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

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Dated: 01.11.2022

Date of Zero Draft MoM sent to EAC: 26.10.2022
Approval by Chairman:31.10.2022
Uploading on PARIVESH: 01.11.2022

MINUTES OF THE 15th EXPERT APPRAISAL COMMITTEE (INDUSTRY-1 SECTOR) MEETING HELD ON OCTOBER 17-18, 2022

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

Time: **10:30 AM onwards**

OCTOBER 17, 2022 [MONDAY]

(i) Opening Remarks by the Chairman, EAC

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

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

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

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

(iii) Confirmation of the Minutes of the 14th Meeting of the EAC (Industry-1 Sector) held during September 29-30, 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 **14th Meeting of the EAC (Industry-1 Sector) held during September 29-30, 2022** conducted through Video Conferencing (VC), and noted that no request has been received for modifications/factual correction, in the minutes of the 14th EAC meeting for the project/activities, and confirmed the same.

(iv) Correction/Corrigendum of the Minutes of the 12th Meeting of the EAC (Industry-1 Sector) held during 30-31st August, 2022 and 14th meeting of the EAC (Industry-I Sector) held on 29-30th September, 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 **12th Meeting of the EAC (Industry-1 Sector) held during 30-31st August, 2022 and 14th meeting of the EAC (Industry-I Sector) held on 29-30th September, 2022** conducted through Video Conferencing (VC), and noted the following correction, w.r.t. deletion/correction of statement as underlined in the table below:

MoM	Agenda No.	Page No.	Correction/Corrigendum	
			As per MoM	**Shall be read as**
Minutes of 12th meeting of the EAC for Industry-I sector held on 30-31st August, 2022	12.6 (M/s. Ultratech Cement Limited)	146	The Member Secretary (Industry-I), also appraised the EAC during the meeting that Ministry issued an OM vide No. 11/20/2018-ESZ dated 29th June, 2022 regarding the compliance of judgement dated 03.06.2022 of the Hon'ble Supreme Court in IA No. 1000 of 2003 in W.P. (C) No. 202 of 1995: T.N Godavarman vs. Union of India & Ores. Hon'ble Supreme Court, in its order dated 3rd June 2022, inter-alia, directed that each Protected Forest i.e., National park or Wild life sanctuary must have an ESZ of minimum 1 km measured from the demarcated boundary of such protected forest in which the activities prescribed. Further, mining within national parks and wildlife sanctuaries shall not be permitted and no new permanent structure shall be permitted to come up for whatsoever purpose within ESZ and power has been vested in Central Empowered Committee to decide any ESZ where the above norms cannot be made applicable. Since this order will have an adverse impact on the existing mechanism of approving ESZ, the Ministry is planning to file an appeal/review in this regard.	The Member Secretary (Industry-I), also appraised to the EAC during the meeting that Ministry issued an OM vide No. 11/20/2018-ESZ dated 29th June, 2022 regarding the compliance of judgement dated 03.06.2022 of the Hon'ble Supreme Court in IA No. 1000 of 2003 in W.P. (C) No. 202 of 1995: T.N Godavarman vs. Union of India & Ores. Hon'ble Supreme Court, in its order dated 3rd June 2022, inter-alia, directed that each Protected Forest i.e., National park or Wild life sanctuary must have an ESZ of minimum 1 km measured from the demarcated boundary of such protected forest in which the activities prescribed. Further, mining within national parks and wildlife sanctuaries shall not be permitted and no new permanent structure shall be permitted to come up for whatsoever purpose within ESZ and power has been vested in Central Empowered Committee to decide any ESZ where the above norms cannot be made applicable.
Minutes of 14th meeting of the EAC for Industry-I sector held	14.8 (M/s. ACC Ltd.)	130 - 131	It was also appraised to the EAC during the meeting that the Ministry issued an OM vide No. 11/20/2018-ESZ dated 29th June, 2022 regarding the compliance of judgement dated 03.06.2022 of the Hon'ble Supreme Court in IA No. 1000 of 2003 in W.P.	It was also appraised to the EAC during the meeting that the Ministry issued an OM vide No. 11/20/2018-ESZ dated 29th June, 2022 regarding the compliance of judgement dated 03.06.2022 of the Hon'ble Supreme Court in IA No. 1000 of 2003 in W.P.

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on 29-30th September, 2022			(C) No. 202 of 1995: T.N Godavarman vs. Union of India & Ores. Hon'ble Supreme Court, in its order dated 3rd June 2022, inter-alia, directed that each Protected Forest i.e., National park or Wild life sanctuary must have an ESZ of minimum 1 km measured from the demarcated boundary of such protected forest in which the activities prescribed. Further, mining within national parks and wildlife sanctuaries shall not be permitted and no new permanent structure shall be permitted to come up for whatsoever purpose within ESZ and power has been vested in Central Empowered Committee to decide any ESZ where the above norms cannot be made applicable. Since this order will have an adverse impact on the existing mechanism of approving ESZ, the Ministry is planning to file an appeal/review in this regard. Thus, the Committee also deliberated the proposal taking into account the Ministry's OM dated 29th June, 2022 in pursuance to judgment of Hon'ble Supreme Court dated 3rd June, 2022. EAC is of the view that the said Unit is located outside the ESZ.	(C) No. 202 of 1995: T.N Godavarman vs. Union of India & Ores. Hon'ble Supreme Court, in its order dated 3rd June 2022, inter-alia, directed that each Protected Forest i.e., National park or Wild life sanctuary must have an ESZ of minimum 1 km measured from the demarcated boundary of such protected forest in which the activities prescribed. Further, mining within national parks and wildlife sanctuaries shall not be permitted and no new permanent structure shall be permitted to come up for whatsoever purpose within ESZ and power has been vested in Central Empowered Committee to decide any ESZ where the above norms cannot be made applicable. Thus, the Committee also deliberated the proposal taking into account the Ministry's OM dated 29th June, 2022 in pursuance to judgment of Hon'ble Supreme Court dated 3rd June, 2022. EAC is of the view that the said Unit is located outside the ESZ.
Minutes of 13th meeting of the EAC for Industry-I sector held on 14-15 September, 2022	13.8 M/s Ramnik Power & Alloys Pvt. Limited		In para 13.8.14, the date of Public Hearing is mentioned 24.01.2021.	In para 13.8.14, the date of Public Hearing may be read as 24.01.2022. This is a typo error.

(v) Discussion on early submission of site visit report by the sub-committee of EAC

It was brought to the notice of EAC (Industry-1) that the Ministry requested for early submission of site visit report by the sub-committee of EAC for the project which were recommended for site visit during the appraisal of the project in the EAC meeting. The Ministry's

request was considered by the EAC in its 15th meeting (Industry-I sector) held on 17-18th October, 2022 wherein, Chairman, EAC (Industry-I) deliberated with the EAC members and concluded that the report of the site visit for any project shall be submitted by the sub-committee of EAC (Industry-1) maximum within 3-4 days of undertaking the site visit. The EAC members agreed with the decision of the Chairman, EAC (Industry-I).

Consideration of Environmental Clearance Proposals

Agenda No. 15.1

15.1 Proposed Standalone Cement Grinding Unit, Production capacity of 1,03,500 TPA, over an extent of 1.59.44 Ha (159454.16 Sq.m) by M/s Ottathingal India Pvt. Ltd., located at Plot No. B1, SF. No. 1599 (P), 1600 (P), 1601(P) SIPCOT, Pirancheri Village, Tirunelveli Taluk (Now Manur Taluk) & District, Tamil Nadu. – Consideration of Environmental Clearance.

[Proposal No. IA/TN/IND/290087/2021; File No. J-11011/93/2021-IA-II(I)]
[Consultant: Aadhi Boomi Mining & Enviro Tech (P) Ltd; valid upto 22.10.2024]

15.1.1 M/s. Ottathingal India Pvt Ltd has made an online application vide proposal no. IA/TN/IND/290087/2021 dated 21st September 2022 along with copy of EIA/EMP report, Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(b) Cement Plants under Category "B" of the schedule of the EIA Notification, 2006. However, due to the applicability of general condition i.e., project site is located at a distance of 3km from the boundary of the Gangaikondan Spotted Deer Sanctuary for which final ESZ notification was issued by MoEF&CC vide S.O. 2773 (E) dated 31/07/2019, the project is being appraised at the central level as Category 'A'.

15.1.2 Name of the EIA consultant: M/s. Aadhi Boomi Mining & Enviro Tech (P) Ltd. [S. No. 121, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2124/RA 0228valid till 22.10.2024; Rev. 25, Sept 05, 2022].

Details submitted by Project proponent

15.1.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
05.04.2021	34th meeting of EAC held on 15-16th April, 2021	Terms of Reference	29.04.2021	28.04.2025

15.1.4 The project of M/s. Ottathingal India Private Limited located in plot no. B1, Sipcot, Village Pirancheri, Tehsil & District Tirunelvelli, Tamil Nadu is for Proposed standalone cement grinding unit (WOPC) production capacity of 300 TPD or 1,03,500 TPA.

15.1.5 Environmental Site Settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>1.59 Ha (15944.16 sq m) [Gov Land]</td><td>Land use: SIPCOT Industrial Land</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC, O.M. dated 7/10/2014.</td><td>The land has been acquiesced from Tamil Nadu State Government, The memorandum of lease deed entered into at Gangaikondan on 03.05.2019 between SIPCOT and Ottathingal India Pvt. Ltd. The lease period for the proposed factory is 99 years.</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

R & R is not applicable.

Study Area
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Vengadasalapuram</td><td>0.25 km</td><td>N</td></tr>
<tr><td>Pirancheri</td><td>2.6 km</td><td>N</td></tr>
<tr><td>Gangaikondan</td><td>4.0 km</td><td>NE</td></tr>
<tr><td>Chittarchatram</td><td>3.0 km</td><td>N</td></tr>
<tr><td>Manur</td><td>9.5 km</td><td>W</td></tr>
<tr><td>Kanarpatti</td><td>9.5 km</td><td>NW</td></tr>
</table></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>1.</td><td>8°50’57.30”N</td><td>77°44’33.86”E</td></tr>
<tr><td>2.</td><td>8°50’57.90”N</td><td>77°44’30.12”E</td></tr>
<tr><td>3.</td><td>8°51’0.33”N</td><td>77°44’31.19”E</td></tr>
<tr><td>4.</td><td>8°51’2.88”N</td><td>77°44’31.81”E</td></tr>
<tr><td>5.</td><td>8°51'2.69"N</td><td>77°44'34.58"E</td></tr>
</table></td><td>-</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>63 m AMSL</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>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drianage, Canal etc.,) exists within the project site as well as study area</td><td><u>Project Site:</u> Nil

<u>Study area:</u>
<table>
<tr><th>Place</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Gangaikondan tank</td><td>3.7 km</td><td>East</td></tr>
<tr><td>Chittar River</td><td>3.2 km</td><td>North</td></tr>
<tr><td>Karisalkulam</td><td>2.4 km</td><td>North</td></tr>
<tr><td>Parakiram-pandiyan kulam</td><td>5.3 km</td><td>Northeast</td></tr>
<tr><td>Palamadai Kulam</td><td>6.5 km</td><td>West</td></tr>
<tr><td>Thamirabarani River</td><td>8.11 km</td><td>Southeast</td></tr>
<tr><td>Tirunelveli Canal</td><td>7.3 km</td><td>South</td></tr>
<tr><td>Seliyanallur Canal</td><td>6.9 km</td><td>Northwest</td></tr>
<tr><td>Uppodai River</td><td>6.5 km</td><td>Northeast</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><u>Study area</u>
• <u>Name of the ESZ/ESA:</u> Gangaikondan Spotted Deer Sanctuary – 3km
• <u>Status of Notification:</u> Project site is located at a distance of 3km from the boundary of the Gangaikondan Spotted Deer Sanctuary for which final ESZ notification was issued by MoEF&CC vide S.O. 2773 (E) dated 31/07/2019
• Authenticated map of ESZ projecting distance of ESZ from project site is included in EIA report.

Others:
Vallanadu Black Buck Sanctuary -21Km-SE
Mundanthurai Tiger Reserve-43 Km-SW
Bird Sanctuary – 4.5 km - E

List of Reserved and protected forests:
Gangaikondan Protected Forest – 600m – East
Talaiyattu Reserve forest – 1.1 km – West</td><td>NOC from competent authority – District Forest officer, Tirunelveli Division has been got by SIPCOT officials dated: 25.03.2010</td></tr>
</table>

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

S. No.	Description	Capacity
1	Cement Grinding Plant	300 TPD or 1,03,500 TPA

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

S. No.	Raw Material	Quantity required per annum	Source	Distance from site (Kms)	Mode of Transportation
Construction Phase					
1	Cement	1189.936 MT	Local Market - Aurora Ready Mix Concretes 369/1b,	5km	By Road
2	Sand	1641.69952 MT			

S. No.	Raw Material	Quantity required per annum	Source	Distance from site (Kms)	Mode of Transportation
3	Aggregate	2163.7854 MT	Mangamma Salai, Palamadai, Tirunelveli-627 359, Opp. To SIPCOT Gangaikondan, Tamil Nadu.		
4	REBAR	157.2223 MT	Safi Traders, Trivandrum Road, Ramvilas Nagar, Perumalpuram, Udaya Nagar, Tirunelveli-627 005, Tamil Nadu.	15km	By Road
Operational Phase					
	Clinker	91080 MT	Imported from Middle East	1900 km	By Ship
	Gypsum	8280 MT	Local Market	Within 100km	By Road
	Dolomite	4140 MT	Local Market	Within 100km	By Road

15.1.8 The water requirement for the proposed project is estimated as 8 m^3/day of fresh water requirement will be obtained from the SIPCOT Industrial Park water supply if available, or it will be sourced from a well or bore well.

15.1.9 The power requirement for the proposed project is estimated as 1026.45 KW, which will be obtained from TNEB Grid.

15.1.10 Baseline Environmental Studies:

Period	01.10.2021 to 31.12.2021 (Post Monsoon Season)
AAQ parameters at 8 locations	$PM_{2.5}$ = 18 To 33 μg/m^3 PM_{10} = 40 To 60 μg/m^3 SO_2 = 3 to 12 μg/m^3 NOx = 6 To 20 μg/m^3 CO = BDL (<0.1) To 0.12 mg/m^3
AAQ modelling	PM_{10} = 0.1 μg/m^3 (Level at 50m in South Direction) SO_2 = 6.93 μg/m^3 (Level at 50m in South Direction) NOx = 9.69 μg/m^3 (Level at 50m in South Direction)
Ground water quality at 8 locations	pH: 7.11 to 8.97, Total Hardness: 166 to 320 mg/l, Chlorides: 51 to 87 mg/l, Heavy metals – Fe - BDL (<0.1) To 0.01 mg/m3
Surface water quality at 8 locations	pH: 8.20 to 9.5 ; DO: 2.9 to 5.2 mg/l and BOD: 1.4 to 3 mg/l COD: 24 to 48 mg/l
Noise levels (Day and Night) 8 locations	39.2 to 45.8 dBA for the day time and 37.6 to 42.1 dBA for the Night time.
Traffic assessment study findings	Traffic study has been conducted at NH/SH/MDR 7 (4 lane) which is approximately 3.3km East (distance) from the plant site. Transportation of raw material, fuel & finished product will be done 80% by road. Existing PCU is 5423 PCU/day on NH 7 (NH/SH/MDR) and existing

	level of service (LOS) is: **Road** | **V (Volume in PCU/day)** | **C (Capacity in PCU/day)** | **Proposed V/C Ratio** | **LOS** NH 7 | 5423 | 10,000 | 0.5423 | C PCU load after proposed project will be 5423 (Existing)+120 (Additional) = 5543 PCU/hr and level of service (LOS) will be **Road** | **V(Volume in PCU/day)** | **C(Capacity in PCU/day)** | **Proposed V/C Ratio** | **LOS** NH 7 | 5543 | 10,000 | 0.5543 | C * Note: Capacity as per IRC73:1980 Guide line for Capacity for roads. **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 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 **Conclusion:** The level of service will remain 'C' after including additional traffic due to proposed project. Accordingly there will not be any adverse impact on the traffic due to the proposed expansion.
Flora and fauna	There is no schedule I fauna and endangered Flora noticed in Project site and its buffer area.

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

S. No.	Type of Waste	Quantity generated (TPA)	Mode of Treatment	Disposal	Remarks
1.	Bio Sludge generated from STP (Construction Phase)	23 kg/day or 0.023 TPD	-	Sold to authorised recyclers/ Vendors	Agreement will be made at the commencement of project
2.	Used or Spent Oil (Hazardous waste)	—	—	Stored in MS drums and sold to authorised recyclers	
3.	Bio Sludge generated from STP (Operational Phase)	16 kg/day or 0.016 TPD		Sold to authorised Vendors for manufacture of manures, recycle and reuse	

S. No.	Type of Waste	Quantity generated (TPA)	Mode of Treatment	Disposal	Remarks
Hazardous Waste: Spillages of lubricants used for operation of plant and machineries, shall be collected properly using tray as not to disturb the surface soil, water bodies, underground water etc. Waste Lubricant Oil will be stored in HDPE drums.					

15.1.12 Public Consultation:

Date of advertisement	Notice made through advertisement in the Newspapers 'Times of India' and 'Thina Thanthi on 07.06.2022
Date of public consultation	15.07.2022 at 11.00 AM
Venue	Dr. P. Sivanthi Athithanar Thirumana Mandapam located at 37 B, Madurai Main Road, Sankar Nagar, Tirunelveli Taluk, Tirunelveli District, , Tamil Nadu.
Presiding Officer	DRO, Tirunelveli district
Major issues raised	Submitted along with Action Plan and Budget

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

S. No	Queries Raised by Public	Replied by Project Proponent/EIA Consultant	Budget in Rupees	Time Line
1	**Mr.S.P.Muthuraman, Shankar Nagar, Tirunelveli:** This Ottathingal India Pvt Ltd, company came from Malapuram, Kerala State to set up a factory in this SIPCOT. Another name for Kerala is Gods own country, they say it is Gods own country because they protect the nature. Tamil Nadu is called as 'Vantharai Vazhavaikkum Thamizhgam'. Essential commodities like vegetables and eggs are being exported from Tamil Nadu to Kerala. But, the people of Kerala are not giving water to Tamil Nadu. They have come from Kerala, we will give them all the facilities and make them live. But they won't even give us water. I want to ask the Tamil Nadu Pollution Control Board Engineer for an explanation. This company purchased 3.94 acres of land from SIPCOT. According to your Board Proceeding Order, the SIPCOT must have consent to operate license under the category -1079. But so far SIPCOT has not received the board's approval. Even though the board asked to get approval in the year of 2018 and now, the company did not get approval.	Mr. S.P. Muthuraman has not given any views related to the proposed project except about the employment opportunity. The project proponent assured that preference will be given to the local people for employment opportunities.	No budget required for this.	The project proponent assures that after the commencement of our project, the employment will be generated for the local people.

S. No	Queries Raised by Public	Replied by Project Proponent/EIA Consultant	Budget in Rupees	Time Line
	If I go out without wearing a helmet or if I don't wear a seatbelt in the car, I get fined. So he said whether all the laws are only for private individuals or not applicable to government institutions, whoever is to respect the law. I have brought an offense before the District Revenue Officer that Sterlite Pvt. Ltd has been shut down due to non-grant of operating mandate. A law for Sterlite, a law for SIPCOT? He also requested that action should be taken through the head office of the District Pollution Control Board Engineer. Due to the introduction of SIPCOT, poor people have to pay Rs. 3000 to Rs. 5000 as house rent. Companies in SIPCOT campus are providing jobs to North Indians, but the educated people here are unemployed. So the economy of the people here is not improving and they are suffering. The Scheme is hosted by SIPCOT. In 2009, the SIPCOT companies submitted applications to the town and country planning that they were going to start an industrial estate in an area of more than 500 hectare in the Tirunelveli districts SIPCOT area, Pirancheri village. On 30.04.2010 Town and Country Planning gave permission to SIPCOT layout. The Environmental Impact Assessment Notification 2006 of the Government of India is in force at the time of granting this permission. According to this, as per Schedule 7A, wherever the industrial park is set up, environmental clearance should be obtained. After obtaining such environmental clearance consent under the Water (Prevention and Control of Pollution) Act, 1974 and Air Prevention and Control of Pollution) Act, 1981 should be obtained. After setting up the factory, an operating consent must be obtained under the above Acts. But the SIPCOT has not yet received any such permission. Because of Reserve Forest in that area, As per the instructions of Town and country planning, SIPCOT company requested the permission of the Forest Department, Mr. Ambrose, District Officer, Tirunelveli on 25.03.2010 and the No objection was issued. He said that the environment clearance from the Union Ministry, which should have been given and actually obtained, was not obtained.			

S. No	Queries Raised by Public	Replied by Project Proponent/EIA Consultant	Budget in Rupees	Time Line
	Gangaikondan is in middle of SIPCOT. A four-lane road is on the east side of SIPCOT. The east side of which is declared as the Gangaikondan Spotted Deer Sanctuary, which is in the Gangaikondan Part 1 Revenue Village. It has 195 spotted deer. I ask District Revenue officer to note what I say. The Forest Department census says there are 196 spotted deer. Only this area had been declared as a Spotted Deer Sanctuary. There are 107 Spotted Deer in the middle of SIPCOT in Gangaikondan Part 2 Revenue Village (Reserve Forest). 600 meters west of this is the Thalaiyuthu Reserve Forest which has an area of more than 500 hectare. There are 212 Spotted Deer in this Reserve Forest, and that area has not been notified as a sanctuary. There are 107 Spotted Deer in Gangaikondan Part 2 Revenue Village. It is not declared a sanctuary. Only Gangaikondan Part 1 has been declared as a sanctuary. He also asked if anyone has brought this to the attention of the Tirunelveli district administration. These deer are hit and killed everywhere. They also died because of stray dog bite. Forest department have given information under information act that 62 deer have died in 10 years, but not even a single case has been registered by the Forest Department. All the deer in the Thalaiyuthu (Reserve Forest) had migrated and around 150 deer have settled permanently in Abhishekapatti Manonmaniyam Sundaranar University. Is that university a reserve forest? The front wall of the Spotted Deer Sanctuary had damaged. So the Deer can get out easily and the deer can easily jump 10meters high walls. Railway line is situated at the back of the sanctuary without any enclosure. Spotted deer went to Rajavallipuram sandal wood farm for food and 50 deer have settled there. Our area is not Western Ghats. These, three (Reserve Forest) are within the town and from three places there are 5 spots of spotted deer. The Forest department has not taken any steps to protect these deer. Thus the habitat of deer had been migrated into SIPCOT. Only a letter from the District Forest Officer had been received, and the environment remains unsettled. He also asked whether this area will be considered			

S. No	Queries Raised by Public	Replied by Project Proponent/EIA Consultant	Budget in Rupees	Time Line
	as industrial area or Forest area for noise pollution assessments. If you will take Standards for Industrial zones then what about the condition of the deer roaming in the SIPCOT campus at night time. Do you allow someone to operate without the environment becoming peaceful? In this regard, I had submitted a petition to the Tamil Nadu Pollution Control Board and Town and country planning Department. Town and country planning Department said that environmental approval should be achieved but it was not achieved. The Tamil Nadu Pollution Control Board said that it had sent a complaint to State level Environmental Impact Assessment Authority, Tamil Nadu for appropriate action. State level Environmental Impact Assessment Authority told that they have set the matter to the Pollution Control Board and Town and country planning Department to take appropriate action. Environment should be protected. Kerala does not allow anyone to carry soil. But here we are destroying nature. SIPCOT allows water based company by settling up a big water station in the Thamiraparani River. There, a company called Aquafina buys 1 liter of water for 60 paisa, filters it and sells it for 20 rupees. Does this increase our economy? They take water from our river and sell at 20 rupees and make a profit for them, Why SIPCOT is giving permission to the water based companies? It may give water to companies that don't need more water. We have duty and responsibility to protect our forest. At least 75% of the companies are giving jobs to North Indians. Tirunelveli Corporation has set up waste water treatment plant and they are discharging the treated sewage in to the channel. This treated effluent can be used as a substitute for Thamiraparani river water for the use of SIPCOT companies. Water from Thamiraparani River could be provided for drinking water purpose and essential needs. All we need in the time of Corona is food and Nature. Corona came to us because nature was not properly maintained. So it is good for people to live in harmony with nature. I request to do it and give jobs to the people.			

S. No	Queries Raised by Public	Replied by Project Proponent/EIA Consultant	Budget in Rupees	Time Line
2	**Mr.R.Prabhakar, Pastor of the Christian Church, Shankar nagar, Thaazhaioothu:** As far as Tirunelveli district is concerned, it is a district where there are more farmers. This district really needs a lot of industries. Tirunelveli was once known as the Oxford of south India. Now there is a lack of employment opportunities for the youth. Therefore Tirunelveli district needs a lot of industries. But the development of the industry should be done in a way nature and environments are not affected. Even though I don't know a lot of things, my request is that there are no job opportunities for the local people in the factories coming up in SIPCOT. I welcome what the first person has said. There are many local educated youths but there are no job opportunities for the youths here. Employment is denied for local people since other state people come and work here. Therefore, whatever kinds of factories are built here, the authorities should try to give priority to the local youth in employment, so that all the eligible people will be given job opportunities regardless of their caste. I believe that economy of the local people will rise because of these employments.	The project proponent assured preferences will be given only to the local people for employment opportunities.	No budget required for this.	The project proponent assures that after the commencement of our project, the employment will be generated for the local people.
3	**Mr. Uchimakali, 14th Ward Councilor of Pirancheri Panchayat:** There is already a lot of Environmental issues on the SIPCOT campus. Sanitation issue is caused by Suguna Company located in SIPCOT, and a lot of companies are also responsible for this issue. By the time the Cement plant is set up, almost 12 villages have to be evacuated due to smoke. There is no other way. So don't set up the Cement Plant in SIPCOT complex. Already we are suffering without a path to our land by giving away our agricultural land for SIPCOT industrial complex. At present they are still taking land in Rajapathi and its surrounding villages for the expansion of SIPCOT. The above said land is taken for setting up solar plant. We are protesting against solar plant. Also in SIPCOT campus no employment opportunities are provided to local people or to those who have given land. So don't set up a Cement Plant in SIPCOT complex.	It is standalone cement grinding unit. As there are no burning activities in this plant, no smoke will be expected from this plant. The Unit has been proposed with adequate Air pollution Control measures such as provisions of bag filter at the source of air pollution to minimize dust emissions. The expansion of SIPCOT is government process not covered under this project. Local people will be given preference for Employment according to their educational qualification if required for the particular Job available.	The budget allocated for installing Pulse Jet Type Bag Filters to control dust generated is Rs.9.41 Lakhs --	The time line for installing the bag filters is within 9 months during the construction phase. -- The project proponent assures that the local people will be given employment after the commencement of the cement factory.

