficiation Plant 2 MTPA, Pellet Plant 1.2 MTPA, Sponge Iron Plant 0.3 MTPA, Sinter Plant 1.75 MTPA, Blast Furnace 1.27 MTPA, Steel Products (SMS & Rolling Mill) 1.5 MTPA, Coal Washery 1 MTPA, Coke Oven Plant (Non-Recovery Type) 0.5 MTPA, Ferro Alloy Plant 0.125 MTPA, Lime Dolo Plant 0.165 MTPA, Oxygen Plant 0.302 MTPA, CPP- 215 MW of M/s Aarti Steels Ltd., located at Village-Ghantikhal, Tehsil-Athagarh, District-Cuttack, Odisha– Consideration of TOR.

[Proposal No. IA/OR/IND/278468/2022; File No. J-11011/287/2007-IA. II(I)]

23.13.1 This refers to the online application of M/s Aarti Steels Ltd., made vide proposal No. IA/OR/IND/278468/2022 dated 18/11/2022 in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No.3(a) Metallurgical Industries (Ferrous & Non-Ferrous), 2(b) Mineral Beneficiation, 1(d) Thermal Power Plants, 2(a) Coal Washeries, & 4(b) Coke Oven Plants, for the various existing and proposed units, under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

23.13.2 The proposal cited above was considered during the 18th meeting of Expert Appraisal Committee [EAC] (Industry-I) held on 28th-29th November, 2022, wherein. the Committee recommended to **defer** the proposed project and recommended for site visit of the proposed project area by a subcommittee of EAC Industry-1 members comprising of Dr. S.K. Singh and Dr. Ranjit Prasad 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.

23.13.3 Accordingly, the sub-committee of EAC Industry-1 comprising of Dr. S.K. Singh and Dr. Ranjit Prasad and Representative of MoEFCC, has already been conducted site visit on 14th – 15th January, 2022. The Sub-committee informed to the EAC that site visit report is under preparation and shall be submitted to the EAC in due course of time. After submission of the report by the sub-committee, the visit report may be shared to the PP for modification in the mitigation measures and action plan in the EIA/EMP Report, if any, required.

The meeting ended with thanks to the Chair.

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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,	• Sampling as per CPCB guidelines • Collection of AAQ data (except in monsoon season) • Locations of various
• PM_{10}			
• SO_2			
• NOx			
• CO			

Attributes	Sampling		Remarks
	Network	Frequency	
• HC • Other parameters relevant to the project and topography of the area		CPCB Notification.	stations for different 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			
Parameters for water quality • pH, temp, turbidity, magnesium hardness, total alkalinity,	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		

Attributes	Sampling		Remarks
	Network	Frequency	
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	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 • Additional traffic due to proposed project • Parking arrangement	-		
E. Land Environment			
Soil	Soil samples be collected as per BIS specifications		

Attributes	Sampling		Remarks
	Network	Frequency	
• Particle size distribution • Texture • pH • Electrical conductivity • Cation exchange capacity • Alkali metals • Sodium Absorption Ratio (SAR) • Permeability • Water holding capacity • Porosity			
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 areas /coastal regulation zone (CRZ) **Terrestrial** • Vegetation-species list, economic	• Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. Indicator species which indicate ecological and environment degradation should be identified and included to clearly state whether the proposed project would result in to any adverse effect on any species. • Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site. • For forest studies, direction of wind should be considered while selecting forests. • Secondary data to collect from Government offices, NGOs, published literature.		

Attributes	Sampling		Remarks
	Network	Frequency	
importance, forest produce, medicinal value • Importance value index (IVI) of trees • Fauna • Avi fauna • Rare and endangered species • Sanctuaries / National park / Biosphere reserve • Migratory routes			
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	16.01.2023	17.01.2023
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. S. K. Singh	Member	***Present***	***Present***
6.	Dr. Tejaswini Ananthkumar	Member	***Present***	***Present***
7.	Dr. Hemant Sahasrabuddhe	Member	***Present***	***Present***
8.	Dr. Jai Krishna Pandey	Member	***Present***	***Present***
9.	Dr. E V R Raju	Member	***Present***	***Present***
10.	Dr. B. N. Mohapatra, DG, (Representatives of NCCBM)	Member	***Absent***	***Absent***
11.	Shri Nazimuddin, Scientist 'F' (Representative of CPCB)	Member	***Present***	***Present***
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	***Present***	***Present***
14.	Dr. R.B. Lal, Scientist F, MoEFCC	Member Secretary	***Present***	***Present***
MoEFCC				
15.	Dr R P Rastogi	Scientist C	***Present***	***Present***
16.	Dr Sandeepan BS	Scientist B	***Present***	***Present***

ANNEXURE-4

Approval of EAC Chairman

Email **MoEFCC Dr R B LAL**

Re: Compiled Draft minutes of the 21st EAC Meeting held on January 16-17, 2023 for approval of the Chairman of EAC

From : rajivekumar1983@gmail.com Fri, Jan 27, 2023 03:02 PM

Subject : Re: Compiled Draft minutes of the 21st EAC Meeting held on January 16-17, 2023 for approval of the Chairman of EAC

To : Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>

Cc : chairman eac ind 1 <chairman.eac.ind.1@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 minutes are approved.

Kindly do the needful.

Best wishes
Rajive Kumar
Chairman EAC Industry-1

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