S. No	Queries Raised by Public	Replied by Project Proponent/EIA Consultant	Budget in Rupees	Time Line
4	**Mr. George Rajendiran, Social activist, Thuraiyur, Gangaikondan:** I would like to point out one important thing here. It is on the basis of Hon'ble justice Mr. Rathinavel Pandian's report that the present SIPCOT factory complex had been built. For whatever purpose he had recommended it to the government, it is now necessary for the District Administration to better monitor it. The SIPCOT campus was built for the sole reason of the stopping caste riots in the Southern Districts. But contrary to his report, malpractice is going on in the SIPCOT campus. All the factories that are currently functioning acts against to the fact that the SIPCOT complex was set up to prevent caste riots. Even though our people are qualified and talented, they are denied from jobs. All the jobs are given to northern people only. We lost our place. We lost our land. We even lost our livelihood and we are losing everything. We could live by growing cattle. Comparisons should be made on the environment at the SIPCOT between current situation where Pepsi and Coco cola companies had been set up and year before 2000. It is now certain that there is contamination. The people of that time did not get skin disease, but many of the people living in the area now have skin disease, so we can say with proof that the toxin that causes skin disease is emitted from factory. The factories should be monitored in this regard.	Caste riot is irreverent to the project, still adequate representation from different communities will be ensured during Employment opportunities. There is no usage of hazardous materials/chemicals/toxic element as raw material which may contaminate soil or water. The major impact may be due dust pollution. The Unit has been proposed with adequate Air pollution Control measures such as provisions of bag filter at the source of air pollution to minimize dust emissions. 33% of the total plot area is allocated for developing green belt such as Casurina, Eucalyptus, Ashoka Tree, Neem and Badham trees which minimize the dust Pollution and arrest noise pollution. Moreover this proposed grinding unit is a dry process which does not require water for the process. Thus no effluent will be generated from the process. The only wastewater is municipal waste water and will be treated in permanent built soak pit and septic tank within the project site. Thus due to the Proposed Cement Grinding Unit the possibility of occurrence of Skin problems is negligible.	-- The budget allocated for installing Pulse Jet Type Bag Filters to control dust generated is Rs.9.41 Lakhs and for green belt development in and around the project site is Rs.1,20,000. The cost for construction of soak pit and septic tank is included in the overall construction cost.	The project proponent assures that the employment will be given to all categories of people. The time line for installing the bag filters within 9 months during the construction phase and for green belt development is 3 years after the commencement of the cement plant. The time line construction of soak pit and septic tank is within 9 months during the construction phase
5	**Mr. Murugapperumal 9th Ward Panchayat Council Member, Pirancheri:** Pump sets and well are located in my place	The purpose of Baseline analysis is for the quality	Nil	Nil

S. No	Queries Raised by Public	Replied by Project Proponent/EIA Consultant	Budget in Rupees	Time Line
	(Survey no at 87 & 88) at Pirancheri village. But it was reported that samples were taken from land with survey no 89 and analysed. But the well water of my land which is near 100 meters has not been tested even though sample water is said to have been taken for testing somewhere. Why samples should be taken 2 km apart from industry without taking water samples at the nearest point? Instead of inspecting the places to be inspected, they have inspected only what is required to start the factory and given a false report. Also, women are suffering from breast cancer, uterine problems and miscarriages due to SIPCOT factories. Since the SIPCOT factory was set up, thousands of spotted deer live on agricultural land. Due to the noise of factories and heavy traffic, the deer live in agricultural places. The existing factories are enough; we don't need any more companies. We have no livelihood from the SIPCOT industries. Northerners are surviving all over. Locals are hired on contract basis for one year only. After that they are fired from the job. Again they are giving a one year contract. No PF and ESI are deducted from the company. So the existing establishments are sufficient. There is no need for new establishments or SIPCOT 2 expansion either.	of water at present in and around the project site. As per TOR given by MOEF&CC, the ground water sample has been taken from 8 locations covering the buffer zone of proposed project. There are more than 1000 open/bore wells in 10km radius. It is not possible to take sample from each and every well. The proposed project does not use any hazardous or toxic material as raw materials so this project does not cause any health impacts to the village people. The workers are provided with personnel protective equipments. 33% of the total plot area is allocated for developing green belt development which helps the smooth movement of deer by arresting noise pollution. Local people will be given preference for Employment opportunities. PF and ESI deduction are noted and will be implemented according to the norms of the Government.	The cost allocated for PPE for workers – 1.3Lakhs and for green belt development in and around the project site is Rs.1,20,000. PF and ESI deduction will be deduced as per government norms.	The PPE will be made available on the first day of the commencement of the project and green belt will be developed within three years after the commencement of the project. It will be enabled at the first month salary of the employees.
6	**Mr. Tamilmani, Keezhthenkulam:** We fully welcome this cement plant project. But the problem here is employment. Therefore, I would like to inform that the District Administration should come up with a draft decision to provide employment opportunities to the local people in order to give permission to the above project, so that it will be useful for the livelihood and economic development of the local people.	The project proponent assured preferences will be given only to the local people for employment opportunities.	No budget required for this.	The project proponent assures that after the commencement of our project, the employment will be generated for the local people.

S. No	Queries Raised by Public	Replied by Project Proponent/EIA Consultant	Budget in Rupees	Time Line
7	**Mr. M. Chellathurai, 15th Ward Councillor, Gangaikondan:** Due to the opening of this cement plant, there will be more health problems. No company located in SIPCOT provides employment to people belonging to our panchayat. All jobs are given to Northen people. Local workers are employed only on daily wage basis. Most of the permanent workers are from the north states. There is no source of income for people in our region due to SIPCOT. These factories just pollute our places. So this cement factory is not needed in our area. We get water which is polluted more than the water that supplied to the SIPCOT. They are selling the water. But we don't get clean water. We don't get enough sanitation facilities too. So, on behalf of Gangaikondan, I inform that we don't want above said industry. Also, I request the officers to take actions for providing jobs to youth of our area according to their qualifications.	The proposed project will not cause any health impacts to the surrounding villages as it is standalone grinding unit. The project proponent assured preferences will be given only to the local people for employment opportunities. Mr. M. Chellathurai's statement of selling water is not relevant to this project.	The medical camp will be conducted in the surrounding village people to identify any health impacts due to this project. The cost required for medical camp will be covered under CSR cost. (2.5% of profit)	Every six months once.

15.1.13 The capital cost of the proposed project is Rs 35.11 Crores and the capital cost for environmental protection measures is proposed as Rs 11.30 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 1.93 Lakhs. The employment generation from the proposed project is Direct employment - 65 persons & Indirect employment - 100 persons. The details of cost for environmental protection measures is as follows:

S. No.	Description of Item	Proposed (Rs. In Crores/lakhs)	
		Capital Cost	Recurring Cost
(i).	Air Pollution Control/ Noise Management	9,41,500 Lakhs	1,63,000 Lakhs
(ii).	Water Pollution Control	73, 500	
(iii).	Environmental Monitoring and Management		
(iv).	Green Belt Development	1, 20, 000 Lakhs	30,000

15.1.14 Proposed greenbelt will be developed in 0.531275 ha which is about 33% of the total project area. Thus total of 0.531275 ha area (33 % of total project area) will be developed as greenbelt. A 2.5m x 2.5m 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 798 trees. Total no. of saplings will be planted and nurtured in 0.531275 hectares in Within 3 Years after the commencement of project.

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

Deliberations by the Committee

15.1.1 The Committee noted the following:

1. The project proponent submitted that the proposed cement griding unit is a category B project and appraised as Category A project due to presence of Gangaikondan spotted dear sanctuary only 3 km away from site. Final ESZ notification for Gangaikondan Spotted Deer Sanctuary was issued by MoEF&CC vide S.O. 2773 (E) dated 31/07/2019. As per the said notification, the Eco sensitive Zone shall be to an extent of zero kilometres to 0.82 kilometres around the boundary of Gangaikondan Spotted Deer Sanctuary. PP has submitted that the proposed project is outside the ESZ. In this regard, PP has further submitted Google Image showing location of Gangaikondan Spotted Deer Sanctuary and Eco-sensitivity Zone and NOC from District Forest Officer, Tirunelveli Division obtained by SIPCOT officials dated 25.03.2010 stating that "for the approval of layout proposed by the SIPCOT in Gangaikondan and Piranchery village, Tamil Nadur Forest Department has no objection from Forestry point of view."

2. It was appraised to the EAC during the meeting that the Ministry issued an OM vide No. 11/20/2018-ESZ dated 29th June, 2022 regarding the compliance of judgement dated 03.06.2022 of the Hon'ble Supreme Court in IA No. 1000 of 2003 in W.P. (C) No. 202 of 1995: T.N Godavarman vs. Union of India & Ores. Hon'ble Supreme Court, in its order dated 3rd June 2022, inter-alia, directed that each Protected Forest i.e., National park or Wild life sanctuary must have an ESZ of minimum 1 km measured from the demarcated boundary of such protected forest in which the activities prescribed. Further, mining within national parks and wildlife sanctuaries shall not be permitted and no new permanent structure shall be permitted to come up for whatsoever purpose within ESZ and power has been vested in Central Empowered Committee to decide any ESZ where the above norms cannot be made applicable. **Thus, the Committee also deliberated the proposal taking into account the Ministry's OM dated 29th June, 2022 in pursuance to judgment of Hon'ble Supreme Court dated 3rd June, 2022, EAC is of the view that the said Unit is very near to the sanctuary and in this regard the comments from ESZ Division of the Ministry may be required.**

3. The EAC further is of the view that the proposal will be appraised only after obtaining the comments from the ESZ Division of the Ministry.

4. The Project Proponent is also required to submit authenticated map of ESZ projecting distance of ESZ from project site from the Competent Authority.

Recommendations of the Committee

15.1.2 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** and advised the Ministry to furnish the comments from ESZ Division of the Ministry in the instant case. The Project Proponent shall also submit map of ESZ projecting distance of ESZ from project site authenticated from the Competent Authority. The proposal shall be considered after submission of requisite information in EAC meeting.

****

Agenda No. 15.2

15.2 Expansion of 4x100 TPD Sponge Iron Plant by addition of 15 MVA Submerged Arc Furnace for production 35,640 (max.) of Ferro Alloys and 20 MW Captive Power Plant, by M/s Atibir Industries Co. Ltd., located at Village: Manjhiladih, P.O.- Gadi Srirampur District- Giridih, State- Jharkhand– Consideration of Environmental Clearance.

[Proposal No. IA/JH/IND/241399/2003; File No. IA-J-11011/328/2018-IA-II(-I)]
[Consultant: Vardan Environet; valid upto 05.05.2023]

15.2.1 M/s Atibir Industries Co. Ltd. has made an online application vide proposal no. IA/JH/IND/241399/2003 dated 21.09.2022 along with copy of EIA/EMP report, Form – 2 and Certified compliance report seeking Environment Clearance (EC) under the provision of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous) and 1(d) Thermal power plant under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

15.2.2 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. 25, Sept 05, 2022].

Details submitted by the project proponent

15.2.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
06.10.2018	1st Meeting of EAC (Industry-1) held on 26-28th November, 2018	Terms of Reference	11.12.2018	10.12.2022

15.2.4 The project of M/s Atibir Industries Co. Ltd. located at Village: Manjhiladih, P.O- Gadi Srirampur, District –Giridih, Jharkhand is for expansion of existing steel plant for 120,000 TPA Sponge Iron production by installation of 15 MVA Submerged Arc Furnace for production of 35,640 TPA (max) Ferro Alloys along with 20 MW Captive Power Plant (using WHRB and AFBC boilers).

15.2.5 Environmental site settings

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>1</td><td>Total land</td><td>11.19 ha [Private: 11.19 ha]</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>Existing plant is established in 6.07 hectares of land. Additional land of 5.12 Ha. is required for the proposed expansion. Total Land has been acquired by 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
<u>Existence of Habitation</u>
Project Site – Nil
Study Area
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Majhiladih</td><td>0.35 km</td><td>NNW</td></tr>
<tr><td>Chatro</td><td>0.94 km</td><td>ENE</td></tr>
<tr><td>Mahuatanr</td><td>0.64 km</td><td>South</td></tr>
<tr><td>Gangapur</td><td>1.64 km</td><td>SE</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>24º 7' 16.1" N</td><td>86º 20' 59.5" E</td></tr>
<tr><td>B</td><td>24º 7' 12.4" N</td><td>86º 21' 10.1" E</td></tr>
<tr><td>C</td><td>24º 7' 08.8" N</td><td>86º 21' 07.9" E</td></tr>
<tr><td>D</td><td>24º 7' 05.1" N</td><td>86º 21' 06.6" E</td></tr>
<tr><td>E</td><td>24º 7' 04.4" N</td><td>86º 21' 01.9" E</td></tr>
<tr><td>F</td><td>24º 7' 04.7" N</td><td>86º 20' 56.8" E</td></tr>
<tr><td>G</td><td>24º 7' 09.8" N</td><td>86º 20' 58.2" E</td></tr>
</table></td><td></td></tr>
<tr><td>5</td><td>Elevation of the project site</td><td>297 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 is involved.</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>Usri River</td><td>1.6 km</td><td>East</td></tr>
<tr><td>Barakar River</td><td>6.7 km</td><td>SSE</td></tr>
</table></td><td></td></tr>
<tr><td>8</td><td>Existence of ESZ/ ESA/ serve/ elephant reserve /national park/ wildlife sanctuary/ biosphere reserve/ tiger rec. if any within the study area</td><td>Nil

List of Protected Forests in study area:
Mahuatanr Protected Forest at 1 km
Gangapur Protected Forest at ~1.6 km</td><td></td></tr>
</table>

15.2.6 The existing Sponge Iron Plant was accorded Consent to Establish vide lr. No. N-32 dated 09.08.2003 and letter no. N-453 dated 26.07.2005 for installation of 4x100 TPD DRI Kilns.

The plant was established before the publication of EIA Notification, 2006 and Environment Clearance as per EIA Notification, 1994 was not required as the total cost of the project was Rs. 35.56 crores only. The latest Consent to Operate for the existing units was accorded by Jharkhand State Pollution Control Board vide letter no. JSPCB/HO/RNC/CTO-8740045/2021/177 dated 03.02.2021. The validity of CTO is up to 31.12.2022.

15.2.7 Implementation status as per existing CTE:

S. No.	Facilities	Units	As per CTE	Implementation status	Production as per CTO
1	Sponge Iron Plant – DRI Kilns	2x100 TPD	CTE Granted dated 09.08.2003 CTO valid till 31.12.2022	Implemented and Operational till date	60,000 TPA Sponge Iron
2	Sponge Iron Plant – DRI Kilns	2x100 TPD	CTE Granted dated 26.07.2005 CTO valid till 31.12.2022	Implemented and Operational till date	60,000 TPA Sponge Iron

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

S. No.	Plant Equipment /Facility	Existing facilities as per CTE								Proposed Units		Final (Existing + Proposed)		Remarks
		Total (A+B)		Implemented (A)		Unimplemented (B)		As per CTO						
		Config	Capacity	Config	Capacity	Config	Capacity	Config	Capacity	Config	Capacity	Config	Capacity	
1	Sponge Iron Plant	4x100 TPD DRI kilns	120000 TPA Sponge Iron	4x100 TPD DRI kilns	120000 TPA Sponge Iron	--	--	4x100 TPD DRI kilns	120000 TPA Sponge Iron	--	--	4x100 TPD DRI kilns	120000 TPA Sponge Iron	--
2	Ferro-alloys Plant	--	--	--	--	--	--	--	--	15 MVA Submerged Arc Furnace	Si-Mn 24750 TPA Or Fe-Mn 35640 TPA Or Fe-Si 13860 TPA Or in combination of any	15 MVA SAF	Si-Mn 24750 TPA Or Fe-Mn 35640 TPA Or Fe-Si 13860 TPA Or in combination of any	Maximum production will be 35,640 TPA Ferro Alloys from 15 MVA SAF
3	Captive Power Plant	--	--	--	--	--	--	--	--	WHRB – 8 MW AFBC – 12 MW	20 MW	WHRB– 8 MW AFBC– 12 MW	20 MW	--

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

Raw Materials	Existing	Proposed	Total	Source	Mode of Transport	
					Rail (kms.)	Road (kms.)
Iron Ore	192,000	--	192,000	Rungta Mines Ltd, Rungta Sons (Pvt) Ltd, Barbil (Odisha)	350	7.7 (Giridih Railway Stn.)
Mn Ore	--	64,152 (max.)	64,152	Mangilal Rungta, Chaibasa MOIL, Nagpur, Barbil	350	7.7 (Giridih Railway Stn.)
Coal	156,000	67,500	223,500	Rawmet Resources Pvt.Ltd, Odisha M/s Adani Enterprises Ltd, M/s Adani Global Pte. Ltd., Odisha	400	7.7 (Giridih Railway Stn.)
Coke	--	21,834 (max.)	21,834 (max.)	Noble Resources International Pvt Ltd, Kolkata Local market, Dhanbad	350	7.7 (Giridih Railway Stn.)
Dolomite	3,600	10,692 (max.)	14,292 (max.)	M/s Paraj Vinimay Pvt Ltd, Kolkata M/s Paraj Global PTE Ltd., Kolkata M/s Subh Minerals Pvt Ltd, Raigarh	450	7.7 (Giridih Railway Stn.)
Quartz	--	14,850	14,850	Jan Kalyan Shramik Swablambi Sahkari Samiti Ltd., Local area of Jharkhand	-	200
Quartzite	--	24,948	24,948	Jan Kalyan Shramik Swablambi Sahkari Samiti Ltd., Local area of Jharkhand		
Fe-Mn Slag	--	9,990	9,990	In-house		
Mill scale	--	5,544	5,544	Atibir industries Co. Ltd. Unit II	-	5
Electrode Paste	--	890	890	Open Market, Jharkhand	-	50

15.2.10 The existing water requirement is 310 KLD and the water requirement is being met from deep bore wells (ground water). Total water requirement after expansion will be 870 m^3/day which will also be obtained from the bore well. The Application for Ground water withdrawal of total 870 KLD is applied to CGWA vide application no. 21-4/866/JH/IND/2022 dated 19.08.2022.

15.2.11 The existing power requirement of 1.35 MW is obtained from DVC. The power requirement for the proposed project is estimated as 16.65 MW (Total after expansion – 18 MW) which will be obtained from the proposed Captive Power Plant.

15.2.12 Baseline Environmental Studies

<table>
<tr><th>Period</th><th>March to May 2022</th></tr>
<tr><td>AAQ parameters at 8 Locations (min and max)</td><td>• PM_{10} - 64.5 to 84.6 μg/m^3
• $PM_{2.5}$ - 26.3 to 48.3 μg/m^3
• SO_2 - 11.2 to 25.3 μg/m^3
• NO_2 - 14.5 to 33.10 μg/m^3
• CO - 1.72 to 0.52 mg/m^3</td></tr>
<tr><td>Incremental GLC level</td><td>• PM_{10} - 0.5552 μg/m^3
• $PM_{2.5}$ - 0.28527 μg/m^3
• SO_2 - 2.36397 μg/m^3
• NO_2 - 3.13146 μg/m^3
• All Maximum GLC Values are observed at Project site</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>• pH - 7.83 to 8.10
• Total Hardness - 166 to 226 mg/l.
• Chlorides - 92.2 to 141.3 mg/l
• Fluoride - 0.28 to 0.54 mg/l
• Zinc - 0.93 to 1.23 mg/l</td></tr>
<tr><td>Surface water quality at 8 locations</td><td>• pH - 7.59 to 7.88
• DO - 5.4 to 7.2 mg/l
• BOD - 6.76 to 21.0 mg/l
• COD - 22 to 73 mg/l</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>Leq Day Time - 42.28 to 68.76 Leq dB(A)
Leq Night Time - 33.11 to 59.31 Leq dB(A)</td></tr>
<tr><td>Traffic assessment study findings</td><td>• The traffic study has been conducted at SH 13 which is 0.5 km from the plant site
• Transportation of raw material, fuel and finished products will be done 10% by road and 90% by Rail.
• Existing PCU is 3902 PCU/day on SH-13 for March to May 2022 and Existing 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>SH-13</td><td>3902</td><td>15000</td><td>0.26</td><td>B</td></tr>
</table>
• PCU load after proposed project will be 3902 + 654 PCU/day and level of service (LOS) will be;
<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>SH-13</td><td>4556</td><td>15000</td><td>0.30</td><td>B</td></tr>
</table>
*Capacity as per IRC-64:1990 Guide line for capacity for roads
Conclusion: The level of service will remain same after including</td></tr>
</table>

Period	March to May 2022
	additional traffic due to proposed project.
Flora and fauna	There is no Schedule-1 Species of Flora and Fauna in the study area

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

Sl. No.	Type of Waste	Source	Quantity Generated (TPA)	Mode of Treatment	Disposal	Remarks
1	Dolochar	DRI kiln	30,000	--	Will be used in AFBC Boiler for power generation.	Presently being sold to SIPL
2	ESP Dust	ESP	20,500	--	Will be used in Sinter Plant of Atibir Unit-2	--
3	Wet Scrapper Sludge & Accretion slag	DRI Kiln	5,850	--	Non-hazardous and will be used for filling of low-lying area	--
4	Fly ash	Captive Power Plant	40,800	--	Will be given to the Cement Plant and Brick Mfg. Units	--
5	Bottom Ash	Captive Power Plant	10,200	--	Will be given to the nearby Brick kilns, to be used as fuel in their Kilns	--
6	Fe-Mn Slag	Submerged Arc Furnace	35,640	Metal recovery in Jigging Plant	Will be used In-house as raw material for Si-Mn production	--
7	Fe-Mn BF Dust	Bag Filter	820	--	Will be given to the Sinter Plant of Atibir Unit-2	--
8	Si-Mn Slag	Submerged Arc Furnace	21,040	Metal recovery in Jigging Plant	Shall be used for construction or filling of low-lying area	--
9	Si-Mn BF Dust	Bag Filter	470	--	Will be given to the Sinter Plant of Atibir Unit-2	--
10	Fe-Si Slag	Submerged Arc Furnace	690	Metal recovery in Jigging Plant	Ferro Silicon Slag will be used in Cement industries as raw material and will be used for	--

Sl. No.	Type of Waste	Source	Quantity Generated (TPA)	Mode of Treatment	Disposal	Remarks
					medium carbon silico manganese production	
Management of Hazardous Waste: No hazardous waste shall be generated from the process except the 'Used Oil' (40 KL) which will be sold to the register recycler.						

15.2.14 Public Consultation:

Details of advertisement given	Advertisement in English Newspaper "Hindustan Times" and Regional Newspaper "Prabhat Khabar" on 25.09.2019
Date of public consultation	31.10.2019
Venue	Plant Premises of Atibir Industries Pvt Ltd. located at Village – Manjhiladih, P.O.- Gadi Srirampur District- Giridih, State- Jharkhand
Presiding Officer	Additional Collector, Giridih
Major issues raised	• Employment • Measures to be undertaken for control of Pollution from expansion • Pucca road from village to the plant site. • Supply of water to locals during summer.

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

Sl. No.	Physical Activity and action plan		Year of Implementation (Budget in INR)			Total expenditure (Rs. In crores)
	Name of Activity	Physical Targets	1st	2nd	3rd	
1	Construction of 2 smart Classes	Construction of two smart classes (10x12 ft each) with veranda (5x20 ft) near Pariyana village	--	971000	--	971000
		Providing Smart class accessories (Desktop, Projector, AC, Table, chairs, Laptop, CCTV, Online UPS etc)	--	--	529000	529000
2	Construction of 1.5 km long road	Construction of Pucca Road (PCC) of 1.5 km	3195275	--	--	3195275

Sl. No.	Physical Activity and action plan		Year of Implementation (Budget in INR)			Total expenditure (Rs. In crores)
	Name of Activity	Physical Targets	1st	2nd	3rd	
		long and 3.0 m width from GadiSrirampur to Plant premises for local commute				
3	Installation of Hand Pump and Drinking water purifier	Installation of Handpump with Water purification unit (50 litres) at village Manjhiladih	--	164220	--	164220
Grand Total (Rs.)						**48,59,495**

15.2.15 Existing capital cost of project was Rs. 35.56 Crores. The capital cost of the proposed project is Rs 105 Crores and the capital cost for environmental protection measures is proposed as Rs 9.12 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 1.0524 Crores/year. The employment generation from the proposed expansion is 150. The details of cost for environmental protection measures is as follows:

Sl. No.	Description of Item	Proposed EMP Budget Rs. In Lakhs	
		Capital Cost	Recurring Cost
(i)	Air Pollution Control / Noise Management	650.0	65.0
(ii)	Water Pollution Control	68.0	12.0
(iii)	Solid Waste Management	18.0	1.5
(iv)	Environment Monitoring & Management	127.5	12.34
(v)	Greenbelt Development	33.5	3.4
(vi)	Occupational, Health & Safety	15.0	11.0
	Total EMP Budget	**912.0**	**105.24**
(vii)	Addressal of Public Consultation Concerns	48.6	--
	EMP Budget including budget to address Public Consultation Concerns	**960.0**	**105.24**

15.2.16 Existing green belt has been developed in 2.4 ha area which is about 21 % of the total project area of 11.19 ha with total sapling of 2,528 Trees. Proposed greenbelt will be developed in 1.29 ha which is about 12% of the total project area. Thus, total of 3.69 ha area (33 % of total project area) will be developed as greenbelt. A 15 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a

density of 2500 trees per hectare. Total no. of 6700 saplings will be planted and nurtured in 3.69 hectares in 3 years.

15.2.17 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

15.2.18 Since, EC was not applicable for the existing plant units, therefore the project proponent has obtained Certified CTO compliance from Jharkhand Pollution Control Board, vide letter Ref No. 828 dated 30.08.2022, which reports that CTO Conditions have been complied with.

Deliberations by the Committee

15.2.19 The Committee noted the following:

1. The water requirement after the expansion is estimated as 870 m^3/day, which will be obtained from the bore well. The application for Ground water withdrawal of total 870 KLD is applied to CGWA vide application no. 21-4/866/JH/IND/2022 dated 19.08.2022. The Committee also noted that for the existing project the project proponent do not have a valid permission for obtaining ground water. The Project proponent/Consultant mentioned that they have applied for regularisation of the same as per Notification vide S.O. 3289(E) dated 24.09.2020. The Project Proponent also submitted documents pertaining to correspondence with the Competent Authority for surface water extraction but have not been able to get the permission. The EAC have taken serious note of this affair and advised the project proponent/consultant to explore/pursue the matter related to surface water extraction / ground water extraction. PP shall also explore the possibility to use treated sewage water for industrial purpose. Only after a tangible outcome, the EAC will take up the matter.
2. The EAC noted that existing green belt has been developed in 2.4 ha area which is about 21% of the total project area of 11.19 ha with total sapling of 2,528 Trees. PP has proposed greenbelt in total of 3.69 ha area (33% of total project area) with 6700 saplings in 3 years. The Committee deliberated on the action plan and is of the view that the existing greenbelt is very less and not as per guideline for planting 2500 plants per ha. The EAC advised that the project proponent shall submit action plan along with commitment for completing greenbelt in 33% of total project area @ 2500 plants per ha density in a timeframe of 1 year i.e. by 2023.
3. Chloride values in ground water are observed to be on a higher side. PP shall submit the justification along with mitigation measures to minimize the same.
4. Baseline values for Air Quality parameters specifically PM are recorded high. Project proponent shall submit a mitigation plan to minimise the emission and impact on the ambient air quality.
5. PP shall submit the Work Zone Monitoring plan for occupational Health including exposure of manpower to Silica.

6. PP shall submit the details of court case, directions issued by SPCB, if any.

7. 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 is of the opinion that action plan shall be revised so that the targets in the subsequent years shall be undertaken in the first year itself.

8. The EAC observed that though it is an existing project for a long time, still water is made available to the locals through water tankers. The EAC is of the view that proper water supply system shall be developed for appropriate supply to the locals.

9. The nearest habitation to plant are Majhiladih (0.35 Km, NNW), Chatro (0.94 Km, ENE), Mahuatanr (0.64 Km, S) and Gangapur (1.65 Km, SE) from the project site boundary. Project Proponent shall submit appropriate environmental safeguard measures to minimise the impact on the habitation of the locals.

10. Usri River (1.6 Km, E) and Barakar River (6.7 Km, SSE) are flowing within 10 Km. radius of the plant 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 submitted.

11. During operational Phase-Industry propose to use 14,850 and 24948 TPA of Quartz and Quartzite. Therefore, PP need to evaluate PM2.5 dust through personal and area monitoring using personal and area air samplers; quantify PM2.5 dust and quartz content (silica) and to compare with Permissible Limits as per Indian Factories Act at all locations. If concentration found higher suitable engineering controls to be employed to reduce the quartz-airborne exposures to employees.

12. **The EAC warned the Consultant M/s. Vardan Environet for not guiding the project proponent properly with respect to submission of all the requisite documents at the time of appraisal of EC proposal.**

Recommendations of the Committee

15.2.20 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** and sought requisite information on the points referred at para no. 15.2.19 above. The proposal shall be considered after submission of requisite information in next EAC meeting.

***

Agenda No. 15.3

15.3 Proposed expansion of existing Steel Plant by installation of 1x400 TPD Sponge Iron Plant (1,32,000 TPA), Steel Melting Shop for total production of 2,60,500 TPA Billets, 1,92,000 TPA Rolling Mill with 1x15 TPH Reheating Furnace and Captive Power Plant [20 MW (10 MW WHRB + 10 MW AFBC)] within the existing plant premises by M/s. AIC Iron Industries Private Limited located at Village Benipur, Tehsil Neturia, District Purulia, West Bengal – Consideration of Environment Clearance.

[Proposal No. IA/WB/IND/261199/2008; File No. J-11011/566/2008-IA-II(IND-I)]
[Consultant: Envirotech East Pvt. Ltd.; valid upto 25.12.2022]

15.3.1 M/s. AIC Iron Industries Private Limited has made an online application vide proposal IA/WB/IND/5663/2010 dated 27/09/2022 along with copy of EIA/EMP Report, Form - 2 and Certified Compliance Report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

15.3.2 Name of the EIA consultant: M/s. Envirotech East Pvt. Ltd. [NABET Extension Letter vide QCI/NABET/ENV/ACO/22/2532 dated 26.09.2022; valid upto 25.12.2022].

Details submitted by Project proponent

15.3.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	Validity of ToR
04/01/2020	15th meeting of EAC, held on 16th January, 2020	Terms of Reference	24/01/2020	23/01/2024

15.3.4 The project of M/s. AIC Iron Industries Private Limited located in Village Benipur, Tehsil Neturia, District Purulia, West Bengal State is for expansion of existing Steel Plant by installation of 1x400 TPD Sponge Iron Plant (1,32,000 TPA), Steel Melting Shop for total production of 2,60,500 TPA Billets, 1,92,000 TPA Rolling Mill with 1x15 TPH Reheating Furnace and Captive Power Plant [20 MW (10 MW WHRB + 10 MW AFBC)] within the existing plant premises.

15.3.5 Environmental Site Settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>10.01 ha
[Private: 10.01 ha]</td><td>Land use: Industrial</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Expansion project is proposed in existing project area of 10.01 ha. Complete land of 10.01 ha is under possession of company. No additional land is required for proposed project.</td><td></td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any</td><td>Project Site: NIL

Study Area:
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Boropukur village</td><td>0.6 km</td><td>ESE</td></tr>
<tr><td>Benipur</td><td>0.1 km</td><td>NNE</td></tr>
</table></td><td>No R&R is required.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site</td><td><table><tr><th>Point</th><th>Latitude</th><th>longitude</th></tr><tr><td>1</td><td>23°39'31.61"N</td><td>86°47'41.98"E</td></tr><tr><td>2</td><td>23°39'29.44"N</td><td>86°47'54.64"E</td></tr><tr><td>3</td><td>23°39'22.51"N</td><td>86°47'50.25"E</td></tr><tr><td>4</td><td>23°39'24.49"N</td><td>86°47'40.13"E</td></tr></table></td><td></td></tr>
<tr><td>V.</td><td>Elevation of the project site</td><td>140 m AMSL</td><td></td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>Not involved.</td><td></td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area.</td><td><u>Project Site:</u> NIL

<u>Study area:</u><table><tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr><tr><td>Damodar River</td><td>2.8 km</td><td>NW</td></tr><tr><td>Panchet Reservoir</td><td>3.84 km</td><td>West</td></tr><tr><td>Baranti Reservoir</td><td>8.66 km</td><td>SSE</td></tr></table></td><td></td></tr>
<tr><td>viii.</td><td>Existence of ESZ / ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area</td><td>NIL
However, following forest is located within study area:
Panchet RF: 3.20 km/ SSW</td><td></td></tr>
</table>

15.3.6 The existing project was accorded Consent to Establish (NOC) from West Bengal Pollution Control Board vide Consent Letter Memo. No 1334/I-WPBA-NOC (816)/05 dated 15/12/2006 and Consent Letter Memo. No 478/WPBA-NOC (816)/05 dated 03.05.2010 for 1x3 T and 1x6 T Induction Furnaces. Environmental Clearance is accorded ministry letter no F. No. J-11011/ 566/2008-IA II(I) dated 27/08/2010 for 4x100 TPD DRI Kiln, 2x15 T Induction Furnaces and CPP of 12 MW CPP (8 MW WHRB + 4 MW AFBC). Latest Consent to Operates (CTO) for the existing unit was accorded by West Bengal Pollution Control Board vide Consent Letter Memo. No 1040-WPBA/Red(Prl)/Cont(216)/07 dated 10/05/2018 and Letter Memo. No 279-WPBA/Red(Prl)/Cont(216)/07 dated 17/11/2021. The validity of CTO is up to 31/03/2023.

15.3.7 Implementation status of the existing EC and NOC:

S. No.	Facilities	Units	As per NOC dated 15/12/2006	As per EC dated 27/08/2010	Implementation Status as on 04/02/2022	Production as per CTO dated 10/05/2018 and 17/11/2021
1.	Sponge Iron	TPA	--	4x100 TPD DRI Kilns (1,20,000 TPA)	Not implemented	--

S. No.	Facilities	Units	As per NOC dated 15/12/2006	As per EC dated 27/08/2010	Implementation Status as on 04/02/2022	Production as per CTO dated 10/05/2018 and 17/11/2021
2.	SMS (Billets)	TPA	IF: 1x3T + 1x6T (28,800 TPA Billets)	IF: 2x15 T (1,20,000 TPA)	IF: 1x3T + 1x6T (28,800 TPA) + IF: 1x15 T (49,500 TPA)	IF: 1x3T + 1x6T (28,800 TPA) + IF: 1x15 T (49,500 TPA)
3.	Captive Power Plant	TPA	--	12 MW CPP (8 MW WHRB + 4 MW AFBC)	Not implemented	--

15.3.8 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 27/08/2010 and CTE dated 15/12/2006 from WBPCB								Proposed Units		Final (Existing + Proposed)	
		Total (A+B)		Implemented (A)		Un-implemented (B)		As per CTO					
		Config-uration	Capacity (TPA)	Config-uration	Capacity (TPA)	Config uration	Capacity (TPA)	Config-uration	Capacit (TPA)	Config uration	Capacity (TPA)	Config-uration	Capacity (TPA)
1.	Sponge Iron	4x100 TPD DRI Kilns	1,20,000	--	--	4x100 TPD DRI Kilns	1,20,000	--	--	1x400 TPD DRI Kiln	1,32,000	1x400 TPD DRI Kiln	1,32,000
2.	Induction Furnace with CCM/ LRF AOD/VOD	IF: 1x3 T + 1x6 T + 2x15 T	28,800 + 1,20,000	IF: 1x3 T + 1x6 T + 1x15 T	28,800 + 49,500	IF: 1x15 T	70,500	IF: 1x3 T + 1x6 T + 1x15 T	28,800 + 49500	IF: 3x15 T (existing 1x3 T + 1x6 T will be replaced with 2x10 T)	1,48,500 liquid steel/ 1,46,000 Billets	IF: 2x10 T + 4x15 T	2,60,500 Billets
3.	Rolling Mill Structural Steels (Angles, Channels, Joist, TMT Bars, Wire Rod, Strips & Pipes etc.) with 1x15 TPH Reheating Furnace.	--	--	--	--	--	--	--	--	--	1,92,000	--	1,92,000 .
4.	Captive Power Plant	--	12 MW CPP (8 MW WHRB + 4 MW AFBC)			--	12 MW CPP (8 MW WHRB + 4 MW AFBC)	--	--	--	20 MW CPP (10 MW WHRB + 10 MW AFBC)	--	20 MW CPP (10 MW WHRB + 10 MW AFBC)

15.3.9 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	Annual Requirement (in TPA)			Source	Distance (in km)	Transportation		
		Existing	Proposed	Total			Internal	Rail	Road
SPONGE IRON PLANT									
1	Iron Ore Fines / Pellet	-	1,80,000	1,80,000	I/O fines from Barbil-Joda, Orissa Pellet from Local Market	300 100	-	1,80,000	-
2	Coal	-	1,20,000	1,20,000	Imported-Haldia Port	315	-	1,20,000	-
3	Dolomite	-	3,600	3,600	Raipur CG Katni MP	800 830	-	-	3,600
STEEL MELTING SHOP									
1	Sponge Iron	1,05,000	1,35,000	2,40,000	In-house Conveyor Local Market	- 200	1,32,000	86400	21,600
2	Scraps	24,500	31,500	56,000	Local Market	100	-	-	56,000
3	Pig Iron	17,500	22,500	40,000	Local Market	150	-	-	40,000
4	Ferro Alloys	904	1,160	2,064	Local Market	150	-	-	2,064
CAPTIVE POWER PLANT									
1	Coal	-	62,500	62,500	Imported-Haldia Port	315	-	62,500	-
2	Dolochar	-	30,000	30,000	In-House	-	30,000	-	-
TOTAL		**1,47,904**	**5,86,260**	**7,34,164**			**1,62,000**	**4,48,900**	**1,23,264**
Percentage (%)							**22%**	**61%**	**17%**
No. of Rakes / Trucks per Year								**113** **(10 Rakes per Month)**	**6164** **(19 Trucks per Day i.e. 1 Truck/ Hour)**

15.3.10 Total make up water as tune of 472 m^3/day will be needed for existing as well as proposed industrial purpose and around 25.5 m^3/day will be needed for domestic use. Thus, total 497.5 m^3/day make up water (Fresh Water 397.5 m^3/day and recycled water 100 m^3/day) will be required for the entire project. The raw water will be sourced from Damodar River through DVRRC supply (after expansion). No ground water shall be abstracted. The permission for supply of 0.212 MGD from Damodar Valley Reservoir Regulation Unit vide Letter No. MD/DVRR/W-6(144)/2020/1451-56 dated 07/01/2021.

15.3.11 As per the estimation the total power requirement for the entire project will be around 37.5 MW including the power requirement for the proposed units and the power requirement for the replacement of the existing (1x3 T + 1x6 T) by 2x10 T Induction Furnaces. Power will be sourced from the proposed 20 MW capacity Captive Power Plant (CPP) and the rest will be sourced from the DVC.

15.3.12 Baseline Environmental Studies:

Period	**December, 2019 - February, 2020**
AAQ parameters at 8 locations	• $PM_{2.5}$ = 16 - 39 µg/m^3 • PM_{10} = 50 - 86 µg/m^3

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

SO_2 = 4 - 16 µg/m^3
NO_2 = 14 - 38 µg/m^3
CO = 0.177 - 1.159 mg/m^3

</td></tr>
<tr><td>AAQ Modelling (Incremental GLCs)
Model Used : ISCST3</td><td>

PM = 1.659 µg/m^3 (0.7 km in SE)
SO_2 = 5.692 µg/m^3 (0.7 km in SSE)
NOx = 3.583 µg/m^3 (0.7 km in SSE)

</td></tr>
<tr><td>Ground water quality at 9 locations</td><td>

pH: 6.7 - 7.6,
Total Hardness: 188 - 304 mg/l,
Chlorides: 93 - 135 mg/l,
Fluoride: 0.24 - 0.62 mg/l,
Iron: 0.18 - 0.46 mg/l,
TDS: 328 - 473 mg/l

</td></tr>
<tr><td>Surface Water Quality at 10 Locations

(1 Reservoir water sample, 2 River water & 7 pond water samples)</td><td>Damodar River Water:
pH: 7.5 & 7.4,
DO: 6.6 & 6.8 mg/l,
BOD: 3 mg/l,
COD: 12 & 10 mg/l,
Fe: 0.17 & 0.23 mg/l,
Coliform: 4400 & 5600 MPN/100 ml,
TDS: 186 & 199 mg/l,
Total Hardness: 124 & 144 mg/l,
Chloride: 36 & 35 mg/l

Pond Water:
pH: 6.8 - 7.3, DO: 6.1 - 6.6 mg/l,
BOD: 4 - 8 mg/l,
COD: 12 - 28 mg/l,
Fe: 0.16 - 0.22 mg/l,
Coliform: 990 - 2440 MPN/100ml,
TDS: 252 - 358 mg/l,
Total Hardness: 144 - 232 mg/l,
Chloride: 52 - 96 mg/l</td></tr>
<tr><td>Noise Levels at 10 Locations</td><td>54.4 - 67.2 dBA for day time and
44.9 - 53.0 dBA for night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>The traffic study was carried out at Sarbari-Panchet Road near Project Site and SH 5 near sarbari mor.
Transportation of raw material, fuel & finished product will be done 100 % by road.
Existing PCU is 35.66 PCU/hr on Sarbari-Panchet Road and 126.83 PCU/hr on SH 5 and existing level of service (LOS) is:
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>Sarbari-Panchet Road</td><td>35.66</td><td>625</td><td>0.57</td><td>A</td></tr>
<tr><td>SH 5</td><td>126.83</td><td>625</td><td>0.20</td><td>A</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td>PCU load after proposed project will be 81.62 PCU/hr on Sarbari-Panchet Road and 172.75 PCU/hr on SH 5 and proposed level of service (LOS) is:
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Proposed V/C Ratio</th><th>LOS</th></tr>
<tr><td>Sarbari-Panchet Road</td><td>81.62</td><td>625</td><td>0.13</td><td>A</td></tr>
<tr><td>SH 5</td><td>172.75</td><td>625</td><td>0.28</td><td>B</td></tr>
</table>
* Note: Capacity as per IRC-106: 1990, Guide line for capacity for roads.
Conclusion: The level of service will be remained same as A at Sarbari-Panchet Road near prpoject site but level of service will be change from A to B at SH 5 after including additional traffic due to proposed project.</td></tr>
<tr><td>Flora and fauna</td><td>No schedule I species of fauna and no endangered species of flora found in study area.</td></tr>
</table>

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

S No	Type	Quantity (TPA)			Utilization
		Existing	Proposed	Total	
1	Dolochar from Sponge Iron Plant	-	30,000	30,000	100% to be used in AFBC boiler of CPP.
2	Slag from Induction Furnaces	10,500	13,500	24,000	The slag generated from the furnaces shall be 24,000 TPA considering 100% production in the furnaces. About 10% metal shall be recovered from the total slag and the balance 21,600 TPA utilized as stone chips / road construction materials) shall be used for road construction & repairing / land filling purposes. Considering 7 m width & depth 12 inch (0.3 m) of the road and density of the slag as 3.5 ton/cum, 7,350 T slag may be consumed for 1.0 km stretch. Therefore, the entire quantity of slag generated in a year (21,600 TPA) shall be utilized for the construction of around 3 km roads. As per an estimate, it was found that around 400 km undeveloped (Kuchha) road is existing in the

S No	Type	Quantity (TPA)			Utilization
		Existing	Proposed	Total	
					surrounding villages in the 10 km radius area. Hence, there is lot of potential of slag utilisation during construction of these roads.
3	End Cuts, Scale & Scrap from CCM & Rolling Mill	3,500	3,500	7,000	100% to be used in Induction Furnaces.
4	Fly Ash from CPP	-	15,700	15,700	100% to be sold as a raw material in cement plant / brick manufacturers in the neighborhood.
5	Bottom Ash from CPP	-	3,930	3,930	100% to be utilised for brick making / land filling purposes.

15.3.14 Public Consultation:

Details of advertisement given	14/01/2021
Date of Public Consultation	15/02/2021
Venue	Sampriti Sadan, Sarbari, P.S. Neturia, District - Purulia, West Bengal
Presiding Officer	Additional District Magistrate, Purulia
Major issues raised	• Generation of employment opportunities • Measures for Environmental Protection • Regarding local people's health • Proper supply of drinking water • Water pollution and waste water discharge • Control of Air Pollution • Maintenance of local roads • Organize health camps for local people health check up • Proper implementation of the CSR fund in consultation with local committee • Greenbelt development • Maintenance of local schools • Scholarship for local students

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

Budgetary action plan to address the public hearing issues:

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1st Year	2nd Year	3rd Year	
Employment of local people	In the proposed project, top most priority will be given to the local people based on their academic qualification.	Physical Target	Construction of 2 - room training building (1300 sq. ft area) and installation of 5 computer systems & 3 machines for making hand craft items along with necessary raw materials, based on the need of the local people			20
		Budget in Lakhs	15	5	-	

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1st Year	2nd Year	3rd Year	
	Skill development for unemployed local youths through National Skill Development Corporation, Govt. of India Scheme. Construction of a building along with the necessary infrastructure for this purpose.					
Measures for Environmental Protection	• Adequate control measures like installation of ESP, Bag filters, dust suppression system & 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 regularly. • All roads shall be paved on which movement of raw materials or products will take place inside the plant premises. • No waste water will be discharged outside the plant area. The plant is designed as a zero discharge plant. The entire wastewater will be recirculated and recycled. • The equipment shall comply with the Statutory limit of 85 dB(A) (at 1 m. from the source). Noise Reduction Systems	Physical Target	The physical Target for the entire activities shall be achieved in 3 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	3rd Year	
	will be arranged.					
Groundwater shall not be withdrawn	Total Make up water for the entire Project shall be 397.5 m^3/day which will be sourced from Damodar River.	Physical Target	-	-	-	
		Budget in Lakhs	-	-	-	
To take care of local people's health	A charitable dispensary shall be constructed having basic facilities, trained nurses and qualified doctors for treatment of the local people.	Physical Target	Construction of a charitable dispensary (1500 sq. ft area) at village Sarbari			40
		Budget in Lakhs	25	15	-	
Organizing Health Camps for health check-up of locals	Health camps shall be organized in the surrounding villages for health check-up of the local villagers.	Physical Target	It will be done on regular basis.			
		Budget in Lakhs	As per requirement.			
Proper Supply of Drinking Water	Drinking water shall be supplied through tanker and tubewells shall be installed for drawing drinking water.	Physical Target	Procurement of 1 tanker	Development of 2 tube wells at Ramkanali & Shunuri villages	Development of 2 tube wells at Bhurkunrabari and Digha villages	10
		Budget in Lakhs	6	2	2	
Regarding Water Scarcity	The water required for the proposed project will be taken from the Damodar River and therefore there will be no need for ground water, so there will be no question of depletion of ground water. Construction of Rain Water Harvesting structures for groundwater recharging and rain water surface storage tanks in nearby villages shall be done.	Physical Target	Construction of 2 Rain Water Harvesting structures at Sarbari & Digha villages	Construction of 1 Rain Water storage pond at Shunuri village	Construction of 1 Rain Water storage pond at Ramkanali	7
		Budget in Lakhs	5	1	1	
Regarding Measures to prevent	The plant is designed as a zero-discharge plant. The	Physical Target	The physical Target for the entire activities shall be achieved in 3 years.			

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1st Year	2nd Year	3rd Year	
Water Pollution	water will be recirculated through cooling and treatment. The entire waste water will be recycled for various purposes inside the plant. Domestic wastewater will be treated in Sewage Treatment Plant (STP).	Budget in Lakhs	Included in the EMP Cost.			
Maintenance & repairing of roads in the surrounding areas	Maintenance & repairing of 3 km roads in the surrounding villages.	Physical Target	Construction of 1 km and repairing of existing roads at Sarbari village	Construction of 1 km and repairing of existing roads at Shunri village	Construction of 1 km and repairing of existing roads at Madhukunda village	30
		Budget in Lakhs	10	10	10	
Proper implementation of the CSR fund in consultation with local committee	The company has identified certain areas, to be considered for imparting the CER activities in the context of the local scenario of the area. The CER activities will be implemented in consultation and co-ordination with the local authorities.	Physical Target	The physical Target for the entire activities shall be achieved in 3 years.			-
		Budget in Lakhs	As per requirement.			
Greenbelt development within the plant premises	Proper plantation of trees will be done inside the plant premises. The Company has earmarked 3.30 hectares (8.16 acres) of land for Green Belt Development out of total 10.01 hectares (24.74 acres) of total land within its plant area at Village: Benipur, P.O.: Saltor, P.S.: Neturia, Dist: Purulia in West Bengal.	Physical Target	The physical Target for the entire activities shall be achieved in 3 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	3rd Year	
	3.30 hectares (8.16 acres) of land for greenery are already developed as greenbelt within the plant premises where around 5000 number of trees (@1500 trees per hectares) have been planted. There is plan to develop further greenbelt by planting more trees @2500 trees per hectares. There will be total 8250 number of trees within the plant area. Hence, additional 3250 number of trees shall plant.					
Maintenance of local schools	Development of building infrastructure, playground, class rooms, library facilities and providing computers in the Local Adibashi School.	Physical Target	Renovation & repairing of school building at Sarbari village	Supplying desks, benches, blackboards at Digha village	Development of playground and library at Shunuri village	8
		Budget in Lakhs	3	2	3	
Regarding scholarship for local students	Scholarships shall be provided to the local meritorious students for carrying out higher studies.	Physical Target	It will be done on regular basis.			-
		Budget in Lakhs	As per requirement.			
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	3rd Year	
Street Lighting (Solar) provision at suitable public places in and around the nearby villages (15 numbers, @ Rs. 20,000/- per Solar Light)	Physical Target:	Providing 5 nos. Solar light at village Sarbari	Providing 5 nos. Solar light at village Digha	Providing 5 nos. Solar light at village Ramkanali	3
	Budget in Lakhs	1	1	1	

Need based Activities	Particulars	Year of Implementation			Total Expenditure (Rs. In Lakhs)
		1st Year	2nd Year	3rd Year	
Development and maintenance of existing ponds in the local villages	Physical Target:	Development & maintenance of 2 ponds at villages Gar Panchkot & Ranipur	Development & maintenance of 2 ponds at villages Digha & Shunuri	Development & maintenance of 2 ponds at villages Haridi & Ramkanali	15
	Budget in Lakhs	5	5	5	
Providing green and blue Dustbins in the surrounding villages (under Swach Bharat Scheme) for waste segregation and handling	Physical Target:	Providing 200 green dustbins and 200 blue dustbins at five villages namely Lachhmanpur, Gagra, Ramkanali, Ranipur, Ajodhya	Providing 200 green dustbins and 200 blue dustbins at five villages namely Malancha, Mahishnadi, Bhurkunrabari, Bathanbari, Haridi	Providing 100 green dustbins and 100 blue dustbins at five villages namely Gar Panchkot, Digha, Kelyasota, Sarbari, Shunuri, Madhukunda	
	Budget in Lakhs	0.4	0.4	0.2	1.0
Total Budget - Need based activities: Rs. 19 Lakhs					
Overall Budget (Public Hearing related + Need based Activities): Rs. 134 Lakhs					

It has been decided to develop one nearby village namely Benipur by adopting the same by addressing the socio-economic needs of the villagers. The budget for this purpose is Rs. 70.2 Lakhs, which will be spent under the following heads:

Targets	Amount in Rs. Lakhs
To take care of local people's health	40
Development of 2 tube wells	2
Construction of 2 Rain Water Harvesting structures	5
Construction of 1 km new road and repairing of existing roads	10
Renovation & repairing of school building	3
Development of playground and library	3
Providing 10 nos. Solar light	2
Development & maintenance of 2 ponds	5
Providing Dustbins	0.2
TOTAL	**70.2**

15.3.15 The capital cost of the proposed expansion project is Rs. 145 Crores and the capital cost for environmental protection measures is proposed as Rs. 22.0 Crores (around 15% of the project cost). The annual recurring cost towards the environmental protection measures is proposed as Rs. 2.4 Crores. The employment generation from the proposed project is 400 persons. The details of cost for environmental protection measures are as follows:

S. No.	Environment/ Social Control Measure	Cost of Emp (In Crores)					
		Existing		Proposed		Total	
		Capital	Recurring / Annum	Capital	Recurring / Annum	Capital	Recurring / Annum
1	Air Pollution Control Systems	2.0	0.20	9.0	1.00	11	1.2
2	Water conservation & Pollution Cont rol	1.2	0.12	2.9	0.30	4.1	0.42
3	Solid / Hazardous Waste Management System	1.0	0.10	2.1	0.23	3.1	0.33
4	Green belt development	0.1	0.01	0.4	0.02	0.5	0.03
5	Noise Reduction Systems	1.0	0.10	1.6	0.16	2.6	0.26
6	Occupational Health Management	1.6	0.16	1.0	0.10	2.6	0.26
7	Risk Mitigation & Safety Plan	1.3	0.13	1.45	0.15	2.75	0.28
8	Environmental Management Department	1.1	0.11	2.4	0.44	3.5	0.55
9	Total Budget - Public Hearing related	0.5	-	1.15	-	1.65	-
	Total	**9.8**	**0.93**	**22.0**	**2.40**	**31.8**	**3.33**

15.3.16 M/s AIC Iron Industries Private Limited has already developed 3.30 ha (8.16 acres) of land as greenbelt within the plant premises where around 6000 number of trees (@1500 trees per hectares) have been planted. There is plan to develop further greenbelt by planting more trees @2500 trees per hectares. There will be total 8250 number of trees within the plant area. Hence, additional 2250 number of trees shall be planted.

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

Certified compliance report from Pollution Control Board:

15.3.18 The Status of compliance of earlier EC was obtained from Integrated Regional Office, Kolkata vide letter no. 102-685/22/EPE/352, dated 18.08.2022 in the name of M/s. AIC Iron Industries Pvt. Ltd. The Action taken report regarding the partially/non-complied condition was submitted to Integrated Regional officer MoEF&CC, Kolkata vide letter no. Nil dated 29.08.2022, MoEF&CC (RO), Kolkata evaluated the same and has issued letter dated 15.09.2022. The details of the observations made by RO in the report dated 15.09.2022 along with its re-assessment / present status as furnished by the PP is given as below.

S. No.	Non-compliances details	Observation of RO	Condition No.			Re-assessment by RO / Response by PP
			EC Date	Specific	General	
1	On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP),	It is observed that online ambient air quality monitoring station has not been established. PAs have informed they	27.08.2010	(i)	-	PAs have informed that they have placed the order to the supplier for online ambient air quality monitoring facility and will be installed by November 2022.

S. No.	Non-compliances details	Observation of RO	Condition No.			Re-assessment by RO / Response by PP
			EC Date	Specific	General	
	cyclones, bag filters etc. shall be provided to limit the emission levels below 50 mg/Nm^3 by installing energy efficient technology.	have placed the order to the supplier for the same and have submitted copy of the purchase order. The same needs to be installed immediately.				
2	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.	It is observed that parameters such as O3, Pb, CO, NH3 C6H6 BAP, As, Ni as mentioned in G.S.R. N. 826(E) dated 16th November, 2009 for all the locations and submit the report to the Integrated Regional Office.	27.08.2010	(ii)	-	PAs have monitored O3, Pb, Co, NH3,C6H6,BAP, As, Ni at Sultandi, Narayanpur Paschim, Parbelia village, Nutandi village. As per the monitoring data submitted, it is observed that the parameters are within the stipulated standards.
3	The water consumption shall not exceed as per the standard prescribed for the steel plants. Permission from the State Irrigation Department / Central Ground Water Board for drawl of water shall be obtained as may be applicable in this case.	PAs need to conduct ground water analysis from location within the project site and submit the report to the Integrated Regional Office. Further, they are also required to submit the analysis report of the waste water.	27.08.2010	(vi)	-	As per the document submitted by PAs, it is observed that PAs have conducted analysis of borewell water inside the factory and waste water. It is observed that the monitoring data is within the stipulated standards.
4	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants should be implemented.	From the compliance report submitted by CREP by PAs and observations made during monitoring, it is observed that online ambient air quality monitoring system has not been installed. The same needs to be installed at the project site	27.08.2010	(xi)	-	PAs have informed that they have placed the order to the supplier for online ambient air quality monitoring facility and will be installed by November 2022.

S. No.	Non-compliances details	Observation of RO	Condition No.			Re-assessment by RO / Response by PP
			EC Date	Specific	General	
		immediately.				
5	All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 16th July, 2009 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bhubaneswar.	PAs have informed that the management is interacting with the local community to understand the exact need of the local population and also considering the commitment made during public hearing on the issue and need based social welfare programme are being considered. However, PAs have not submitted any information on the compliance status of the commitments made during the public hearing. Further information on the budget implementing the commitments made, has not been submitted. The same needs to be submitted immediately.	27.08.2010	(xii)	-	PAs have informed that issues rose during public hearing include: employment generation for land losers, adequate plantation in surrounding, operation of pollution control devices, proper maintenance of water body /pond and CSR activity on health and education. PAs have informed that they have already provided employment to total all 72 land loosers in its existing project, provided 1000 trees to the local people of Benipur villager as well as to the local schools. Further, it has been stated that they have increased the areas as well as the depth of two existing ponds located in the surrounding village. Benipur with the cost of Rs. 8.60 Lakhs, conducted free covid vaccination programme as well as organized health camp for the local villagers, spent around Rs. 1.10 Lakh in 2019-20, Rs. 3.90 Lakh in 2020-21 & Rs. 4.10 Lakh in 2021-22. Besides, it has also given donation (Rs. 3.90 Lakhs) to the meritorious students of the surrounding villages
6	At least 5% of the total	PAs need to	27.08.2010	(xiv)	(ix)	PAs have submitted

S. No.	Non-compliances details	Observation of RO	Condition No.			Re-assessment by RO / Response by PP
			EC Date	Specific	General	
	cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner (**Specific Condition**). The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc. (**General Condition**)	submit the details of the year wise CSR activities undertaken by them.				information with respect to CSR activities undertaken by them, and amount spent on those activities.
7	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	PA have not monitored noise level within the plant area. The same needs to be conducted and monitoring data needs to be submitted to the Integrated Regional Office.	27.08.2010	-	(vi)	As per information submitted, it is observed that noise monitoring has been conducted at four locations: near main gate, near SMS shed, near ADM building, and near cooling tower. Noise monitoring data is within the stipulated standard.
8	Requisite amount shall be earmarked towards capital cost and	PAs have not submitted information with	27.08.2010	-	(x)	PAs have informed that the recurring cost/ annum for

S. No.	Non-compliances details	Observation of RO	Condition No.			Re-assessment by RO / Response by PP
			EC Date	Specific	General	
	recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneswar. The funds so provided shall not be diverted for any other purpose.	respect to the recurring cost/ annum for environment pollution control measures to implement the conditions stipulated by the Ministry as well as the State. The same needs to be submitted to the Integrated Regional Office.				environment pollution control measures is for 1x15 T Induction Furnace is Rs. 0.08 Crores.
9	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	PAs need to upload the stipulated environmental clearance conditions, including results of monitored data in their website immediately.	27.08.2010	-	(xi)	It is observed that PAs have uploaded the EC letter and the six monthly compliance reports along with monitoring data in their website: https:// adukiagroup.com
10	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF at Bhubaneswar. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant	PAs need to upload the stipulated environmental clearance conditions including results of monitored data in their website immediately. Further, display board with AAQ data and stack data has not been displayed near	27.08.2010	-	(xii)	It is observed that PAs have uploaded the EC letter and the six monthly compliance reports along with monitoring data. Further, from the photographs of the display board submitted by PAs, it is observed that parameters has been displayed in the display board.

S. No.	Non-compliances details	Observation of RO	Condition No.			Re-assessment by RO / Response by PP
			EC Date	Specific	General	
	levels namely; PM_{10}, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	the main gate of the plant. The same needs to be displayed immediately.				
11	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneswar/ CPCB / SPCB shall monitor the stipulated conditions.	From available records it is observed that PAs are not regular in submitting six monthly compliance report.	27.08.2010	-	(xiii)	As per information submitted by PAs, it is observed that PAs have assured that they will submit six monthly compliance reports in time and without fail in the future.
Conclusion: The PAs have compiled or are in the process of complying the conditions stipulated by the Ministry. Accordingly, the action taken report may be considered for further necessary action.						

15.3.19 M/s. AIC Iron Industries Private Limited had initially applied for EC vide online proposal no. IA/WB/IND/5663/2010 dated 09/02/2022 and the proposal was considered in the 1st meeting of the EAC for Industry-I sector held on 5 - 6th March, 2022 wherein the Committee recommended the proposal to be returned in its present form on account of technical shortcomings. The deliberations and recommendations of the EAC are as follows:

Observations of the Committee (EAC during 5-6th March, 2022)

15.3.20 The committee noted the following:

i. PP shall complete the plantation *with tall trees* in 33% area of the project site with tree density of 2500 per ha all along the project boundary and submit the detail of updated status of green belt with geotag photographs.

ii. Slag from IFs is proposed to be dumped in low lying areas. No details of the lands to be used for dumping has been made available.

iii. Plant photographs indicate poor housekeeping and absence of green belt within the project site.

iv. Corporate policy is addressed in Chapter 10. TOR 9 pertaining to Corporate Environment Policy have not been complied.

v. There is no provision of Environment Management Cell in the EIA report.

vi. BOD and Coliform relations remain a matter of concern with this consultant. BOD concentration of 3 mg/l has been reported for a coliform concentration of 5600 MPN/100ml.

vii. BL data have not been interpreted in Chapter 3 to finalize significant environmental components to quantify project impacts in Chapter 4.

viii. Project benefits have not been quantified in chapter 8.

ix. Pond water has 6.6 mg/l DO at 2400 MPN/100 ml coliform. This needs to be revisited.

Recommendations of the Committee (EAC during 5-6th March, 2022)

15.3.21 In view of the foregoing and after deliberations, the Committee recommended the proposal to be returned in its present form to address the shortcoming enumerated above in para 15.3.20 and submit revised application as per the provisions of EIA Notification, 2006.

15.3.22 Based on the above, M/s. AIC Iron Industries Private Limited has submitted a revised application for EC vide online proposal no. IA/WB/IND/261199/2008 dated 27/09/2022 along with the reply to the point raised by the EAC during 1st meeting of the EAC for Industry-I sector held on 5 - 6th March, 2022 as follows:

S. No.	ADS Point	Reply / Response of PP
1	PP shall complete the plantation with tall trees in 33% area of the project site with tree density of 2500 per ha all along the project boundary and submit the detail of updated status of green belt with geotag photographs.	M/s AIC Iron Industries Private Limited has earmarked 3.30 hectares (8.16 acres) of land for Green Belt Development out of total 10.01 hectares (24.74 acres) of total land within its plant area at Village: Benipur, P.O.: Saltor, P.S.: Neturia, Dist: Purulia in West Bengal. 3.30 hectares (8.16 acres) of land for greenery are already developed as greenbelt within the plant premises where around 6000 number of trees have been planted till date. There is plan to develop further greenbelt by planting more trees. There will be total 8250 number of trees within the plant area. Hence, additional 2250 number of trees shall planted. As advised by the honorable committee during its meeting on 5th March, 2022, greenbelt development in the project area has been given top most priority with plantation of a number of trees the height of which ranged from 6 ft to 16 ft. This is still continuing till the target of minimum 8250 number of trees is achieved. Some relevant photographs with geographical co-ordinates are presented in the EIA Report.
2	Slag from IFs is proposed to be dumped in low lying areas. No details of	There is no proposal of dumping of slag from IFs in low lying areas. The detail of the slag utilisation is presented below. The slag generated from the furnaces shall be 24,000 TPA

S. No.	ADS Point	Reply / Response of PP
	the lands to be used for dumping has been made available.	considering 100% production in the furnaces. After metal recovery about 10% metal shall be recovered from the total slag and the balance 21,600 TPA (as stone chips / road construction materials) shall be used for road construction & repairing / land filling purposes. Considering 7 m width & depth 12 inch (0.3 m) of the road and density of the slag as 3.5 ton/cum, 7,350 T slag may be consumed for 1.0 km stretch. Therefore, the entire quantity of slag generated in a year (21,600 TPA) shall be utilized for the construction of around 3 km roads. As per an estimate, it was found that around 400 km undeveloped (Kuchha) road is existing in the surrounding villages in the 10 km radius area. Hence, there is lot of potential of slag utilisation during construction of these roads.
3	Plant photographs indicate poor housekeeping and absence of green belt within the project site.	The issue of Housekeeping has been taken up seriously and is accordingly addressed. The relevant photographs are presented herewith. The issue of Greenbelt within the project site has been discussed as reply to query no. I. Some relevant photographs are presented in the EIA Report.
4	Corporate policy is addressed in Chapter 10. TOR 9 pertaining to Corporate Environment Policy have not been complied.	**Corporate Environment Policy** i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report. Yes. The Company has a well laid down Environment Policy approved by the Board of Directors and the same is enclosed as Addendum in the EIA Report. ii. Does the Environment Policy prescribe for standard operating process/ procedures to bring into focus any infringement/ deviation/ violation of the environmental or forest norms/ conditions? If so, it may be detailed in the EIA. Yes. Environment Policy clearly mentions that, in case of emergency (non-compliance/ infringement / deviation / violation / major accident), Head of Environment Department will do immediate reporting to the Chairman cum Managing Director of the Company. The detailed policy is enclosed as Addendum in the EIA Report. iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given. The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the

<table>
<tr><th>S. No.</th><th>ADS Point</th><th>Reply / Response of PP</th></tr>
<tr><td></td><td></td><td>environmental clearance conditions is furnished as Addendum in the EIA Report.

iv. Does the company have system of reporting of non-compliances/ violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report.

Yes. To have proper checks and balances, the company has a well laid down system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and the same is represented in the EIA Report.</td></tr>
<tr><td>5</td><td>There is no provision of Environment Management Cell in the EIA report.</td><td>ENVIRONMENTAL MANAGEMENT CELL

The Company is already having a full-fledged environmental management cell for taking effective pollution control and environmental protection measures. Following are the functions of environmental management cell:

Functions of Environmental Management Cell
➢ Responsible operation related to collection, treatment and disposal facilities for air emissions, waste water and solid wastes.
➢ Routine monitoring of relevant parameters to determine pollution levels.
➢ Ecological monitoring and green belt maintenance.
➢ Implementation of environmental management plan.
➢ Data handling, reporting, liaison with statutory bodies as well as future planning regarding environment management.

The Hierarchy of Corporate Environment Management Cell of the company is presented in the EIA Report.</td></tr>
<tr><td>6</td><td>BOD and Coliform relations remain a matter of concern with this consultant. BOD concentration of 3 mg/l has been reported for a coliform concentration of 5600 MPN/100ml.</td><td>ADDITIONAL RIVER WATER QUALITY ANALYSIS FOR DAMODAR RIVER:

During the 51st meeting of Reconstituted Expert Appraisal Committee (Industry-1) of Ministry of Environment, Forest and Climate Change (MoEF&CC), Govt. of India dated 12th January, 2022, in connection with the appraisal of M/s AIC Metaliks Pvt. Ltd., the sister company of M/s AIC Iron Industries Pvt. Ltd., the Honourable Committee members raised the concern regarding the obtained values of BOD and Total Coliform of the River water.

Accordingly, fresh river water samples were collected on 2nd February, 2022 following standard protocols for sample collection and testing. The results obtained are presented below,

<table>
<tr><th>Sampling Date</th><th>Damodar River Near</th><th>Damodar River Near</th></tr>
</table>
</td></tr>
</table>

<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 colspan="3"></td><td>Narayanpur
02.02.2022</td><td>Parbeliya
02.02.2022</td></tr>
<tr><td>S. No.</td><td>Parameter</td><td>Unit</td><td>Concentration</td><td>Concentration</td></tr>
<tr><td>1</td><td>pH</td><td>-</td><td>7.31</td><td>7.24</td></tr>
<tr><td>2</td><td>DO</td><td>mg/L</td><td>7.2</td><td>7.4</td></tr>
<tr><td>3</td><td>COD</td><td>mg/L</td><td>11</td><td>9</td></tr>
<tr><td>4</td><td>BOD</td><td>mg/L</td><td>3</td><td>2</td></tr>
<tr><td>5</td><td>Total Coliform</td><td>MPN/100 ml</td><td>1400</td><td>1200</td></tr>
<tr><td>6</td><td>Free NH3</td><td>mg/L</td><td><0.05</td><td><0.05</td></tr>
</table>
</td></tr>
<tr><td>7</td><td>BL data have not been interpreted in Chapter 3 to finalize significant environmental components to quantify project impacts in Chapter 4.</td><td>The same is addressed in the relevant sections in the EIA report.</td></tr>
<tr><td>8</td><td>Project benefits have not been quantified in chapter 8.</td><td>The same is addressed in the relevant sections in the EIA report.</td></tr>
<tr><td>9</td><td>Pond water has 6.6 mg/l DO at 2400 MPN/100 ml coliform. This needs to be revisited.</td><td>All the relevant data have been checked in the EIA Report in view of the concern raised against this query. 6.6 mg/l DO has been found in two pond water samples at village Ranipur and village Marjadpur. The corresponding figures of Total Coliform in these two samples are 1210 MPN/100 ml and 990 MPN/100 ml respectively.</td></tr>
</table>

15.3.23 Based on the above submission, the proposal is considered in the 15th meeting of the EAC for Industry-I sector held on 17-18th October, 2022. The deliberations and recommendations of the EAC are as follows:

Written representations:

15.3.24 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 17.10.2022 through email dated 17.10.2022 submitted the following information:

- It has been decided to develop one nearby village namely Benipur by adopting the same by addressing the socio-economic needs of the villagers. The budget for this purpose is Rs. 70.2 Lakhs, which will be spent under the following heads:

Targets	Amount in Rs. Lakhs
To take care of local people's health	40
Development of 2 tube wells	2
Construction of 2 Rain Water Harvesting structures	5

Construction of 1 km new road and repairing of existing roads	10
Renovation & repairing of school building	3
Development of playground and library	3
Providing 10 nos. Solar light	2
Development & maintenance of 2 ponds	5
Providing Dustbins	0.2
TOTAL	**70.2**

- Overall Budget of CER including Public Hearing related & Need based Activities: Rs. 134 Lakhs.
- In Form2, PP has mentioned the CER cost as zero which should be read as Rs. 134 Lakhs.

Deliberations by the Committee

15.3.25 The Committee noted the following:

1. The instant proposal is for expansion of existing Steel Plant by installation of 1x400 TPD Sponge Iron Plant (1,32,000 TPA), Steel Melting Shop for total production of 2,60,500 TPA Billets, 1,92,000 TPA Rolling Mill with 1x15 TPH Reheating Furnace and Captive Power Plant [20 MW (10 MW WHRB + 10 MW AFBC)] within the existing plant premises.
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 (NOC) from West Bengal Pollution Control Board vide Consent Letter Memo. No 1334/I-WPBA-NOC (816)/05 dated 15/12/2006 and Consent Letter Memo. No 478/WPBA-NOC (816)/05 dated 03.05.2010 for 1x3 T and 1x6 T Induction Furnaces. Environmental Clearance is accorded ministry letter no F. No. J-11011/ 566/2008-IA II(I) dated 27/08/2010 for

4x100 TPD DRI Kiln, 2x15 T Induction Furnaces and CPP of 12 MW CPP (8 MW WHRB + 4 MW AFBC). Except 1x15 T Induction Furnaces, the project proponent could not implement other facilities envisaged in the EC dated 27/08/2010.

6. The total project area is 10.01 ha. Expansion project is proposed in existing project area. Complete land is under possession of company.

7. The nearest habitation to plant are Benipur (0.1 km, NNE) and Boropukur (0.6 km, NNE) from the project site boundary.

8. The water requirement for the existing & proposed expansion project is estimated as 497.5 m^3/day (Fresh Water 397.5 m^3/day and recycled water 100 m^3/day). The raw water will be sourced from Damodar River through DVRRC supply (after expansion).

9. Damodar River (2.8 Km, NW), Panchet Reservoir (3.84 Km, W) and Baranti Reservoir (8.66 Km, SSE) exists within the study area. 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.

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

11. The EAC noted that existing green belt has been developed in 3.30 ha (8.16 acres) of land within the plant premises where around 6000 number of trees (@1500 trees per hectares) have been planted. There is plan to develop further greenbelt by planting more trees @2500 trees per hectares. There will be total 8250 number of trees within the plant area. Hence, additional 2250 number of trees shall be planted. The Committee deliberated on the action plan and budget allocation for green belt development and is of the opinion that greenbelt shall be developed in 33% project area @2500 trees per hectares within a year.

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 action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.

14. The Committee deliberated upon the certified compliance report of IRO MoEFCC as well as action taken report submitted by PP along with review report by IRO and is of the opinion that PP shall strictly comply with the partially complied conditions reported by IRO as per the submitted action plan.

15. The Committee also deliberated on the reply of PP to the points raised during the previous EC application 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:

15.3.26 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 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. 497.5 m^3 /day of water requirement after the proposed expansion shall be met from Damodar River through DVRRC supply (397.5 m^3 /day) and 100 m^3 /day shall be recycled. No ground water shall be abstracted.
iv. Following additional arrangements to control fugitive dust shall be provided:
    a. Fog / Mist Sprinklers at all conveyors point and on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
    b. Proper covered vehicle shall be used while transport of materials.
    c. Wheel Washing mechanism shall be provided in entry and exit gates with complete recirculation system.
v. All internal road and connecting road from project site to main highway shall be developed and maintained with suitable Million Axle Standard (MSA) as per the traffic load due to existing and proposed project.
vi. 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.

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

viii. Particulate matter emission from stacks shall be less than 30 mg/Nm^3. Action plan submitted to limit the dust emission shall be strictly implemented.

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

x. Damodar River (2.8 Km, NW), Panchet Reservoir (3.84 Km, W) and Baranti Reservoir (8.66 Km, SSE) exists within the study area. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

xi. 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.

xii. 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.

xiii. Benipur (0.1 km, NNE) and Boropukur (0.6 km, NNE) exists within the study area of project site. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include this location in its environmental monitoring programme.

xiv. As committed to adopt Benipur village, project proponent shall prepare and implement a robust plan to develop it into model villages in next 10 years.

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% of the project area 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. Air Cooled condensers shall be used in the captive power plant.

xix. During operational phase at Captive Power Plant, PP shall measure coal dust exposures and to maintain coal dust exposures within stipulated standards at coal handling areas. PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.

xx. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020

shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

xxi. The project proponent shall maintain the records on the total dust generated per month and the percentage of dust captured by pollution control equipments and to be submitted to IRO on six-monthly basis.

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

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

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

III. Water quality monitoring and preservation

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

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

i. Used refractories shall be recycled.

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

VII. Green Belt

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

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

VIII. Public hearing and Human health issues

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

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

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

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.

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

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

X. Miscellaneous

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

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

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

iv. The project proponent shall monitor the criteria pollutants level namely; 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 of Environmental Clearance

Agenda No. 15.4

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

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

15.4.1 M/s. Sree Metaliks Limited has made an application vide proposal no. IA/OR/IND/287092/2022 dated 18.08.2022 along with copy of EIA/EMP Report, Form - 2 and Certified EC Compliance Report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. '3(a)' Metallurgical industries (Ferrous & Non-ferrous) and '2(b)' Beneficiation Plant under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

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

Details submitted by Project proponent

15.4.3 The details of the ToR are furnished as below:

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

	Reference (ToR)			

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

15.4.5 Environmental Site Settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td>i.</td><td>Total land</td><td>120 Acres (48.56 ha) [Private: 40.36 ha; Govt: 8.2 ha]

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Area (Ha)</th><th>%</th></tr>
<tr><td>1</td><td>Main Plant</td><td>29.19</td><td>60.1</td></tr>
<tr><td>2</td><td>Green Belt</td><td>15.99</td><td>33.0</td></tr>
<tr><td>3</td><td>Solid Waste Management</td><td>01.82</td><td>3.7</td></tr>
<tr><td>4</td><td>Built up Area</td><td>01.56</td><td>3.2</td></tr>
<tr><td colspan="2">TOTAL PROJECT AREA</td><td>48.56</td><td>100.0</td></tr>
</table></td></tr>
<tr><td>ii</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>48.56 hectare of land is already in possession of M/s Sree Metaliks Limited.</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project Site:

Study Area:
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Keonjhar</td><td>14.62 km</td><td>SE</td></tr>
<tr><td>Joda</td><td>32.73 km</td><td>N</td></tr>
</table></td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site</td><td>Latitude: 21° 41' 9.614" to 21° 41' 11.257" N
Longitude: 85° 25' 48.499" to 85° 26' 0.979" E</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>524-533 M above mean sea level.</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No forest land involved.</td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Project site:
No

Study area:
<table>
<tr><th>Water body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Baitarani River</td><td>6.14</td><td>NW</td></tr>
<tr><td>Jagdhala Nala</td><td>5.45</td><td>NE</td></tr>
</table></td></tr>
</table>

S. No.	Particulars	Details
		Malda River: 9.14, NW Bamni Nalla: 0.59, SSE Chamda Nala: 6.83, S Kadal Nala: 7.08, ENE
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil Three Reserve Forest and Five protected forest is present within 10km area of the project. 1. Nayagarh RF – 6.86 km, NE 2. Ichinda RF - 7.43 km, S 3. Khejurmundi RF - 8.24 km, S 4. Raigurha PF - 1.37 km, SW 5. Jagar PF - 2.86 km, SE 6. Amuni PF - 1.90 km, E 7. Gandhamardan PF - 8.25 km, SE 8. Kumundi PF - 5.4 km, SSE

15.4.6 The existing project was accorded environmental clearance vide lr. no. J-11011/192/2008-IA.II(I), dated 13.07.2009. Consent to Operate for the existing unit was accorded by Odisha State Pollution Control Board vide lr. No. 1944/IND-I-CON-6355 dated 10.02.2021. The validity of CTO is up to 31.03.2026.

15.4.7 Implementation status of the existing EC:

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

S. No.	Facilities/Units	As per EC dated 13.07.2009	Implementation Status as on August 2022	Production as per CTO
	FBB	*20 MW*	Dropped	---

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

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

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

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

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

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

15.4.12 Baseline Environmental Studies:

Period	1st March 2022 to 31st May 2022
AAQ parameters at 10 Locations (min and max)	• $PM_{2.5}$ = 20.8 to 39.2 µg/m^3 • PM_{10} = 50.1 to 80.5 µg/m^3 • SO_2 = 4.7 to 25.0 µg/m^3 • NO_X= 10.1 to 29.3 µg/m^3 • CO = <0.1 to 0.50 mg/m^3
Incremental GLC level	• 80.56 µg/m^3 with respect to the PM_{10}, 39.98 µg/m^3 with respect to the $PM_{2.5}$, 25.79 µg/m^3 with respect to the SO_2 and 30.71 µg/m^3 with respect to the NOx, 0.50 mg/m^3 with respect to the CO.
Ground water quality at 8 Locations	• pH: 6.55 to 7.11, • Total Hardness: 88 to 152 mg/l, • Chlorides: 7.9 to 15.9 mg/l, • Fluoride:0.26 to 0.33 mg/l, • Heavy metals (Mercury, Lead, Cadmium & Arsenic): BDL
Surface water quality at 8 Locations	pH: 6.99 to 8.25, DO: 5.6 to 6.4 mg/l, BOD: 2.2 to 2.8 mg/l,
Noise levels Leq (Day and Night)	44.6 to 66.8 for the day time and 37.7 to 57.4 for the Night time.

Traffic assessment study findings

- Traffic study has been conducted on Raigurha Road which is approximately 1.0 km from the plant site.
- Transportation of raw material, fuel & finished product will be done 70% by road.

EXISTING TRAFFIC DENSITY ON RAIGURHA ROAD

EXISTING TRAFFIC SCENARIO & LOS					
Sl. No.	***Road***	***V (Volume in PCU/day)***	***C (Capacity in PCU/day. as per IRC: 64-1990)***	**Existing V/C Ratio**	**LOS**
1	RAIGURHA ROAD	**2916**	15000*	0.19	A

Raw Materials: **735850.5 T**

Additional quantity of raw materials to be transported in addition to existing works out to **735850.5T/Annum**
Amount of raw materials to be transported per day 735850.5/300=2453 T/day
Taking Truck capacity as 22 T
No of Trucks to be engaged for transportation of raw materials= 2453/22=111.5 that is **111.5** Trucks per day

Proposed Traffic Density on Raigurha Road

PROPOSED TRAFFIC SCENARIO & LOS					
Sl. No.	***Road***	***V (Volume in PCU/day)***	***C (Capacity in PCU/day as per IRC: 106-1990)***	**Existing V/C Ratio**	**LOS**
1	RAIGURHA ROAD	764	15000*	0.05	A

Total Traffic Density on Raigurha Road = Existing + Proposed

= 2916+764
= 3680

V (Volume in PCU/day) =3680
C (Capacity in PCU/day. as per IRC: 64-1990) = 15000*
Existing V/C Ratio =3680/15000=0.24 **(Very Good-B)**

As per IRC: 64-1990 code LOS & performance relation is

V/C	LOS (Level of Service)	Performance
0.0 - 0.2	A	Excellent
0.2 - 0.4	B	Very Good
0.4 - 0.6	C	Good
0.6 - 0.8	D	Poor
0.8 - 1.0	E	Very Poor
Note : Heavy: Truck, Bus, Cranes, **Medium:** Minibus, Matador, **Light:** Car, Jeep, Auto Rickshaw, Trekker		

* Note: Capacity as per IRC-106:1990 Guide line for capacity for roads.

	Conclusion: The LOS value is "B" for Raigurha Road after including additional traffic due to proposed project. Further long term contact are being processed with OMC, Gandhamardan mine to bring 1 M.T.P.A. Iron Ore by long distance conveyer system (around 8 km long OMC Mine to SML, Arna Plant.
Flora and fauna	Schedule-I species i.e. Elephant is recorded in the buffer zone of plant area. Site Specific Wildlife Conservation Plan has been prepared and submitted to State Forest Department. Proposal forwarded by DFO, Keonjhar vide letter Memo No. 7843/6F-Mining dated 13.10.2022 to RCCF, Rourkela and copy to PCCF, Bhubaneswar vide letter Memo No. 7844 dated 13.10.2022.

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

Sl. No.	Type of Waste	Source	Quantity Generated (TPA)	Mode of Transportation	Treatment and Disposal
Solid Waste					
1.	Tailings	Iron Ore Beneficiation Plant	2,20,000 TPA	Road	• Dewatered and stored in slime/tailing storage area & the collected water will be recycled in process. • Disposed to construction contractors road construction filings.
Hazardous Waste					
1	Used Oil	-	14.4 KL/A	-	• Storage in containers over concrete floor under well. • Sale to actual users having valid authorisation from SPCB, Odisha.*
2	Oil Residue	-	0.72 KL/A		• Storage in impervious pits/ containers under well ventilated cover shed. • Disposed to Authorized HW incinerator/ Common Hazardous Waste Treatment Storage Disposal (CHWTSDF), Jajpur.*
No. of Authorization : IND-IV-HW- 1300/2731, date of issue 16/03/2019, Ref of application: 2128407, dated 21/04/2018 / 14/01/2019.					

15.4.14 **Public Consultation:**

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

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

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

Expenditure Incurred on issues raised during earlier PH dated 20.02.2009 are as follows:

S. No.	Description	Amount Spent (in Rs. Lakhs)	
		Capital Expenditure	Recurring Expenditure (2021-22)
1.	Health Hygiene	28.15	29.98
2.	Road & InfrastructureEducation	26.32	2.27
3.	Skill Up Gradation of Local Youth	75.80	12.75
4.	Health Hygiene	--	4.23
5.	Road & InfrastructureEducation	13.68	--
Total		**143.95**	**49.13**

Breakup of Activities undertaken

HEALTH		
S. No	**Description**	**Amount Spent**
Recurring Annual Expenditure 2021-22		
1.	Annual expenditure for medicines, etc. for villagers in2021-22	6,25,936.00
2.	Ambulance 2 Nos. facility is provided to all local people	12,02,833.00
3.	Malaria eradication support. Regular Fogging and Anti-Larva operation is being done in neighbouring villages regularly. Free Malaria Medicine distribution.	7,14,000.00
4.	Annual Health Camps are organised for last 3 years (21st August'2020, 8th May'2021 & 7th March'2022). Expenditure of 2021-22	4,55,000.00
	Total	**29,97,769.00**

HEALTH		
S. No	**Description**	**Amount Spent**
Capital Expenditure		
1.	New Dispensary building is under construction adjacent to the boundary of the factory (Existing dispensary is litu inside boundary)	**28,15,000.00**

HYGIENE (Water Supply to Villages)		
S. No	**Description**	**Amount Spent**
Capital Expenditure		
1.	Pond renovation at Anra Village	8,00,000.00
2.	Drinking water supply at Anra Village (Borewell, SubmersiblePimp, Overhead Tank, Pipeline Network	15,00,000.00
3.	Drinking water supply to Raigoda village (Borewell, Overhead Tank & Pump)	3,32,000.00
	Total	**26,32,000.00**
Recurring Annual Expenditure 2021-22		
1	One Operator for Water Supply	1,57,000.00
2	Maintenance of water supply system(2021-22)	70,000.00
	Total	**2,27,000.00**

ROAD & INFRASTRUCTURE DEVELOPMENT		
S. No	**Description**	**Amount Spent**
Capital Expenditure		
1.	Construction of Concrete Road at Raigoda Chowk	35,52,000.00
2.	Construction of Rahas Mandap at Anra	20,00,000.00
3.	Construction of Puja Mandap for Goddess Puja at Anra	3,78,000.00
4.	Construction of Club at Anra	4,00,000.00
5.	Construction of Mandap at Raigoda	10,00,000.00
6.	Construction of Community Centre at Sankaraposi	2,50,000.00
	Total	**75,80,000.00**
Annual Expenditure for Road & Culvert Maintenance 2021-22		
	Expenditure towards Road Repairing in 2021-22	**11,00,000.00**
	Expenditure towards Culvert Repairing in 2021-22	**1,75,000.00**
	Total	**12,75,000.00**
* Bridge over Bamani Nalla was taken up with State Govt. since is is a Govt. road. Itis in advance stage of tendering P.W.D., Govt. of Odisha for execution.		

EDUCATION		
Sl. No	**Description**	**Amount Spent**
1	Salary of One School Teacher at Anra U.P. School	1,09,000.00
2	Salary of 2 School Teachers At Anra UG High School	1,92,000.00
3	Maintenance Civil Works done in Saraswati Sishu Mandir, Anra	1,22,000.00
	Total	**4,23,000.00**

EDUCATION		
Sl. No	**Description**	**Amount Spent**

Communication
To improve communication, BSNL towers has been installed within Plant premises. 24 hrs Power supply is being provided by company for its uninterrupted operation.

SKILL UPGRADATION		
S. No.	**Description**	**Amount Spent**
1.	35 nos. of local youth sponsored in various trade inITI.	**13,68,000.00**

EMPLOYMENT OF LOCAL PEOPLE	
S. No.	**Description**
1.	403 persons are employed from neighbouring villages as regular employee
2	50 Local persons are employed on contract (cleaning, canteen wash etc jobs)

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

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

15.4.16 The total project is spread over an area of 48.56 ha (120 Acres), out of which the green belt area earmarked is over 16.18 ha (40 Acre). The existing green belt is developed over 9.92 ha (24.5 Acre) and the balance area to be developed under green belt is 6.26 ha (15.5 Acre). PP has also submitted an undertaking vide letter dated 15.09.2022 to complete the greenbelt development by end of this monsoon. The greenbelt development programme @ 2500 trees per hectare is under continuation and shall be completed within the stipulated time.

15.4.17 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:

15.4.18 The Status of compliance of earlier EC was obtained from Integrated Regional Office, Bhubaneswar vide letter no. 101-521/EPE dated 20.06.2022 in the name of M/s Sree Metaliks Limited. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Bhubaneswar dated 21.07.2022. IRO, MOEF&CC, Bhubaneswar re-visited the site on 03.08.2022 and issued the closure report in continuation to the partially complied conditions of earlier EC. The status of conditions as per review report of the IRO, Bhubaneswar issued vide letter no. 101-521/EPE/2078 dated 26.08.2022 is as follow:

1	**Stipulated Specific Condition No. vii:** Total water requirement from Baitarni River and bore wells shall not exceed 857 m3/hr. Ground water requirement shall not exceed the limit stipulated by the CGWA vide letter no. 21-4 (71)/SER/CGWA/2008/035 dated 22nd September, 2008. Closed circuit re-circulation system shall be installed to reduce fresh water consumption and no wastewater generation. BF-GCP and coal washery water shall be treated in thickener and used in the pig casting machine. Acidic and alkaline effluent from DM water plant shall be neutralized and reused for dust suppression and gardening etc. All the wastewater from coal washery (belt press), MBF (ventury scrubber), Power Plant (cooling tower and boiler blow down) and back wash of filtration unit of Water Treatment Plant shall be treated in Common Effluent Treatment Plant (CETP) and recycled/reused for various activities at the site including dust suppression, green belt, ash moistening and firefighting etc. No wastewater shall be discharged outside the premises and Zero effluent discharge shall be ensured. Domestic effluent shall be treated in septic tank followed by soak pit and used for green belt development.		
	Observation of Regional Office on report dated 20.06.2022	**Action Taken Report submitted By M/s Sree Metaliks Ltd Dt.21.07.2022**	**Comments By IRO Bhubaneswar dated 26.08.2022 / Response by PP dated 18.10.2022**
	The project authorities establish a proper water storage and treatment facility for optimum utilization of waste water	Complied Water required in the plant process is mainly used for cooling purpose and is re-circulated through the process. There is no such trade effluent generated from the process i.e. zero discharge from the process. The run off generated during the monsoon period is being channelized to a settling cum harvesting pond. Action has been initiated to construct a settling cum harvesting pond with increase dimension with network of drains. Drain network more than 70% has been completed (Annexure I). This work will be completed by March-2023. Further, towards treatment of domestic effluent of the plant premises a STP is under construction (Annexure II) which will be completed by December 2022. The treated water will be used for plantation and sprinkling purpose.	The EC has been accorded for integrated steel plant of 0.5 MTPA; however, at present only one pellet plant is in operation. DRI, MBF pig iron, Sinter plant, SMS, Coal washery, Captive power plant has not been constructed. However, proper collection arrangement for runoff rain water from the raw material yard yet to be made. PA submitted that action has been initiated to construct a settling-cum- harvesting pond with increase dimension with network of drain and the work will be completed by March, 2023. **Response by PP dated 18.10.2022** For proper collection of Surface Run off, storm water drains have been already constructed and a settling cum harvesting pond is under construction in the NW direction of the project area. The construction work is in progress and shall be completed within the committed time i.e. before March 2023.
2	**Stipulated Specific condition No.xi:** Iron ore fines, DRI fines, coal fines, sinter dust, GCP dust, SMS dust etc. shall be used in sinter plant. Bag filter dust from pellet plant shall be recycled in the process. Usable scrap from BF and SMS shall be recycled back in the SMS. Slag from IF, EAF and LRF shall be recycled through sinter/blast furnace. Tailings from Iron ore beneficiation plant shall be disposed off in tailing ponds. All the other solid wastes including broken refractory mass shall be properly disposed off in environment-friendly manner. Used oil and oily waste shall be provided to authorized recyclers / re-processors.		
	Observation of Regional Office on report dated 20.06.2022	**Action Taken Report submitted By M/s Sree Metaliks Ltd Dt.21.07.2022**	**Comments By IRO Bhubaneswar dated 26.08.2022 / Response by PP dated 18.10.2022**

	The components of the iron and steel industrial units have not been installed in the project. Presently only pallet plant is in operation and which has bag filter dust from pellet plant which is being recycled in the process. Used oil and other hazardous water are properly stored and disposed of to authorized recycler unit.		The EC has been accorded for integrated steel plant of 0.5 MTPA; however, at present only one pellet plant is in operation. DRI, MBF pig iron, Sinter plant, SMS, Coal washery, Captive power plant has not been constructed. It was informed that Very minimal quantity of Hazardous Waste like Used Oil and Waste Containing Oil is generated. **Response by PP dated 18.10.2022** Very minimum quantity of Used Oil & Waste Containing Oil generated from Pellet Plant. The Hazardous Waste Authorization has already obtained from State Pollution Control Board, Odisha vide letter no. IND-IV-HW-1300/2731, dated 16.03.2019 which is valid upto 31.03.2023. PP is regularly submitting the Annual Return in Form 4 to State Pollution Control Board, Odisha in relation to generation, collection, handling and disposal of Hazardous Waste.
3	**Stipulated Specific Condition No.xiv:** Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Regional Office at Bhubaneswar, CPCB and OPCB.		
	Observation of Regional Office on report dated 20.06.2022	**Action Taken Report submitted By M/s Sree Metaliks Ltd Dt.21.07.2022**	**Comments By IRO Bhubaneswar dated 26.08.2022 / Response by PP dated 18.10.2022**
	Details on hazardous wastes, if any, should be submitted to this office.	Complied At present only 0.6 MTPA pellet plant is under operation. Very minimal quantity of Hazardous Waste like Used Oil and Waste Containing Oil is generated which is stored as per the guideline of Hazardous and Other Waste (Management and Trans-boundary Movement) Rules, 2016 and amendments thereof. However used oil is being reused for lubrication.	The PP has obtained Hazardous waste Authorization from state Pollution control Board vide letter No.IND-IV-HW-1300/2731 dated 16-03-2019 with validity up to 31-03-2023. It was informed that Very minimal quantity of Hazardous Waste like Used Oil and Waste Containing Oil is generated. The used oil is being reused in lubrication. **Response by PP dated 18.10.2022** Very minimum quantity of Used Oil & Waste Containing Oil generated from Pellet Plant. The Hazardous Waste Authorization has already obtained from State Pollution Control Board, Odisha vide letter no. IND-IV-HW-1300/2731, dated 16.03.2019 which is valid upto 31.03.2023. PP is regularly submitting the Annual Return in Form 4 to State Pollution Control Board, Odisha in relation to generation, collection, handling and disposal of Hazardous Waste.
4	**Stipulated Specific Condition No. xv:** A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.		
	Observation of Regional Office on report dated 20.06.2022	**Action Taken Report submitted By M/s Sree Metaliks Ltd Dt.21.07.2022**	**Comments By IRO Bhubaneswar dated 26.08.2022 / Response by PP**

			dated 18.10.2022
	A copy of the time bound action plan to reduce solid waste, its proper utilization and disposal should be submitted to this office	Complied There is no such solid waste generation from the plant process as only 0.6 MTPA pellet plant is under operation. However, the waste generated during process i.e. dust from ESP is being completely reused in the process. Scrapsis / shall be sold to outside party as and when generated.	The EC has been accorded for integrated steel plant of 0.5 MTPA; however, at present only one pellet plant is in operation. PP informed that there is no such solid waste generation from the plant process and the waste generated during process i.e. dust from ESP is being completely reused in the process. It was informed that as soon as the beneficiation plant and steel plant will come in operation a time bound action plan to reduce solid waste and its proper utilization and disposal will be submitted and implemented. **Response by PP dated 18.10.2022** Solid Waste generated from the process i.e. from Pellet plant is collected through Air Pollution Control Equipment and is being completely reused in the process. After the operation of the beneficiation plant, PP has also proposed to set up a brick manufacturing unit to utilise the tailings. Hence, PP is committed for proper utilization of the solid waste in existing and proposed plant.
5	**Stipulated Specific Condition No. xvii:** As proposed, green belt shall be developed in 33 % area in and around the plant as per the CPCB guidelines in consultation with DFO.		
	Observation of Regional Office on report dated 20.06.2022	**Action Taken Report submitted By M/s Sree Metaliks Ltd Dt.21.07.2022**	**Comments By IRO Bhubaneswar dated 26.08.2022 / Response by PP dated 18.10.2022**
	The project authorities should formulate a comprehensive green belt development plan in consultation with DFO as per the guidelines of CPCB, Detailed information on the species planted and percentage of survival should be communicated to this office	Out of the total existing plant area i.e. 120 Ac, 40 Ac (33% of the area) need to be covered under plantation. Till date 16 Acre has been covered under plantation with native species like Chakunda, Karanj, Neem, Mango, Radhachuda, Krishnachuda etc. A comprehensive green belt development plan as per the guidelines of CPCB, is being prepared, which will be submitted by month of September 2022. Plantation will be done in the remaining 24 Acre in the upcoming monsoon and shall be completed by 2024.	During visit plantation in patches has been observed. PP reported that the green belt has been developed over 24.5 acre of land. Total plantation reported is 24,400 and percentage of survival reported as 72.9. During visit fresh plantation has also been observed. It was also informed that out of total area of 24.5 acre 8.00 acre has been developed during 2022-23. **Response by PP dated 18.10.2022:** The total project is spread over an area of 48.56 ha (120 Acres), out of which the green belt area earmarked is over 16.18 ha (40 Acre). Till date, PP has already completed the entire 33% of the total project area ie. 16.18 ha as per their commitment to the EAC meeting held on 30.08.2022.
6	**Stipulated Specific Condition No. xviii:** All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Sector shall be implemented.		
	Observation of Regional Office on report dated 20.06.2022	**Action Taken Report submitted By M/s Sree Metaliks Ltd Dt.21.07.2022**	**Comments By IRO Bhubaneswar dated 26.08.2022 / Response by PP dated 18.10.2022**

	The detailed information on all the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Sector and its status of compliance should be communicated to this office.	Complied Towards the control of pollution, The project authority installed dust extractor system comprising ESP and multi cyclone installed in the Pellet plant towards control of Air Pollution. Fugitive emission generation points have been provided with suction devices connected to bag filter. Dust suppression system for raw material handling area also provided. Water sprinkling is carried out frequently. Further, Water required for plant mainly used for cooling & domestic purpose. Hence there is no such trade effluent generated from this activity. There is no chance of overflow of any type of waste water from the premises. The waste generated during technical process i.e. dust from ESP is being completely reused in the process. Hazardous waste i.e. used oil generated from the DG sets are being reused in lubrications. Towards conservation of rain water, roof-top rain water harvesting structure inside the building roof of plant premises has been completed.	The EC has been accorded for integrated steel plant of 0.5 MTPA; however, at present only one pellet plant is in operation. DRI, MBF pig iron, Sinter plant, SMS, Coal washery, Captive power plant has not been constructed. PP submitted purchase order for stack dust monitor and stack opacity meter vide PO dated 15-07-2022. CREP recommendation for steel plant such as online stack monitoring system, continuous ambient air quality station yet to be provided. Overall housekeeping needs to be improved. **Response by PP dated 18.10.2022** PP has already placed the order on 15.07.2022 for installation of Continuous Ambient Air Quality Monitoring System (CAAQMS). The work order copy of the same is submitted. PP assure that on before 15th November, 2022 they will install in their plant.
7	**Stipulated Specific Condition No.xix:** All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 20th February, 2009 shall be satisfactorily implemented.		
	Observation of Regional Office on report dated 20.06.2022	**Action Taken Report submitted By M/s Sree Metaliks Ltd Dt.21.07.2022**	**Comments By IRO Bhubaneswar dated 26.08.2022 / Response by PP dated 18.10.2022**
	The project authorities should inform this Office on the status of implementation of the commitments made during public hearing.	Complied Towards the compliance of commitment made during the public hearing project authorities spend Rs 1.34 Crore as a capital investment and Rs 34.16 lakhs as recurring expenditure. The detail of the public hearing compliance with expenditure is attached as Annexure-III. The existing dispensary inside the factory will be shifted to the boundary of the factory premises, so that it can cater better service to villagers, by December -2022. Bridge over Bamuni Nalla is being taken up by State Govt. under DMF.	In compliance of the public hearing commitment PP informed that three number of health camp have been organized during 2020-2022, ambulance facility provided to local people, treatment facility provided for the local villagers at the dispensary inside the premises, fogging as Malaria eradication programme is being done, pond renovation at Anra village, drinking water supply to Anra village, drinking water supply at Raigoda village, road repairing from Raigoda to Anra, Kaliapal to Andhari Khaman village, Dumuridihi to Kumudi, construction of Mandap, community centre, club in different villages, 35 number youths of neighboring villages sponsored for various trades in ITI, civil work in school and salary of school teacher. Total expenditure reported to be Rs.1.28 crores. **Response by PP dated 18.10.2022** Complied. The major issues raised during the earlier PH was related to Health & Hygiene, Road & Infrastructure,

<table>
<tr><td></td><td></td><td></td><td>Education, Skill Upgradation of Local youth and employment. PP has carried out various work related to the issues and the expenditures under various purposes is summarized below.

<table><tr><th>Description</th><th colspan="2">Amount Spent (in lakhs)</th></tr><tr><td></td><td>Capital</td><td>Recurring (2021-22)</td></tr><tr><td>Health</td><td>28.15</td><td>29.98</td></tr><tr><td>Hygiene</td><td>26.32</td><td>2.27</td></tr><tr><td>Road & Infrastructure</td><td>75.80</td><td>12.75</td></tr><tr><td>Education</td><td>--</td><td>4.23</td></tr><tr><td>Skill Upgradation</td><td>13.68</td><td>--</td></tr><tr><td>Total</td><td>143.95</td><td>49.23</td></tr></table>
PP has provided employment to 403 nos. persons from neighbouring villages as regular employee and 50 local persons are employed on contract.</td></tr>
<tr><td>8</td><td colspan="3">Stipulated Specific condition No.xx: Recommendations of the State Forest Department shall be obtained regarding likely impact of the proposed steel plant on the surrounding reserve/protected forests viz. Nayagarh RF (6.92 km NE), Amuni PF (2.18 km E), Gandhamardjan RF (4.58 km SE), Gachinda RF (7.77 km E), Jagar PF (3.83 km SE), Kumundi PF(6.39 km S), Khairimundi RF (9.20 km S), Raiguda PF (2.25 km SW) located within 10 km radius of the proposed project site and implemented.</td></tr>
<tr><td></td><td>Observation of Regional Office on report dated 20.06.2022</td><td>Action Taken Report submitted By M/s Sree Metaliks Ltd Dt.21.07.2022</td><td>Comments By IRO Bhubaneswar dated 26.08.2022 / Response by PP dated 18.10.2022</td></tr>
<tr><td></td><td>The project authorities are to submit a copy of the recommendations of the Forest Department along with an action plan along with implementation schedule.</td><td></td><td>PP has submitted copy of a work order for preparation of site specific wildlife conservation plan along with recommendation of State Forest Department, regarding likely impact of the proposed steel plant on the surrounding reserve/protected forest located with 10 km radius of the proposed project site vide letter No.SML/WO-CEMC/SSWCP/2022/08 Dated 29th July, 2022 to M/s Centre for Envotech and Management Consultancy Pvt. Ltd.

Response by PP dated 18.10.2022

Site Specific Wildlife Plan has been prepared by DFO, Keonjhar. DFO Keonjhar has been forwarded the file to RCCF, Rourkela on 13 October, 2022 and RCCF Rourkela has also forwarded the file to PCCF, Bhubaneswar for final approval of the same on 15th October, 2022. The forwarding letters are submitted.</td></tr>
</table>

9	**Stipulated General Condition No.vi:** Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.		
	Observation of Regional Office on report dated 20.06.2022	**Action Taken Report submitted By M/s Sree Metaliks Ltd Dt.21.07.2022**	**Comments By IRO Bhubaneswar dated 26.08.2022 / Response by PP dated 18.10.2022**
	The project authorities should install a Waste Water Treatment Plant and ensure that all the treated water should be recycled and reused.	Complied As indicate in S No -1,	Same as Sl. No.1. **Response by PP dated 18.10.2022:** At present, there is no process waste water generation. Water is mainly used for cooling purpose. For proper collection of Surface Run off, storm water drains have been already constructed and a settling cum harvesting pond is under construction in the NW direction of the project area. The construction work is in progress and shall be completed within the committed time i.e. before March 2023.
10	**Stipulated General condition No. xi:** As proposed, Rs. 1401.05 Lakhs and Rs. 753.64 Lakhs shall be earmarked towards total capital cost and recurring cost/annum for environmental pollution control measures shall be judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.		
	Observation of Regional Office on report dated 20.06.2022	**Action Taken Report submitted By M/s Sree Metaliks Ltd Dt.21.07.2022**	**Comments By IRO Bhubaneswar dated 26.08.2022 / Response by PP dated 18.10.2022**
	It has been submitted the project authorities that due to financial constraints the project, Integrated Steel Plant, could not be constructed and commissioned. Presently they are operating only the pelletisation plant. It was observed that pollution control equipment have been installed and is under regular maintenance for which funds has been earmarked in the annual budget. It was reported by the project authorities that an amount of 5 crore for Capital cost and 40 lakhs per annum has been spent under recurring cost for environmental pollution control measures.		PP informed that 'due to financial constraints the project integrated steel plant could not be constructed and commissioned'. At present only 0.6 MTPA pellet plant is in operation. Expenditure on environmental protection measure reported as Rs.5.00 crores for capital cost and Rs.40.00 lakhs per annum for recurring cost. It was also informed that in 2022-23 additional capital expenditure of around Rs.15 lakh have been planned in existing pellet plant in addition to recurring cost. **Response by PP dated 18.10.2022:** Complied
11	**Stipulated General Condition No. xvi:** The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.		
	Observation of Regional Office on report dated 20.06.2022	**Action Taken Report submitted By M/s Sree Metaliks Ltd Dt.21.07.2022**	**Comments By IRO Bhubaneswar dated 26.08.2022 / Response by PP dated 18.10.2022**
	The project authorities should sent url address of the website wherein the status of compliance	Complied The project has already the url address i.e.	Six monthly compliance for the period Oct., 2021 to March, 2022 has been uploaded in the website. The

	of the stipulated environment clearance conditions, including results of monitored data has been uploaded and updated to this office. The project authorities should also display the data on criteria pollutant levels namely; SPM, RSPM, S02, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project at convenient location near the main gate of the company in the public domain.	https://sreemetaliks.com, where compliance of the Environmental Clearance conditions and monitoring data are being uploaded. Towards display of the data on criteria pollutant levels namely; SPM, RSPM, S02, NOx (ambient levels as well as stack emissions), we have displayed it near the main gate which is being updated every month. The Electronic display board has been installed at the main gate.	monitoring data has also been uploaded as annexure-I in the website. Display board has been provided at the main gate of the company in public domain to display critical sectoral parameters. **Response by PP dated 18.10.2022:** Complied

15.4.19 The proposal was initially considered in the 12th meeting of the EAC for Industry-I sector held on 30-31st August, 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 30-31st August, 2022)

15.4.20 The Committee noted the following:

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

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

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

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

project has been implemented not less than fifty percentage in its physical form or construction."

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

4. To ascertain that more than 65% of construction work has been completed for the facilities proposed in the instant proposal, project proponent is required to submit financial statement in the form of CA certificate pertaining to construction activities undertaken. PP shall also submit in a tabular form, the project work undertaken related to the construction of facilities proposed in the instant proposal along with financial aspects.
5. The EAC deliberated on the greenbelt development and is of the view that since the EC was granted way back in 2009, PP should have developed greenbelt in 33% of the total project area. However, the same is not completed. In this regard, project proponent shall submit the details of existing greenbelt and the proposed greenbelt and also undertake to complete the greenbelt development in this monsoon of 2022.
6. Baitarani River, Malda River, Jagdhala Nala, Bamni Nalla, Chamda Nala and Kadal Nala exists within the study area. PP is required to submit the detailed management plan/conservation plan including technical and financial aspects to ensure that the water bodies will not be disturbed.
7. The project proponent is required to submit an undertaking for installation of CAAMQS by the end of December, 2022.
8. The EAC noted that project proponent has not reported Incremental GLC / AAQ modelling data for $PM_{2.5}$, SO_2, NOx and CO. The project proponent shall submit the same.
9. The Unit is to provide Action Plan to monitor coke/coal dust exposures in different process plants using personal and area air samplers and to compare with permissible limits as per Indian Factories Act, 1948.
10. Project Proponent has submitted Traffic assessment study findings for the existing scenario. It is required to submit the traffic data in post project scenario along with LOS details.

Recommendations of the Committee (EAC during 30-31st August, 2022)

15.4.21 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** due to certain deficiencies in the proposal and sought requisite information on the points referred at para no. 15.4.20 above. The proposal shall be considered after submission of requisite information in next EAC meeting.

15.4.22 The proponent submitted the ADS reply vide letter dated 22nd September 2022 uploaded on PARIVESH on 24th September 2022. Point-wise reply of ADS is given as below.

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

   Reply: Based on the ATR Submitted on 21.07.2022, Dr. T.H. Mahato, Scientist 'D', IRO, MOEF&CC, Bhubaneswar visited the site on 03.08.2022 and issued the closure report in continuation to the partially complied conditions of earlier EC. The report of the IRO, Bhubaneswar issued vide letter no. 101-521/EPE/2078 dated 26.08.2022 is submitted. The same is incorporated at para 15.4.18 above.

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

   Reply: The Site Specific Wildlife Conservation Plan has been prepared and submitted to the office of DFO, Keonjhar division of Forest Department of Odisha. The letter alongwith the submitted copy of Conservation Plan is submitted.

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

   The EAC made a note that in case more than 65% of construction work has been completed, Public Consultations may not be required as per MoEF&CC Notification No. S.O. 1247(E), dated 18.03.2021. However, the Committee is of the opinion that M/s Sree Metaliks Limited shall submit compliance of the earlier public hearing issues and also submit action plan for non-complied issues raised during the Public hearing in conformity to MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30.09.2020.

   Reply: Expenditure incurred on earlier PH Issues is submitted. The same is incorporated at para 15.4.14 above.

4. ***To ascertain that more than 65% of construction work has been completed for the facilities proposed in the instant proposal, project proponent is required to submit financial statement in the form of CA Certificate pertaining to construction activities***

undertaken. PP shall also submit in a tabular form, the project work undertaken related to construction of facilities proposed in the instant proposal along with financial aspects.

Reply:

I. 1.2 MTPA PELLETIZATION COMPLEX

A. Amount Spent

Plant Facilities	S. No.	Particulars	Amount Spent (in Cr)
Common Facilities (1.2 MTPA)	1	Iron Ore Stock yard & Ground Hopper Module	6.00
	2	Ball mills(150 TPH- 2 Nos) & Stack Sizer for Iron ore fines Grinding	9.00
	3	Thickener	5.00
	4	Filteration Module(Press Filter, Agitators, Pumps)	18.00
	5	Proportionate system Module (Bins for Iron Ore concentrate, Bentonite, Fluxes with overhead reversible conveyor & Pneumatic conveyoing system, weigh feeders, loss in weighfeeders)	9.00
	6	Electrical & Instrumentation system (Including Master Control room)	15.00
	7	Fuel System module (Oil storage tanks, heating, filteration & pumping system & PGP)	12.00
	8	Finished product storage Module (screen, Conveyor and bins with reversible conveyor)	6.00
	9	Utilities (compressors, cooling tower, pump house and water pump)	8.00
		Total - A	**88.00**
	1	Land & Others	12.00
	2	Finance Cost	48.96
	3	Other expenses (including consultancy charges)	5.41
		Total - B	**66.37**
Existing Running: Agglomeration Unit (0.6 MTPA)	1	Mixing system (Civil, structural equipment)	2.00
	2	Balling system (Civil, structural equipment)	7.50
	3	Indurations system (Civil, structural equipment)	14.00
	4	Rotary Klin & Cooler System (Civil, structural equipment)	12.50
	5	HR Fan, ID fans & multi Cyclone system (Civil, structural equipment)	4.00
		Total - C	**40.00**
Incomplete: Agglomeration Unit (0.6 MTPA)	1	Balling system (equipment etc.)	3.00
	2	Indurations system (equipment etc.)	8.50
	3	Rotary Klin & Cooler System (equipment etc.)	6.50
	4	Structural Steel (equipment etc.)	5.50
		Total - D	**23.50**
Total Amount Spent (A+B+C+D)			**217.87**

B. Expected amount to be spent for Incomplete Agglomeration Unit (0.6 MTPA)

1	Mixing system (Civil, structural equipment)	3.00
2	HR Fan, ID fans & multi Cyclone system (Civil, structural equipment)	5.50
3	Burner System	1.00
4	Civil, structural and E&I	6.00
5	Others	1.99
	Total	**17.49**

- Total Expected Expenditure = Rs 235.36 Cr.
  (1.2 MTPA Pelletisation Complex)
- Original Estimate = Rs 219.71 Cr.

II. 1.0 MTPA BENEFICIATION COMPLEX

A. Amount Spent

S. No.	Particulars	Amount Spent (In Cr.)
1	Iron Ore Stock yard & Ground Hopper, screen building (With Civil, structural, equipment, E&I)	2.38
2	All Jig Building (With Civil, structural, equipment, E&I)	4.46
3	All Flux Building (With Civil, structural, equipment, E&I)	5.43
4	WHIMS Building (With Civil, structural, equipment, E&I)	13.63
5	Slurry Pumps	1.06
6	Concentrate thickener, Tailing & Intermediate thickener (In Complete)	3.00
	Total-(a)	**29.96**
1	Land & Others	2.51
2	Finance Cost	7.69
	Total-(b)	**10.20**
	Amount Spent Total (a+b)	**40.16**

B. Expected amount to be spent for Incomplete Beneficiation Unit (1.0 MTPA)

Sl. No.	Particulars	Amount Spent (In Cr.)
1	All Thickeners	4.00
2	Ball mill, Stack Sizer and Hydro Cyclones	4.98
3	Others	1.50
	Total	**10.48**

- Total Expected Expenditure = Rs 50.64 Cr.
  (1.0 MTPA Beneficiation Complex)
- Original Estimate = Rs 41.28 Cr.

To ascertain the value of Capital Work in Progress as on 31.03.2013, project proponent has submitted financial statement in the form of CA Certificate from M/s. PACS & Company

vide letter dated 29.08.2022 certifying that total of Rs. 258.03 crores has been spent on Beneficiation Project (ANRA unit) and Pelletisation Project (Anra).

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

Reply: The total project is spread over an area of 48.56 ha (120 Acres), out of which the green belt area earmarked is over 16.18 ha (40 Acre). The existing green belt is developed over 9.92 ha (24.5 Acre) and the balance area to be developed under green belt is 6.26 ha (15.5 Acre). PP has also submitted an undertaking vide letter dated 15.09.2022 to complete the greenbelt development by end of this monsoon. The greenbelt development programme is under continuation and shall be completed within the stipulated time.

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

Reply: A detailed technical report "Management Plan of Riverine Ecosystem within 10 km" of the plant of M/s Sree Metalliks Limited at Anra village is prepared to conserve the water bodies and to ensure that the water bodies will not be disturbed due to the existing as well as expansion proposal.
The location of nalas from the Proposed plant area is as follows:

- Baitarani river - 6.14 km (NW Direction)
- Bamuni nala – 50 m (flowing adjacent to plant boundary)
- Jagadala nala – 5.45 km (NE Direction)
- Chemda nala – 6.83 km (S Direction)
- Kadal nala – 7.08 km (ENE Direction)
- Patarpagi nala – 0.59 km (SSE Direction) joins Bamuni nala (tributary)
- Malda river – 9.14 km (NW)

Since all the following streams, except Bamuni nala are far away from the proposed project, it is unlikely to have any project related impact on the eco system of the water bodies.

Bamuni nala which is flowing adjacent to the boundary for proposed plant needs proper attention and requires a detail study on any possible adverse impact of project and further requires a proper management/treatment plan to mitigate the adversity if any.

A detail hydrology study of a Bamuni nala catchment has been made with maximum flood computation and a preventive measure of construction of earthen embankment of 2m high in the bank of Bamuni Nallah has been proposed to prevent flood water entry into the plant lease area .

100 year chance flood for Bamuni nala is computed as 249 cumecs. With the existing natural regime section of the river the depth of flow is likely comes to 3.2m. The HFL of river with 100 year chance flood computed to be 526.5.

Since the plant lease area level is above 530m there is no likelihood of entry of flood water into the plant premises.

Proposed Mitigating Measures for Core Zone.

The project authority has proposed to construct the 2m high embankment near the plant lease area. As well as along the boundary of plant area to arrest storm water. Vertiver grass will be planted beyond the dam to restrict soil erosion. An estimated amount of Rs 30,00,000.00 (Rupees Thirty Lakh) will be spent by the Project Proponent for the purpose.

The plant is designed with zero discharge and there will not be any waste water flowing outside to pollute any water body.

The storm water from the plant lease area shall be taken by planned/designated drainage network to settling tank as such no sediment will be allowed to flow outside of the plant.
A reservoir in NW corner of project area will be constructed in 1.0 Ha Area (2.5 Acre) to hold rain / storm water for 24 Hrs. with an estimated cost of Rs 18.49 Lakh to enable settlement of sediments.

Proposed Mitigating Measures For preservation of Riverine Ecosystem

1. The Project Proponent ensures zero waste water discharge from the plant to pollute to nullify any plant related water pollution.
2. The PP shall construct an embankment of adequate height so that under no circumstances flood water enter and carry debris/waste from the plant.
3. The Plant Storm water is proposed to pass through settling tank before being discharged outside to ensure no sediments is being carried out.
4. A detailed catchment treatment plan is proposed for the Bamuni nala catchment, in which the project is located, with the following measures.
    - Normal Afforestation
    - Enrichment Plantation
    - Pasture Reclamation
    - Soil Conservation Measures such as Check Dam, Contour bunding etc.

A financial provision of 48.49 Lakhs has been earmarked for construction of embankment and settling tank within the plant premises. The detailed technical report on the above subject is submitted.

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

Reply: The project proponent has submitted an undertaking vide letter dated 15.09.2022 for installation of CAAQMS by the end of December, 2022.

8. ***<u>The EAC noted that project proponent has not reported Incremental GLC/AAQ modelling data for PM2.5, SO2, NOx and CO. The project proponent shall submit the same.</u>***

Reply: The same has been incorporated in Chapter 4 of EIA/EMP Report. However, the details are as follows.

Assessment Air Quality due to Stationary Source Emissions: Air Quality Modeling for Stationary Source Emission:

The impacts of primary air pollutants on air quality due to emission from single source or a group of sources is evaluated by use of mathematical models. The Industrial Source Complex- Short Term Version 3 (ISCST-3) is the state of the art model with USEPA, which is extensively used for predicting ground level concentration (GLC) of conservative pollutants from plant area and volume sources. The impacts of conservative pollutants were predicted using this air quality model keeping in view the plain terrain at and around the ground site. ISCST-3 is an hour-by-hour steady state Gaussian Model. Prediction of ground level concentrations (GLC's) due to existing plant has been made by Industrial Source Complex, Short Term (ISCST3) as per CPCB guidelines. ISCST3 is US-EPA approved model to predict the air quality. The model uses rural dispersion and regulatory defaults options as per guidelines on air quality models. The model assumes receptors on flat terrain.

The details of stacks and stack emissions for proposed plant are given in following table.

Table No. 1: Model Input: Source and Emission data

Stack No.	Description of Stack	Height from GL(M)	Fuel gas temperature (Deg C)	Stack Dia in Mtr	Gas Volume (CuM/Hr)	Velocity (m/s)	Emission Rate (g/sec)			
							PM_{10}	$PM_{2.5}$	SO_2	NOx
Existing										
1	Pellet Plant	50	120	2.5	500000	37.4	4.14	1.57	--	
Proposed										
2	Pellet Plant	50	120	2.5	500000	37.4	4.14	1.57	--	

Simulation model for prediction of ground level concentrations due to stack emissions:

The following options were considered while modelling to predict the incremental ground level concentrations of pollutants due to emissions from the proposed units. The GLCs due to emissions from the existing units are reflected in the ambient air quality monitoring.

- The stack and emission details for proposed unit have been adopted from Table No. C4-2.
- The prediction has been done to estimate concentration value over a radial distance of

10 km from the source.

- Combination of Cartesian and polar receptor network has been considered.
- Emission rate was considered constant throughout the averaging period.
- Ground level concentrations were computed without any decay co-efficient.
- The micro-meteorological observations made during the study period have been taken as input meteorological data. Calm wind conditions recorded during study period were also considered.

Products to be transported from factory Site to the Railway siding:

Raw Materials: **735850.5 T**

Additional quantity of raw materials to be transported in addition to existing works out to **735850.5T/Annum**
Amount of raw materials to be transported per day 735850.5/300=2453 T/day
Taking Truck capacity as 22 T
No of Trucks to be engaged for transportation of raw materials= 2453/22=111.5 that is **111.5** Trucks per day
Calculated on hourly basis 112/8=14 trucks per hour

Line Source Modeling Input:

Where E = Emission Rate in g/sec/meter.	
m = Moisture Content of Road Dust in %.	15
s = Silt Content of road dust in %.	8
u = wind speed in m/sec.	3.67
v = Average Vehicle Speed in m/sec.	12
f = frequency of vehicle movement in no. per hour	14
c = capacity of tippers in ton.	22
Length of road	5 km
Width of Road	8 m

Resultant GLC

The predicted ground level concentration obtained when superimposed on base line concentration. Isopleths of PM10, SO_2, NO_x,, CO concentration for both Point & Line Sources are shown in **Table No. - C4-2 to C4-4** and in **Fig. No. C4-1 to C4-6**

Table No. 2: Impact Due to Incremental and Ambient Concentration (µG/M^3) in Point Source

Pollutant	Sampling Station	P_{98} Baseline µg/m^3(A)	Incremental Value, µg/m^3 (B)	GLC, µg/m^3 (A + B)
PM_{10}	A1	80.5	0.0005	80.5005
	A2	76.4	1.1016	77.5016
	A3	70.3	1.0961	71.3961
	A4	70.1	0.1137	70.2137
	A5	65.3	0.4065	65.7065

Pollutant	Sampling Station	P_{98} Baseline µg/m³(A)	Incremental Value, µg/m³ (B)	GLC, µg/m³ (A + B)
	A6	60.0	1.7314	61.7314
	A7	57.7	0.2620	57.962
	A8	55.8	1.1307	56.9307
	A9	65.7	0.1735	65.8735
	A10	55.1	0.9568	56.0568
$PM_{2.5}$	A1	39.0	0.0002	39.0002
	A2	35.4	0.4178	35.8178
	A3	29.8	0.4157	30.2157
	A4	30.0	0.0431	30.0431
	A5	29.8	0.1542	29.9542
	A6	29.8	0.6566	30.4566
	A7	29.8	0.0994	29.8994
	A8	25.9	0.4288	26.3288
	A9	29.0	0.0658	29.0658
	A10	25.2	0.3629	25.5629

Table No. 3: Impact Due to Incremental and Ambient Concentration (µG/M³) in Line Source

Pollutant	Sampling Station	P_{98} Baseline µg/m³(A)	Incremental Value, µg/m³ (B)	GLC, µg/m³ (A + B)
PM_{10}	A1	80.5	0.05700	80.55701
	A2	76.4	0.03196	76.43196
	A3	70.3	0.02178	70.32178
	A4	70.1	0.00308	70.10308
	A5	65.3	0.01613	65.31613
	A6	60.0	0.07045	60.07045
	A7	57.7	0.01092	57.71092
	A8	55.8	0.00475	55.80475
	A9	65.7	0.04679	65.74679
	A10	55.1	0.02186	55.12186
$PM_{2.5}$	A1	39.0	0.02220	39.0222
	A2	35.4	0.01245	35.41245
	A3	29.8	0.00848	29.80848
	A4	30.0	0.00120	30.0012
	A5	29.8	0.00628	29.80628
	A6	29.8	0.02744	29.82744
	A7	29.8	0.00425	29.80425
	A8	25.9	0.00185	25.90185
	A9	29.0	0.01822	29.01822
	A10	25.2	0.00851	25.20851
SO_2	A1	24.9	0.89029	25.79029
	A2	15.2	0.49911	15.69911
	A3	15.4	0.34019	15.74019
	A4	16.2	0.04803	16.24803

Pollutant	Sampling Station	P_{98} Baseline µg/m³(A)	Incremental Value, µg/m³ (B)	GLC, µg/m³ (A + B)
	A5	15.7	0.25196	15.95196
	A6	9.5	1.10036	10.60036
	A7	8.1	0.17050	8.2705
	A8	8.7	0.07425	8.77425
	A9	15.5	0.73078	16.23078
	A10	9.1	0.34139	9.44139
NO_X	A1	29.2	1.17155	30.37155
	A2	19.3	0.65680	19.9568
	A3	19.5	0.44767	19.94767
	A4	20.0	0.06321	20.06321
	A5	18.9	0.33156	19.23156
	A6	16.5	1.44799	17.94799
	A7	16.1	0.22436	16.32436
	A8	15.0	0.09771	15.09771
	A9	19.3	0.96165	20.26165
	A10	15.3	0.44925	15.74925

Table No. 4: Impact Due to Incremental and Ambient Concentration (mg/m³) in Line Source

Pollutant	Sampling Station	P_{98} Baseline mg/m³(A)	Incremental Value, mg/m³ (B)	GLC, mg/m³ (A + B)
CO	A1	0.5	0.00056	0.50056
	A2	0.3	0.00031	0.30031
	A3	0.28	0.00021	0.28021
	A4	0.3	0.00003	0.30003
	A5	0.3	0.00016	0.30016
	A6	<0.1	0.00069	--
	A7	<0.1	0.00011	--
	A8	<0.1	0.00005	--
	A9	0.31	0.00046	0.31046
	A10	<0.1	0.00021	--

The results of the modelling study is indicates that the maximum increase of GLC for the proposed project is 80.56 µg/m³ with respect to the PM_{10}, 39.98 µg/m³ with respect to the $PM_{2.5}$, 25.79 µg/m³ with respect to the SO_2 and 30.71 µg/m³ with respect to the NOx, 0.50 mg/m³ with respect to the CO which is minimal. The GLC predicted at all receptor locations are well within the PM_{10}, SO_2 NOx and CO limit prescribed in NAAQS. (Standards for PM_{10} are 100 µg/m³, SO_2 is 80 µg/m³,NO_2 is 80 µg/m³ and CO is 4 mg/m³ as per CPCB).

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

Reply: The unit has planned for monitoring of environmental parameters like dust and gaseous emission through area samplers like Respirable Dust Sampler as per the CPCB Guideline i.e. weekly twice each station shall be monitored within the plant premises. However, persons working in the dust prone area like raw material handling area, coal/coke storage and handling area shall be monitored using Personal Dust sampler, quarterly once and shall be compared with the permissible limits. In addition to this, free silica shall be analysed using the services of CIMFR, Dhanbad to assess the percentage of free silica in the dust so that proper mitigation measures and rotation of work force depending on the outcome of monitoring results and periodical health check-up shall be carried out. The monitored results shall be submitted to Concerned State Pollution Control Board and IRO, MOEF&CC as part of the compliance of monitoring data. Every steps shall be taken and EMC shall closely monitor the situation and shall report to the Plant Head and adopt mitigative measures to bring the pollution under control in case any reported value crosses the limit. The frequency of monitoring shall be as follows.

Particulars	No. of Samples	Frequency	Parameters to be monitored
Ambient Air Quality	4 (within plant premises)	Weekly twice regularly	Dust (PM_{10}, $PM_{2.5}$) & Gaseous Pollutants
Personal Dust Sampling	30 Workers (Representative sample of 5 Nos.)	Quarterly	Dust & Free Silica

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

Monitoring Locations

A traffic volume survey was conducted at Raigurha Road passing through west direction at around 1.0 km w.r.t the proposed project site.

Methodology

Traffic count were recorded once for a day in the month of Apr, 2022, for continuous 24 hours in a day by visual observation and counting of vehicles under four categories, viz., heavy motor vehicles, light motor vehicles, two/three wheelers, cycles and others. At the end of each hour, fresh counting and recording was undertaken. Thus, total numbers of vehicles per hour under the different categories were determined.

Amount of Raw Material to be Transported

Sl No.	Raw material	Existing Quantity (T/Yr)	Proposed Quantity (T/Yr)	Total
1	Iron Ore Fines	6,00,000	7,00,000	13,00,000

2	Bentonite	6531.5	6531.5	13063
3	Lime Stone/ Dolomite	6531.5	6531.5	13063
4	Coke	1787.5	1787.5	3575
5	Coal	21,000	21,000	42,000
6	**Total**	**635850.5**	**735850.5**	**1371701**

EXISTING TRAFFIC DENSITY ON RAIGURHA ROAD

Traffic vehicle	**No. of vehicles per day**	**Factor#**	**Equivalent Passenger Car Unit**
H.M.V.	524	3.0	1572
L.M.V.	672	1.0	672
Two wheelers	1032	0.5	516
Cycles	312	0.5	156
Grand Total	**2,540**		**2916**

EXISTING TRAFFIC SCENARIO & LOS

Sl. No.	***Road***	***V (Volume in PCU/day)***	***C (Capacity in PCU/day. as per IRC: 64-1990)***	**Existing V/C Ratio**	**LOS**
1	RAIGURHA ROAD	**2916**	15000*	0.19	A

Raw Materials: **735850.5 T**

Additional quantity of raw materials to be transported in addition to existing works out to **735850.5T/Annum**
Amount of raw materials to be transported per day 735850.5/300=2453 T/day
Taking Truck capacity as 22 T
No of Trucks to be engaged for transportation of raw materials= 2453/22=111.5 that is **111.5** Trucks per day

Proposed Traffic Density on Raigurha Road

Traffic vehicle	**No. of vehicles per day**	**Factor#**	**Equivalent Passenger Car Unit**
H.M.V.	223	3.0	669
L.M.V.	20	1.0	20
Two/three wheelers	100	0.5	50
Cycles	50	0.5	25
Grand Total	**393**		**764**

PROPOSED TRAFFIC SCENARIO & LOS

S. No.	***Road***	***V (Volume in PCU/day)***	***C (Capacity in PCU/day as per IRC: 106-1990)***	**Existing V/C Ratio**	**LOS**
1	RAIGURHA ROAD	764	15000*	0.05	A

Total Traffic Density on Raigurha Road = Existing + Proposed

= 2916+764

= 3680

V (Volume in PCU/day) =3680
C (Capacity in PCU/day. as per IRC: 64-1990) = 15000*
Existing V/C Ratio =3680/15000=0.24 **(Very Good-B)**

As per IRC: 64-1990 code LOS & performance relation is

V/C	LOS (Level of Service)	Performance
0.0 - 0.2	A	Excellent
0.2 - 0.4	B	Very Good
0.4 - 0.6	C	Good
0.6 - 0.8	D	Poor
0.8 - 1.0	E	Very Poor
Note : Heavy: Truck, Bus, Cranes, **Medium:** Minibus, Matador, **Light:** Car, Jeep, Auto Rickshaw, Trekker		

The LOS value is "B" for Raigurha Road.

As per the arrangement of the local villagers who have given their land for the project, the trucks owned by them are only to be engaged firstly. If there is any additional demand then trucks from nearby association may be taken.
More than 80% of the transportation will be carried out in the same trucks of the villagers which will bring Iron Ore from nearby mines.
To minimise the number of trucks, the trucks which bring Iron Ore normally takes back pellets to nearby railway siding (for outside despatch) and to local DRI/BF customers. Thereby 80-90% of incoming truck traffic taken care of product despatches.
Further long term contact are being processed with OMC, Gandhamardan mine to bring 1 M.T.P.A. Iron Ore by long distance conveyer system (around 8 km long OMC Mine to SML, Arna Plant.

15.4.23 Based on the above information, the proposal is considered in the 15th meeting of the EAC for Industry-I sector held on 17-18th October, 2022. The deliberations and recommendations made by the EAC are as follows:

Written representations:

15.4.24 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 17.10.2022/18.10.2022 through email dated 17.10.2022/18.10.2022 submitted the following information:

S. No.	Details Sought by EAC	Reply
1.	Site Specific Wildlife Conservation Plan	Proposal in relation to Site Specific Wildlife Conservation Plan of Anra Unit forwarded by DFO, Keonjhar vide letter Memo No. 7843/6F-Mining dated 13.10.2022 to RCCF, Rourkela and copy to PCCF, Bhubaneswar vide letter Memo No. 7844 dated 13.10.2022. The same is updated at para 15.4.12 above.

S. No.	Details Sought by EAC	Reply
2.	Status of installation of CAAMQS and commitment for installation by November, 2022	PP has already placed the order on 15.07.2022 for installation of Continuous Ambient Air Quality Monitoring System (CAAQMS). PP assures that by November, 2022, they will install the CAAQMS in their plant. An undertaking vide letter dated 18.10.2022 is submitted.
3.	Table of Certified compliance report with updates on partially complied conditions	Details point wise commitment on partially complied conditions of Certified Compliance report is submitted. The same is updated at para 15.4.18 above.
4.	Commitment for providing water through proper water supply system to the locals in place of water tankers	Drinking water is already provided to Anra & Raigoda villages through tap facility by setting Overhead tank & Borewell. However, PP has submitted an undertaking dated 18.10.2022 in this regard to continue the facility provided to the nearby villages.

Deliberations by the Committee

15.4.25 The Committee noted the following:

1. The instant proposal is for expansion of Proposed Iron Ore Pelletization Plant from 0.6 MTPA to 1.2 MTPA and 1.0 MTPA Iron Beneficiation Plant.
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. The total project area is 48.56 ha (Private & Gov. Land) which is under possession of the company.

6. The EAC noted that Public Consultation is not required as per MoEF&CC Notification No. S.O. 1247(E), dated 18.03.2021, because PP has completed more than 65% of construction work. The Committee also deliberated on the expenditure made on the issues raised during earlier public hearing dated 20.02.2009 by the project proponent and found it satisfactory.

7. To ascertain that more than 65% of construction work has been completed for the facilities proposed in the instant proposal and value of Capital Work in Progress as on 31.03.2013, project proponent has submitted financial statement in the form of CA Certificate from M/s. PACS & Company vide letter dated 29.08.2022 certifying that total of Rs. 258.03 crores has been spent on Beneficiation Project (ANRA unit) and Palletisation Project (Anra).

8. The total water requirement is estimated to be 569 m^3/day which will be sourced from Ground Water.

9. Baitarani River, Malda River, Jagdhala Nala, Bamni Nalla, Chamda Nala and Kadal Nala exists within the study area. The water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.

10. The EAC observed that Schedule-I species i.e. Elephant is recorded in the buffer zone of plant area. The Site Specific Wildlife Conservation Plan has been prepared and submitted to the office of DFO, Keonjhar division of Forest Department of Odisha.

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

12. The EAC noted that green belt area is earmarked over 16.18 ha (40 Acre). The existing green belt is developed over 9.92 ha (24.5 Acre) and the balance area to be developed under green belt is 6.26 ha (15.5 Acre). PP has also submitted an undertaking vide letter dated 15.09.2022 to complete the greenbelt development by end of this monsoon @ 2500 trees per hectare. The Committee deliberated on the action plan and budget allocation for green belt development and found satisfactory.

13. The Committee deliberated upon the certified compliance report of IRO MoEF&CC as well as action taken report submitted by PP along-with review report of IRO / Response of PP and is of the opinion that PP shall strictly comply with all the observations made by IRO in a time bound manner.

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 project proponent has submitted an undertaking vide letter dated 18.10.2022 for installation of CAAQMS by the end of November, 2022.

16. The project proponent has submitted an undertaking vide letter dated 19.09.2022 for adoption of 5 villages namely Anra, Dudhpasi, Raigoda, Bheldih and Bininda for the socio-economic development.

17. PP has provided Action Plan to monitor coke/coal dust exposure in different process plants using personal and area air samplers and to compare with permissible limits as per Indian Factories Act, 1948.

18. The EAC also deliberated on the ADS reply submitted by the PP and found it satisfactory.

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

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

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

Recommendations of the Committee:

15.4.26 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. <u>Specific Conditions</u>

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

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

iii. PP shall strictly comply with all the observations made by IRO with respect to compliance to previous EC conditions in a time bound manner.

iv. Tailings from Iron Ore beneficiation plant shall be dewatered in filter press and no slime /tailing pond shall be permitted.

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

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

vii. Total water requirement of 569 m^3/day shall be met from ground water. PP shall explore the possibility to shift to alternative source of water so as to reduce dependence on ground water.

viii. Baitarani River, Malda River, Jagdhala Nala, Bamni Nalla, Chamda Nala and Kadal Nala exists within the study area. As per the submission, PP shall implement the management plan/conservation plan to ensure that water bodies are not disturbed.

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

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

xi. As committed to adopt 5 villages, namely Anra, Dudhpasi, Raigoda, Bheldih and Bininda, Project Proponent shall prepare and implement a robust plan to develop them into model villages in next 10 years.

xii. Three tier Green Belt shall be developed in at least 33% of the project area by end of this monsoon 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.

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

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

xv. PP shall strictly implement action plan to monitor coke/coal dust exposure in different process plants using personal and area air samplers and to compare with permissible limits as per Indian Factories Act, 1948. The coal dust to be measured at coal handling areas, should be within 2 mg/m^3, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.

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

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

xviii. 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.

xix. Action Plan to monitor coke/coal dust exposures in different process plants using personal and area air samplers and to compare with permissible limits as per Indian Factories Act, 1948 shall be implemented.

xx. All the commitments made to the public during the earlier Public Hearing/Public Consultation dated 20.02.2009 shall be satisfactorily implemented. The action plan based

on the social impact assessment study of the project shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

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

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 at process stacks to monitor stack emission as well as 04 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

iii. 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. 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.
v. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.
vi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

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 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 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. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
v. Tyre washing facilities shall be provided at the entrance of the plant gates.
vi. Water meters shall be provided at the inlet to all unit processes in the steel plants.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.
ii. Provide LED lights in their offices and residential areas.

VI. Waste management

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

ii. 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.

VII. Green Belt

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

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

VIII. Public hearing and Human health issues

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

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

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

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.

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

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

X. Miscellaneous

i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by

prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

***

Consideration of TOR Proposal

Agenda No. 15.5

15.5 Green field project of 96,000 TPA capacity of High Carbon Ferrochrome manufacturing unit by M/s Indian Metals & Ferro Alloys Limited, located at Kalinga Nagar Industrial Complex, Jajpur Road, Jaipur, Odisha – Consideration of TOR.

[Proposal No. IA/OR/IND/284053/2022; File No. IA-J-11011/273/2022-IA-II(IND-I)] [Consultant: M/s Global Tech Enviro Expert Pvt. Ltd.; Valid upto 06.11.2023]

15.5.1 M/s. Indian Metals & Ferro Alloys Limited has made an application online vide proposal No. IA/OR/IND/284053/2022 dated 30.09.2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No.3(a) Metallurgical Industries (Ferrous and Non/ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

15.5.2 Name of the EIA consultant: M/s GLOBALTECH Enviro Experts Pvt. Ltd. [S. No. 104, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/IA0066 valid till 06.11.2023; Rev. 25, Sept 05, 2022].

Details submitted by Project proponent

15.5.3 The project of M/s. Indian Metals & Ferro Alloys Limited located in Kacherigaon Village, Danagadi Tehsil, Jajpur District, Odisha is for setting up of a green field project for production of 96000 Tons Per Annum (TPA) High Carbon Ferrochrome & 10 MW Power generation from furnace off gas.

15.5.4 Environmental site settings:

S. No.	Particulars	Details
i.	Total land	50.29 ha [Private: 7.46 ha; Govt:42.83 ha]
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	This land is acquired by IDCO which is govt. entity & allotted to IMFA as per the letter No. HO/P& A/LA-E-7807/19 6037 dated 25.03.2022.

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>There is unauthorized encroachment inside allotted 50.29ha of land and IDCO has already initiated the process of evacuation. R&R will not arise.</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all the corners of project site.</td><td>
<table>
<tr><th>Points</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1</td><td>20°56' 14.3532"N</td><td>86°3' 17.2468"E</td></tr>
<tr><td>2</td><td>20°55' 57.3691"N</td><td>86°2' 50.4219"E</td></tr>
<tr><td>3</td><td>20°55' 57.3485"N</td><td>86°2' 45.4216"E</td></tr>
<tr><td>4</td><td>20°55' 56.9139"N</td><td>86°2' 45.3758"E</td></tr>
<tr><td>5</td><td>20°55' 56.7739"N</td><td>86°2' 45.0406"E</td></tr>
<tr><td>6</td><td>20°55' 55.8428"N</td><td>86°2' 44.5645"E</td></tr>
<tr><td>7</td><td>20°55' 55.9031"N</td><td>86°2' 43.0567"E</td></tr>
<tr><td>8</td><td>20°55' 55.7652"N</td><td>86°2' 41.6908"E</td></tr>
<tr><td>9</td><td>20°55' 55.3973"N</td><td>86°2' 40.849"E</td></tr>
<tr><td>10</td><td>20°55' 55.4934"N</td><td>86°2' 40.5465"E</td></tr>
<tr><td>11</td><td>20°55' 55.5481"N</td><td>86°2' 40.1743"E</td></tr>
<tr><td>12</td><td>20°55' 55.3801"N</td><td>86°2' 40.3755"E</td></tr>
<tr><td>13</td><td>20°55' 54.8598"N</td><td>86°2' 39.787"E</td></tr>
<tr><td>14</td><td>20°55' 53.4876"N</td><td>86°2' 38.4007"E</td></tr>
<tr><td>15</td><td>20°55' 53.8318"N</td><td>86°2' 37.3939"E</td></tr>
<tr><td>16</td><td>20°56' 2.7762"N</td><td>86°2' 33.263"E</td></tr>
<tr><td>17</td><td>20°56' 5.2905"N</td><td>86°2' 37.3199"E</td></tr>
<tr><td>18</td><td>20°56' 5.6856"N</td><td>86°2' 37.5384"E</td></tr>
<tr><td>19</td><td>20°56' 5.9178"N</td><td>86°2' 37.5458"E</td></tr>
<tr><td>20</td><td>20°56' 6.1288"N</td><td>86°2' 37.6551"E</td></tr>
<tr><td>21</td><td>20°56' 6.0002"N</td><td>86°2' 38.465"E</td></tr>
<tr><td>22</td><td>20°56' 25.6203"N</td><td>86°3' 10.1408"E</td></tr>
</table>
</td></tr>
<tr><td>v.</td><td>Elevation of the Project site</td><td>36.25 to 51.25 m above mean sea level.</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land, if any.</td><td>No forest land involved</td></tr>
<tr><td>vii.</td><td>Water body (Rivers,Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as studyarea</td><td><u>Project site:</u>
No water body exists within the plant site.

Study area
<table>
<tr><th>Water body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Brahmani River</td><td>5.5 km</td><td>South</td></tr>
</table>
</td></tr>
<tr><td>viii.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/tiger reserve/ elephant reserve</td><td>Nil

Details of Forests are as follows:
<table>
<tr><th>Forest</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>Barhashuli open Mixed Jungle</td><td>1.2</td><td>West</td></tr>
<tr><td>Sunajhara P.F</td><td>8.5</td><td>West</td></tr>
<tr><td>Scrub Forest</td><td>7.8</td><td>West</td></tr>
</table>
</td></tr>
</table>

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

Sl. No.	Facility	Configuration	Capacity
1	High Carbon Fe-Cr plant (Smelting Furnaces)	2x33 MVA	96,000 TPA High carbon Ferro Chrome
2	Briquetting Plant	-	2,05,440 TPA
3	CPP from furnace off gas	-	10 MW

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

Sl. No.	Raw Material	Quantity Required Per Annum	Source	Distance From Site (Kms)	Mode of Transport
1	Chrome ore	2,31,072 MT	Captive mines /OMC/TSML	30-40	Road
2	Anthracite	15,072 MT	Import	120	Road
3	Lam Coke	33,600 MT	Import	120	Road
4	Bauxite	960 MT	Chhattisgarh	450	Rail
5	Hydrated Lime	5,472 MT	Rajasthan	1380	Rail
6	Molasses	9,600 MT	Local Traders	Variable	Road
7	Quartzite	11,136 MT	Odisha/ Andhra Pradesh/Jharkhand	Variable	Road
8	HSD/LDO	1597 KL	IOCL/ HPCL	20-30	Road
9	Electrode Paste	1500 MT	Import	120	Road

15.5.7 The water requirement for the proposed project is estimated as 2250 m^3 /day & it will be obtained from the Brahmani River through IDCO Pipeline. Govt. of Odisha, Industries Dept. vide Lr. No. 5596/I dated 22.06.2022 have entrusted IDCO to provide water connection to IMFA at the earliest. IMFA has already submitted application for the connection.

15.5.8 Total power requirement for the Proposed project is estimated as 56 MW. Out of which 10 MW will be from own generation and balance power will be drawn from IMFA's Group Captive Generating Plant installed at Choudwar by availing intra state open access.

15.5.9 The capital cost of the project is Rs. 547.19 Crores and the capital cost for environmental protection measures is proposed as Rs. 65.00 Crores. The employment generation from the proposed project is 1500 (Construction Phase - 600, Operation Phase - 900).

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

15.5.11 Proposed Terms of Reference: [Baseline data collection period: **1st March 2022 to 31st May, 2022**]

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
A. Air				
a. Meteorological parameters	Temperature, Pressure, Relative Humidity, Wind Speed, Wind direction, Rainfall, Cloud Cover.	01 (Project Site)	Hourly	-
b. AAQ parameters	PM_{10}, $PM_{2.5}$, SO_2, NO_2 & CO	08	Twice a week (24 Hourly)	-
B. Noise	Equivalent Noise levels in Leq in dB (A)	08	Once in a season (Day & Night-time)	-
C. Water				
Surface water quality parameters	Parameters as per ISI-IS: 2296-1982 (For Surface water)	Surface Water - 06	Grab Sample Once in Baseline Period	-
Ground water quality parameters	Parameters as per IS 10500 - 2012(For Drinking Water)	Ground water - 06	Grab Sample Once in Baseline study Period	-
D. Land				
a. Soil quality	Parameters as per IS 2720/USDA	6	Once during Study period	-
b. Land use	Agriculture, Habitation, Industry, Stony waste/ Quarries, Forest area, Plantation/ Vegetation, Open scrub, Water bodies etc.	10 km radius StudyArea	Once during Study period	-
E. Biological				
a. Aquatic	Biodiversity i.e. Flora and faunastudies within the entire study area depending on Ecological receptorsin the study area.	10 km radius Study Area	Once in Baseline Period	-
b. Terrestrial				
F. Socio-economic parameters	Demographic study, Literacy rate, Occupational Health monitoring ofemployees, Employment pattern, Infrastructure and Awareness and opinion of the respondents.	10 km radius Study Area	Once in Baseline Period	-

Deliberation by the Committee

15.5.12 The Committee noted the following:

i. Total land area is 50.29 ha. The land is in industrial complex and has been allotted to M/s. IMFA for this green field project by IDCO Industries Department, Govt. of Odisha. The EAC noted that there is some unauthorized encroachment, which is to be cleared by IDCO Industries Department, Odisha. As reported by PP, the process of evacuation of encroachment has been initiated by IDCO.

ii. The EAC further noted that project proponent has not undertaken alternate site analysis before finalising the proposed project site which is prerequisite for a greenfield project as per the provisions entailed in Form-1 on PARIVESH. The EAC opined that the alternative site analysis is aimed to select the best site in terms of having least adverse social & environmental impacts due to the project apart from other parameters such as technical feasibility and economic & financially viability. Thus EAC advised PP/Consultant to undertake alternate site analysis and submit the revised application fulfilling all the criteria of the application in pursuance to the provisions of EIA Notification, 2006.

iii. Further, as per Ministry's O.M. vide F.No. 22-76/2014-IA-III dated 07.10.2014 which reads as *" While full acquisition of land may not be a prerequisite for the consideration of the case for EC, there should be some credible document to show the status of land acquisition w.r.t project site when the case is brought before the concerned EAC/SEAC for appraisal……"* Therefore in view of the same, credible document showing the status of land acquisition shall be required at the time of appraisal.

iv. **The EAC also warned the Consultant M/s Global Tech Enviro Expert Pvt. Ltd. for not guiding the project proponent properly with respect to fulfilling all the criteria at the time of preparation of application and submission of all the requisite documents at the time of appraisal of proposal.**

v. In view of above, the Project Proponent requested the EAC to allow to reappear after revision of the application.

Recommendations of the Committee

15.5.13 In view of the foregoing and after deliberations, the Committee recommended that proposal to be **returned in its present form** to address the shortcomings enumerated at para no. 15.5.12 above and submit the revised application as per the provisions of EIA Notification, 2006.

****

Agenda No. 15.6

15.6 Green filed Project comprising of establishment of DRI Kilns (Sponge iron – 7,00,000 TPA), Induction Furnace with LRF & CCM (Hot Billets / MS Billets / MS Slab – 6,72,000 TPA), Rolling Mill (TMT Bars, Structural Steel - Angle, Channels, Gutters, Coils, Flat Bars, Strips, MS Pipes, MS Tubes, Galvanized Pipes and angles (85 % Hot charging with Hot Billets and remaining 15% through RHF with LDO/Producer Gas as fuel – 7,00,000 TPA), Coal Gasifier for Rolling Mill (6,300 NM3 / Hr), (FeSi – 21,000 TPA / FeMn-75,600 TPA / SiMn-43,200 TPA / FeCr-45,000 TPA / Pig Iron – 75,600 TPA), WHRB based Power Plant – 60 MW, FBC based Power Plant - 20MW, Galvanizing Plant (1,00,000 TPA), Brick Manufacturing unit (70,000 Bricks/day) & Briquetting Plant (Briquettes – 300 Kg/Hr.) by M/s Bhagyalaxmi Metals Pvt. Ltd., located at Plot No: B- 1, Mul Growth

Center Mul Village & Tehsil, Chandrapur District, Maharashtra – Consideration of TOR.

[Proposal No. IA/MH/IND/290594/2022; File No. IA-J-11011/347/2022-IA-II(IND-I)]
[Consultant: Pioneer Enviro Laboratories And Consultants Pvt. Ltd.; valid upto 16.12.2022]

15.6.1 M/s. Bhagyalaxmi Metals Pvt. Ltd has made an application online vide proposal no. IA/MH/IND/290594/2022 dated 30th September 2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No.3(a) Metallurgical Industries (Ferrous and Non/ferrous) and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

15.6.2 Name of the EIA consultant: M/s. Pioneer Enviro Laboratories and Consultants Pvt. Ltd. [S. No. 141, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/1922/ SA0148 valid till 21.09.2022; Rev. 25, Sept 05, 2022].

Details submitted by Project proponent

15.6.3 The project of M/s. Bhagyalaxmi Metals Pvt. Ltd located at Plot No. B-1, Mul Growth Center, Mul Village & Taluka, Chandrapur District, Maharashtra is a greenfield project for establishment of DRI Kilns (Sponge iron – 7,00,000 TPA), Induction Furnace with LRF & CCM (Hot Billets / MS Billets / MS Slab – 6,72,000 TPA), Rolling Mill (TMT Bars, Structural Steel - Angle, Channels, Gutters, Coils, Flat Bars, Strips, MS Pipes, MS Tubes, Galvanized Pipes and angles (85 % Hot charging with Hot Billets and remaining 15% through RHF with LDO/Producer Gas as fuel – 7,00,000 TPA), Coal Gasifier for Rolling Mill (6,300 NM3 / Hr), (FeSi – 21,000 TPA / FeMn-75,600 TPA / SiMn-43,200 TPA / FeCr-45,000 TPA / Pig Iron – 75,600 TPA), WHRB based Power Plant – 60 MW, FBC based Power Plant - 20MW, Galvanizing Plant (1,00,000 TPA), Brick Manufacturing unit (70,000 Bricks/day) & Briquetting Plant (Briquettes – 300 Kg/Hr.).

15.6.4 Environmental site settings:

S.No.	Particulars	Details	Remarks
i.	Total Land	29.44 Ha. (72.74 Acres) (Govt. Land)	**Land Use:** Industrial land
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Total land identified for the proposed project is 29.44 Ha. (72.74 Acres) and has been allotted by Maharashtra Industrial Development Corporation (MIDC) vide no. MIDC/RON/Mul/B-1/4333/2010 dt. 13.09.2010 and subsequently the same land has been reallotted vide letter No. MIDC/RO(NAGPUR)/Mul/LMS-72/1691/2022 dt. 09/05/2022.	---
iii.	Existence of habitation &	Project site:	---

<table>
<tr><th>S.No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td>involvement of R & R, if any</td><td>No habitation exists in project site; Hence no R & R is involved.

<u>Study area:</u>
Nearest habitation: Maregaon Village – 0.8 Kms. (SW Direction)</td><td></td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site</td><td>Latitude and Longitude of the project site:
<table>
<tr><th>S.No.</th><th>Point</th><th>Coordinates</th></tr>
<tr><td>1.</td><td>Point # 1</td><td>20°5'30.08"N
79°42'53.91"E</td></tr>
<tr><td>2.</td><td>Point # 2</td><td>20°5'30.64"N
79°43'01.40"E</td></tr>
<tr><td>3.</td><td>Point # 3</td><td>20°5'30.36"N
79°43'10.56"E</td></tr>
<tr><td>4.</td><td>Point # 4</td><td>20°5'12.87"N
79°43'12.50"E</td></tr>
<tr><td>5.</td><td>Point # 5</td><td>20°5'11.21"N
79°42'51.96"E</td></tr>
<tr><td>6.</td><td>Point # 6</td><td>20°5'15.93"N
79°42'51.96"E</td></tr>
<tr><td>7.</td><td>Point # 7</td><td>20°5'15.93"N
79°42'56.13"E</td></tr>
<tr><td>8.</td><td>Point # 8</td><td>20°5'18.42"N
79°42'56.13"E</td></tr>
<tr><td>9.</td><td>Point # 9</td><td>20°5'18.70"N
79°42'53.07"E</td></tr>
</table></td><td>---</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>MSL of the Project area – 197 m to 203 m</td><td>---</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land, if any</td><td>No Forest land is involved in the project site.
Status of Stage I Forest Clearance:
Not applicable

<u>Forests within 10 Kms. radius</u>
Scrub Forest (Zudpi Jungle) exists adjacent to the project site (South direction)
Rajoli RF – Adjacent to the project site (NEE)
Mul RF - 6.6 kms (SSW)</td><td>---</td></tr>
<tr><td>vii.</td><td>Water body exists within the project site as well as study area</td><td><u>Project site:</u>
Nil

<u>Study area:</u>
<table>
<tr><th>Water Body</th><th>Distance & Direction</th></tr>
<tr><td>Human Nadi</td><td>2.5 kms (E)</td></tr>
<tr><td>Mul river</td><td>3.9 kms (S)</td></tr>
<tr><td>Saloli Nadi</td><td>2.7 kms (SSE)</td></tr>
</table></td><td>---</td></tr>
<tr><td>viii.</td><td>Existence of ESZ / ESA / National Park / Wildlife Sanctuary / Biosphere</td><td><table>
<tr><th>Name</th><th>Distance w.r.t project site</th></tr>
</table></td><td>• There are no notified National Park / Wild life</td></tr>
</table>

S.No.	Particulars	Details	Remarks
	Reserve / Tiger Reserve / Elephant Reserve etc. if any within the study area	Tadoba Andhari Tiger Reserve -**Boundary** : 17.0 Kms. Tadoba Andhari Tiger Reserve – **ESZ** : 4.8 Kms. Status of NBWL approval: ***Not applicable, as project site is outside the ESZ of Tadoba Andhari Tiger Reserve (which is notified by MoEF&CC vide dt. 11.09.2019)***	sanctuary / Biosphere reserve / Elephant corridor within 10 Km. radius of the project site. • Tadoba – Andhari Tiger Reserve boundary starting point is at a distance of 17.0 kms. and beyond from the project site and whereas ESZ is at distance of 4.8 Kms. from the project site. • GO has been issued by MoEF&CC vide dt. 11.09.2019 notifying Tadoba – Andhari Tiger Reserve. • Preparation of Conservation plan & PCCF approval for the same and to be incorporated in EIA report.

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

S.No.	Unit (Product)	Configuration	Capacity
1.	DRI Kilns (Sponge Iron)	4 x 500 TPD	7,00,000 TPA
2.	Induction Furnaces (Hot Billets / MS Billets / MS Slab)	4 x 40 T	6,72,000 TPA
3.	Rolling Mills (TMT Bars, Structural Steel - Angle, Channels, Gutters, Coils, Flat Bars, Strips, MS Pipes, MS Tubes, Galvanized Pipes and angles) (85 % Hot charging with Hot Billets and remaining 15% through RHF with LDO / Producer Gas as fuel)	1 x 1300 TPD & 1 x 700 TPD	7,00,000 TPA
4.	Coal Gasifier for Rolling Mill	6,300 NM^3/ Hr	6,300 NM^3/ Hr
5.	Submerged Electric Arc Furnaces – Ferro Alloys (FeSi / FeMn / SiMn / FeCr/Pig Iron)	3 x 9 MVA	FeSi – 21,000 TPA / FeMn-75,600 TPA / SiMn-43,200 TPA / FeCr-45,000 TPA/

				Pig Iron - 75,600 TPA
6.	Power plant (80 MW)	WHRB Based Power Plant	4 x 15 MW	60 MW
		FBC Based Power Plant	1 x 20 MW	20 MW
7.	Galvanizing Unit		---	1,00,000 TPA
8.	Bricks manufacturing Unit		70,000 Bricks /Day	70,000 Bricks /Day
9.	Briquetting plant		300 Kg/Hr.	300 Kg/Hr.

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

S.No.	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
1.	Pellets	10,15,000	Maharashtra / Chhattisgarh	~ 500 Kms.	By road (through covered trucks)
	OR				
2.	Iron ore	11,20,000	Maharashtra / Chhattisgarh	~ 500 Kms.	By rail & road (through covered trucks)
3.	Sponge Iron	6,79,000	Own generation	---	Through covered conveyers
4.	MS Scrap / Pig Iron	1,01,000	Maharashtra	~ 100 Kms.	By road (through covered trucks)
5.	Ferro alloys	34,000	Own generation	---	By road (through covered trucks)
6.	LDO	3400 Kl/annum	Nearby IOCL Depot	~ 100 Kms.	By road (through Tankers)
7.	Hot Billets (for Hot charging)	5,95,000	Own generation	---	----
8.	Billets (for Reheating furnace)	1,05,000	Inhouse Generation	---	---
9.	Manganese Ore	1,71,990	MOIL / OMC	~ 500 Kms.	By Rail & Road (through covered trucks)
10.	LAM coke	27,594	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
11.	Quartz	10,368	Maharashtra / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
12.	MS Scrap / Mill scales	11,340	Inhouse Generation	---	By road (through covered trucks)
13.	Electrode Paste	1,512	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
14.	Bagfilter dust	3,780	Own generation	---	---
15.	Magnetite / Bauxite	7,605	Chhattisgarh / Maharashtra	~ 500 Kms.	By road (through covered trucks)
16.	Dolomite	12,852	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)

S.No.	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
17	Hot Billets (for Hot charging)	2,91,720	Own generation	---	----
18.	Indian Coal	10,47,700	SECL Chhattisgarh /MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)
19.	Imported Coal	6,70,496	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)
20.	Chrome Ore	90,000	Sukinda, Odisha Import, South Africa	~ 500 Kms. ~ 600 Kms. (from Vizag Port)	By road (through covered trucks) From Port By Road (through covered Trucks)
21.	FeMn Slag	45,708	In house generation	---	----
22.	HG Iron Ore	1,11,510	Maharashtra / Chhattisgarh	~ 500 Kms.	By rail & road (through covered trucks)

15.6.7 Water required for the proposed project will be 2800 KLD. Water required for proposed project will be supplied by Maharashtra Industrial Development Corporation (MIDC). In case of any shortfall from MIDC, it is proposed to source remaining quantity of water through Borewells in the company owned private land of 10 acres, proximate to the proposed project site (which not part of the MIDC land). A pipeline will be laid to bring water to the proposed project site. Approval will be obtained from CGWA for drawl of Ground water.

15.6.8 Power required for the proposed project will be 121.0 MW and same will be sourced from Captive Power Plant (80.0 MW) and remaining (41.0 MW) from State Grid.

15.6.9 The capital cost of the project is Rs. 615 Crores and capital cost for Environmental Protection Measures is proposed as Rs. 61.5 Crores. Employment generation from proposed project will be 250 nos. through direct employment and 500 nos. through indirect employment.

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

15.6.11 Proposed Terms of Reference: [Baseline data collection period: **1st March 2022 to 31st May, 2022**]

Attributes	Sampling		Remarks
	No. of Stations	Frequency	
A. Air			
a. Meteorological parameters	1	On hourly basis for one season	• Wind Speed • Wind Direction

Attributes	Sampling		Remarks
	No. of Stations	Frequency	
			• Temperature • Relative Humidity • Rainfall
b. AAQ parameters	8	24 hourly Twice a week for 3 months (One Season)	Parameters Monitored: • $PM_{2.5}$ • PM_{10} • SO_2 • NOx • CO
B. Noise	8	On hourly basis for 24 Hrs. at each station	Parameters Monitored: • Day equivalent • Night equivalent
C. Water			
a. Ground Water	8	One sample at each of the locations	Parameters Monitored: as per IS: 10500
b. Surface Water	4	One sample at each of the locations	Parameters Monitored: as per BIS: 2296
D. Land			
a. Soil quality	8	One sample at each of the locations	Parameters Monitored: Texture, infiltration rate, SAR bulk density, pH, Ca, Mg, Na, K, Zn, Mn
b. Land use	--	--	LU map prepared by concerned FAE for study area
E. Biological			
a. Aquatic	--	Once in Season	---
b. Terrestrial	--	Once in Season	Preparation of Conservation plan & PCCF approval for the same
F. Socio economic parameters	--	Once in Season	Social Impact Assessment by concerned FAE for study area

Deliberation by the Committee

15.6.12 The Committee noted the following:

i. Total land identified for the proposed project is 29.44 Ha. (72.74 Acres) and has been allotted by Maharashtra Industrial Development Corporation (MIDC) vide no. MIDC/RON/Mul/B-1/4333/2010 dt. 13.09.2010 and subsequently the same land has been reallotted vide letter No. MIDC/RO(NAGPUR)/Mul/LMS-72/1691/2022 dt. 09/05/2022.

ii. It is reported that Tadoba – Andhari Tiger Reserve boundary starting point is at a distance of 17.0 km and beyond from the project site and whereas ESZ is at distance of 4.8 km from the project site. GO has been issued by MoEF&CC vide dt. 11.09.2019 notifying Tadoba – Andhari Tiger Reserve. Further, it is noted that project proponent has not disclosed the same in the Form 1 on PARIVESH nor in the PFR submitted along-with the application. PP has accepted that they made a mistake of not mentioning the presence of Tadoba – Andhari Tiger Reserve in the application.

iii. The EAC further noted that project proponent has not undertaken alternate site analysis before finalising the proposed project site which is prerequisite for a greenfield project as per the provisions entailed in Form-1 on PARIVESH. The EAC opined that the alternative site analysis is aimed to select the best site in terms of having least adverse social & environmental impacts due to the project apart from other parameters such as technical feasibility and economic & financially viability. Thus EAC advised PP/Consultant to undertake alternate site analysis and submit the revised application fulfilling all the criteria of the application in pursuance to the provisions of EIA Notification, 2006.

iv. Further, as per Ministry's O.M. vide F.No. 22-76/2014-IA-III dated 07.10.2014 which reads as *" While full acquisition of land may not be a prerequisite for the consideration of the case for EC, there should be some credible document to show the status of land acquisition w.r.t project site when the case is brought before the concerned EAC/SEAC for appraisal……"* Therefore in view of the same, credible document showing the status of land acquisition shall be required at the time of appraisal.

v. **The EAC also warned the Consultant M/s. Pioneer Enviro Laboratories and Consultants Pvt. Ltd. for not disclosing the complete information and not guiding the project proponent properly with respect to fulfilling all the criteria at the time of preparation of application and submission of all the requisite documents at the time of appraisal of proposal.**

vi. In view of above, the Project Proponent requested the EAC to allow to reappear after revision of the application.

Recommendations of the Committee

15.6.13 In view of the foregoing and after deliberations, the Committee recommended that proposal to be **returned in its present form** to address the shortcomings enumerated at para no. 15.6.12 above and submit the revised application as per the provisions of EIA Notification, 2006.

***

Agenda No. 15.7

15.7 Manufacturing unit of TMT bars (Capacity 1,35,000TPA) by setting up Induction Furnace, (Capacity-3Nos of 15MT of each) Rolling mill, (Capacity -1,35,000TPA) and CCM(1,35,000TPA) Plant by M/s Purulia Ispat Alloys Private Limited, located at Plot No. 55, 57, 58, 59, 63, 73, 74, 129, 131, 132, 133, 135, 142, 144, Mouza- Marjadpur, J. L. No. 77, Neturia, Purulia, West Bengal – Consideration of TOR.

[Proposal No. IA/WB/IND/286785/2022: File No. IA-J-11011/293/2022-IA-II(IND-I)]

15.7.1 M/s. Purulia Ispat Alloys Private Ltd (PIAPL) has made an application online vide proposal no. IA/WB/IND/286785/2022 dated 04.10.2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed

EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) under Category "B" of the schedule of the EIA Notification, 2006 and attracts general condition due to Interstate boundary of West Bengal & Jharkhand which lies at 3.0 km in NW and is being appraised at Central Level as Category 'A'.

15.7.2 Name of the EIA consultant: M/s. Gaurang Environmental Solutions Pvt. Ltd. [S. No. 117, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/RA 0192 valid till 19.01.2023; Rev. 25, Sept 05, 2022].

Details submitted by Project proponent

15.7.3 The project of Purulia Ispat Alloy Private Ltd (PIAPL) located at Plot No. 55, 57, 58, 59, 63, 73, 74, 129, 131, 132, 133, 135, 142, 144, Mauza – Marjadpur, J. L. No. 77, Neturia, Purulia, West Bengal is for manufacturing unit of TMT bars (Capacity 1,35,000TPA) by setting up Induction Furnace, (Capacity-3Nos of 15MT of each) Rolling mill, (Capacity -1,35,000TPA) and CCM(1,35,000TPA) Plant.

15.7.4 Environmental site settings:

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i</td><td>Total land</td><td>5.09 Ha Baide Land</td><td>-</td></tr>
<tr><td>ii</td><td>Land Acquisition Details as per MoEF&CC OM dated 7/10/2014</td><td>From 5.09 Ha Land about 4.75 Ha land has been converted.</td><td></td></tr>
<tr><td>iii</td><td>Existence of habitation & involvement of R&R, if any.</td><td>No existence of habitation with in Project site
<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Marjadpur</td><td>1.3Km</td><td>E</td></tr><tr><td>Tiltoriya</td><td>1.4Km</td><td>SE</td></tr></table></td><td>Hence R&R is not involved</td></tr>
<tr><td>iv</td><td>Latitude and Longitude of all corners of project site</td><td><table><tr><th>S. NO.</th><th>Latitude</th><th>Longitude</th></tr><tr><td>1.</td><td>23°39'19.48"N</td><td>86°46'36.70"E</td></tr><tr><td>2.</td><td>23°39'18.47"N</td><td>86°46'36.58"E</td></tr><tr><td>3.</td><td>23°39'18.54"N</td><td>86°46'38.05"E</td></tr><tr><td>4.</td><td>23°39'17.26"N</td><td>86°46'37.97"E</td></tr><tr><td>5.</td><td>23°39'17.19"N</td><td>86°46'37.50"E</td></tr><tr><td>6.</td><td>23°39'16.23"N</td><td>86°46'37.45"E</td></tr><tr><td>7.</td><td>23°39'16.23"N</td><td>86°46'36.78"E</td></tr><tr><td>8.</td><td>23°39'15.51"N</td><td>86°46'36.77"E</td></tr><tr><td>9.</td><td>23°39'15.55"N</td><td>86°46'38.51"E</td></tr><tr><td>10.</td><td>23°39'13.86"N</td><td>86°46'38.22"E</td></tr><tr><td>11.</td><td>23°39'12.44"N</td><td>86°46'38.63"E</td></tr><tr><td>12.</td><td>23°39'11.90"N</td><td>86°46'36.56"E</td></tr><tr><td>13.</td><td>23°39'12.27"N</td><td>86°46'34.48"E</td></tr><tr><td>14.</td><td>23°39'12.78"N</td><td>86°46'32.48"E</td></tr><tr><td>15.</td><td>23°39'7.80"N</td><td>86°46'30.27"E</td></tr><tr><td>16.</td><td>23°39'8.58"N</td><td>86°46'28.29"E</td></tr></table></td><td>-</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>17.</td><td>23°39'8.77"N</td><td>86°46'28.44"</td></tr>
<tr><td>18.</td><td>23°39'9.64"N</td><td>86°46'26.51"E</td></tr>
<tr><td>19.</td><td>23°39'12.06"N</td><td>86°46'27.61"E</td></tr>
<tr><td>20.</td><td>23°39'12.25"N</td><td>86°46'26.96"E</td></tr>
<tr><td>21.</td><td>23°39'13.73"N</td><td>86°46'27.36"E</td></tr>
<tr><td>22.</td><td>23°39'13.28"N</td><td>86°46'29.37"E</td></tr>
<tr><td>23.</td><td>23°39'15.56"N</td><td>86°46'30.12"E</td></tr>
<tr><td>24.</td><td>23°39'15.67"N</td><td>86°46'29.08"E</td></tr>
<tr><td>25.</td><td>23°39'17.11"N</td><td>86°46'29.40"E</td></tr>
<tr><td>26.</td><td>23°39'16.99"N</td><td>86°46'30.19"E</td></tr>
<tr><td>27.</td><td>23°39'17.44"N</td><td>86°46'30.22"E</td></tr>
<tr><td>28.</td><td>23°39'17.04"N</td><td>86°46'32.90"</td></tr>
<tr><td>29.</td><td>23°39'17.40"N</td><td>86°46'33.00"E</td></tr>
<tr><td>30.</td><td>23°39'17.36"N</td><td>86°46'33.58"E</td></tr>
<tr><td>31.</td><td>23°39'17.06"N</td><td>86°46'33.29"E</td></tr>
<tr><td>32.</td><td>23°39'17.02"N</td><td>86°46'34.52"E</td></tr>
<tr><td>33.</td><td>23°39'16.95"N</td><td>86°46'34.59"E</td></tr>
<tr><td>34.</td><td>23°39'17.15"N</td><td>86°46'35.25"E</td></tr>
<tr><td>35.</td><td>23°39'19.39"N</td><td>86°46'35.43"E</td></tr>
</table>
</td><td></td></tr>
<tr><td>v</td><td>Elevation of the project site</td><td>135 MRL</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>***Project site:*** No water body within the plant site area.

<table>
<tr><th>S. No</th><th>Name</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>1</td><td>Damodar river</td><td>2.90</td><td>N</td></tr>
<tr><td>2</td><td>Uttalanadi</td><td>4.40</td><td>SW</td></tr>
<tr><td>3</td><td>Barakar River</td><td>7.9</td><td>N</td></tr>
<tr><td>4</td><td>Khundiyanadi</td><td>6.4</td><td>N</td></tr>
<tr><td>5</td><td>Panchet dam</td><td>4.5</td><td>W</td></tr>
</table>

Pond Adjacent to plant in East</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.

<table>
<tr><th>S.N</th><th>Name of PF & RF</th><th>Distance (Km.)</th><th>Direction</th></tr>
<tr><td>1</td><td>Bheti PF</td><td>10.2 Km</td><td>SE</td></tr>
<tr><td>2</td><td>Dandahit PF</td><td>12.6km</td><td>SE</td></tr>
<tr><td>3</td><td>Indira PF</td><td>11.6km</td><td>SW</td></tr>
<tr><td>4</td><td>Senra PF</td><td>10.7km</td><td>SW</td></tr>
<tr><td>5</td><td>Muktipur PF</td><td>8.7km</td><td>E</td></tr>
<tr><td>6</td><td>Nimtikuri PF</td><td>14.6</td><td>SE</td></tr>
<tr><td>7</td><td>Lediam PF</td><td>14.3</td><td>SE</td></tr>
<tr><td>8</td><td>Panchakot Pahar</td><td>3 Km</td><td>S</td></tr>
</table>
</td><td>-</td></tr>
</table>

15.7.5 The existing project was accorded CTE by memo No. 903-WPBA/NOC/Org(209)/ Prl/2021 dated 27.12.2021 from West Bengal Pollution Control Board for manufacturing MS billet 26400MT/year with induction furnace 8.0 Ton/year. So, boundary wall, shed and labor room are already constructed. After that Management of company decided to enhanced the capacity of TMT bars by 1,35,000 TPA and taken the environmental clearance as per applicability.

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

Name of the facility	Capacity (TPA)
Induction Furnace	1,35,000
CCM	1,35,000
Rolling Mill	1,35,000

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

S. No	Particular	Quantity	Source	Mode of Transport
1	Sponge Iron	1,08,000 MT	Local	Road
2	Pig Iron	40,500 MT	Sail	Road
3	Ms Scrap	27,000 MT	Sail/Local	Road
4	Silico Manganese	1,350 MT	Local	Road

15.7.8 The water requirement for the project is estimated as 100 KLD initially and fresh water requirement will be 55KLD. The requirement will be met from Ground water. Permission for the quantity will be obtained from CGWB.

15.7.9 The power requirement for the project is estimated as 16.5 MVA Power which will be sourced from Damodar river Valley corporation.

15.7.10 The capital cost of the project is Rs 36 Crores. The employment generation from the proposed project expansion is 200.

15.7.11 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.

15.7.12 Proposed Terms of Reference: [Baseline data collection period: **1st March 2022 to 31st May, 2022**]

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
A. Air				
a. Meteorological parameters	Temp., Relative Humidity, Wind Speed, Wind Direction, Rainfall	1 Location	24-hourly sampling for three months	Secondary data from IMD.
b. AAQ	PM10, PM2.5,	8 Locations	24-hourly	Monitoring Network:

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
parameters	SO2, NOx,		sampling, twice a week for 12 weeks	1 locations in upwind side, 2 locations in downwind side / impact zone. All the sensitive receptors are covered
B. Noise	Leq (Day & Night), Lmax (Day & Night), Lmin (Day & Night)	8 Locations	24-hourly sampling, twice in a week (working and non-working day) for 3 months	Monitoring Network: 1 locations near to project site, 7 sites in impact zone. All the sensitive receptors are covered
C. Water				
a. Surface water quality parameters	pH, EC, NO3, Na, K, Fe, Al, Ca, Cl, Cr, Mg, TDS, TSS, DO, SO4, F, BOD, COD, Zn, Cu, Mn, Cd, Turbidity, Odour,FreeNH4, SAR	5 Locations	Once in a day in each month for one season	One grab sample per location
b. Ground water quality parameters	pH, Ca, Cl, Mg, TDS, SO4, F, NO3, Fe, Al, Zn, Cu, Mn, Cd, Pb, Hg, EC, Turbidity, Odour	5 Locations	Once in a day in each month for one season	One grab sample per location
D. Land				
a. Soil quality	pH, Conductivity, Soil Texture, Water Holding Capacity, Cl, Ca, Na, K, Organic matter, Mg, N, Zn, Mn, Phosphorus, Pb, Cd, Cr, Cu	8Locations	Once in a day in each month for one season	One surface sample from project site, Agriculture, forest, water body and prime villages.
E. Biological				
a. Aquatic	Species of Plants and fauna.	Within 10 km Radius study area	One season	Secondary data to collect from Government offices, NGOs, published literature
b. Terrestrial	Species of Plants and Animals. Rare and endangered	Within 10 km Radius study area	One season	Secondary data to collect from Government offices,

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

Deliberation by the Committee

15.7.13 The Committee noted the following:

i. PP has obtained CTE by memo No. 903-WPBA/NOC/Org(209)/Prl/2021 dated 27.12.2021 from West Bengal Pollution Control Board for manufacturing MS billet 26400MT/year with induction furnace 8.0 Ton/year. So, boundary wall, shed and labor room are already constructed. After that Management of company decided to enhanced the capacity of TMT bars by 1,35,000 TPA and taken the environmental clearance as per applicability.

ii. Total land identified for the proposed project is 5.09 Ha. From 5.09 Ha Land about 4.75 Ha land has been converted.

iii. The EAC further noted that project proponent has not undertaken alternate site analysis before finalising the proposed project site which is prerequisite for a greenfield project as per the provisions entailed in Form-1 on PARIVESH. The EAC opined that the alternative site analysis is aimed to select the best site in terms of having least adverse social & environmental impacts due to the project apart from other parameters such as technical feasibility and economic & financially viability. Thus EAC advised PP/Consultant to undertake alternate site analysis and submit the revised application fulfilling all the criteria of the application in pursuance to the provisions of EIA Notification, 2006.

iv. Further, as per Ministry's O.M. vide F.No. 22-76/2014-IA-III dated 07.10.2014 which reads as *" While full acquisition of land may not be a prerequisite for the consideration of the case for EC, there should be some credible document to show the status of land acquisition w.r.t project site when the case is brought before the concerned EAC/SEAC for appraisal……"* Therefore in view of the same, credible document showing the status of land acquisition shall be required at the time of appraisal.

v. **The EAC also advised the Consultant M/s. Gaurang Environmental Solutions Pvt. Ltd. for guiding the project proponent properly with respect to fulfilling all the criteria at the time of preparation of application and submission of all the requisite documents at the time of appraisal of proposal.**

vi. In view of above, the Project Proponent requested the EAC to allow to reappear after revision of the application.

Recommendations of the Committee

15.7.14 In view of the foregoing and after deliberations, the Committee recommended that proposal to be **returned in its present form** to address the shortcomings enumerated at para no. 15.7.13 above and submit the revised application as per the provisions of EIA Notification, 2006.

***

DAY 2: OCTOBER 18, 2022 [TUESDAY]

Consideration of Environmental Clearance Proposals

Agenda No. 15.8

15.8 Change of fuel from LSHS to Natural gas (fuel oil as stand by) in the Existing 7.0 MTPA Iron ore Pelletisation plant and net 25 MW Captive power plant by M/s ArcelorMittal Nippon Steel India Limited (Formerly Essar Steel India Limited), located at Village Kancharapalem, Tehsil Vishakhapatnam Urban, District Vishakhapatnam, Andhra Pradesh – Consideration of Environmental Clearance.

[Proposal No. IA/AP/IND1/400545/2022; File No. IA-J-11011/131/2022-IA-II(IND-I)]
[Consultant: Ecomen Laboratories Pvt. Ltd.; valid upto 21.09.2023]

15.8.1 M/s ArcelorMittal Nippon Steel India Limited has made an online application vide proposal no. IA/AP/IND1/400545/2022 dated 4th October, 2022 along with copy of EIA/EMP report and Form – 2 and certified compliance report seeking Environment Clearance (EC) under the provision of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

15.8.2 Name of the EIA consultant: M/s. Ecomen Laboratories Pvt. Ltd. [Sl. No. 158, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0203; valid upto 21.09.2023, Rev. 25, Sept 05, 2022].

Details submitted by the project proponent

15.8.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity

Date of application	Consideration	Details	Date of accord	ToR Validity
12/03/2022	4th meeting of EAC (Industry-1) held on 27-28 March, 2022	Terms of Reference	24/05/2022	23/05/2026

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

15.8.5 Environmental site settings

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>Plant: 44.5154 ha (110 acre)
Stock Pile: 18.25ha (45.10 acre)</td><td>Land use: General Industrial use.</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td colspan="2">This land is on lease with effective from 20.09.1991 from Visakhapatnam Port Trust along with change of land use for establishing pellet plant as well as CPP.

The long term (30 Years) of land lease agreement with Visakhapatnam Port Trust (VPT) was expired in September’2021. Project Proponent have applied for renewal for another 30 years and the renewal is under process with VPT.

AMNS India, Visakhapatnam paid Rs. 10,93,39,2709 towards land lease rent as demanded by VPT for the period 20.09.2021 to 30.04.2022.</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project Site: Nil.

Study Area:
<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Velampeta</td><td>2.0 Km</td><td>SE</td></tr><tr><td>Gnanapuram</td><td>0.9 Km</td><td>E</td></tr><tr><td>Kancharpalem</td><td>0.9 Km</td><td>NE</td></tr><tr><td>Akkyapalem</td><td>2.8 Km</td><td>NE</td></tr><tr><td>Gandhigram</td><td>3.3 Km</td><td>SW</td></tr></table></td><td>R&R not involved.</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all corners of the project site.</td><td>Coordinates of Plant Area
<table><tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr><tr><td>A</td><td>17.721773</td><td>83.271006</td></tr><tr><td>B</td><td>17.723110</td><td>83.272962</td></tr><tr><td>C</td><td>17.237741</td><td>83.275812</td></tr><tr><td>D</td><td>17.722076</td><td>83.276864</td></tr><tr><td>E</td><td>17.716586</td><td>83.277529</td></tr><tr><td>F</td><td>17.716586</td><td>83.274075</td></tr><tr><td>G</td><td>17.716764</td><td>83.272612</td></tr><tr><td>H</td><td>17.716796</td><td>83.271592</td></tr></table>Coordinates of Stock pile Area (Outside Plant area)
<table><tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr></table></td><td>-</td></tr>
</table>

<table>
<tr><td></td><td></td><td><table>
<tr><td>A</td><td>17.712097</td><td>83.276589</td></tr>
<tr><td>B</td><td>17.711712</td><td>83.275379</td></tr>
<tr><td>C</td><td>17.711379</td><td>83.275233</td></tr>
<tr><td>D</td><td>17.704044</td><td>83.276112</td></tr>
<tr><td>E</td><td>17.703639</td><td>83.276788</td></tr>
<tr><td>F</td><td>17.703669</td><td>83.277232</td></tr>
</table></td><td></td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td colspan="2">4.7 m above mean sea level</td><td>-</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td colspan="2">Nil.</td><td>-</td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td colspan="2">Project site: Nil

Study area<table>
<tr><th>Water body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Bay of Bengal</td><td>3.3 km</td><td>E</td></tr>
<tr><td>Narava Gedda</td><td>5.3 km</td><td>W</td></tr>
<tr><td>Mehadri Gedda</td><td>9.2 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/ elephant reserve etc. if any within the study area</td><td colspan="2">Project Site- Nil

Study Area:
Kailasa konda Forest, (2.5 km)
Kambala konda wildlife sanctuary (7.8 km)
Yerra konda Rain Forest, (7.9km) Narrava Rain Forest (10.5km)
Sitakonda Rain Forest (8.1km)</td><td>Satellite map showing Kambalakonda WLS ESZ boundary as per Gazette Notification dated 28th April 2017 and project boundary is submitted.
The ESZ boundary is 6 km away from the project boundary.</td></tr>
<tr><td>ix.</td><td>CRZ Clearance</td><td colspan="2">A. Environmental & CRZ clearance letter obtained by VPT for its various facilities vide letter F. No. 11-93/2012-IA-II dated 25th May 2016.
B. APCZMA CRZ map 2011 on which the AMNS stockpile area and plant are falling outside the CRZ boundary is submitted.</td><td>-</td></tr>
</table>

15.8.6 The Project Proponent has established initially 4 MTPA Iron Ore Pellet Plant during 1991 after obtaining Consent to Establish (CTE) from APPCB on 12/07/1991. There after the plant was commissioned after obtaining Consent to Operate (CTO) from APPCB on 30/10/1997. Later PP went for expansion of the Pelletisation plant from 3.3 MMTPA to 7.0 MMTPA under-II vide APPCB order No. 13060/PCB/C.Estt/RO-VSP/EE/2-2001-3719 dated 13.03.2001 envisaging to carry the beneficiated ore fines in slurry form rom the beneficiation plant located at Kirandul, Chhattisgarh state. PP also established a Coal based captive power plant to generate Electricity of net 25 MW for captive use vide Consent to Establish dated 19/09/2003 & Consent to Operate dated 12/05/2006 from APPCB. As per the Ministry's circular dated 21/11/2006, the projects which are attracting the provisions of EIA, 2006 for which NOC

issued before 14/09/2006 are not required to take Environment Clearance under the provisions of EIA Notification, 2006. In the instant case, the proponent has obtained CTE as well as CTO prior to 14/09/2006, hence EC has not been obtained by the PP under the provisions of EIA Notification, 2006. The latest Consent to Operate for the existing unit was accorded by APPCB vide Consent Order No: APPCB/VSP/VSP/111/CFO/HO/2019- dated 04/10/2019 and subsequent amendment on name change vide Order No: APPCB/VSP/VSP/111/CFO/HO/2020- 28/03/2020. The validity of CTO is up to valid up to 31/12/2024.

15.8.7 Implementation status of the existing CTE:

S.no	Facilities	Units	As Per CTO dated 28/03/2020	Implementation status as on 28/03/2020	Production as per CTO
1	Pellet plant - 1	TPD	Pellet plant - 1	Under Operation	11,000 TPD
2	Pellet plant - 2	TPD	Pellet plant - 2	Under Operation	12,333 TPD
3	Captive Power Plant	MW	Captive Power Plant	Under Operation	25 MW (Net)

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

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

15.8.9 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 (Post Modernization Project)			
1	Iron Ore Concentrate/ Iron Ore	70,41,641 TPA	NA	70,41,641 TPA	Slurry Pipeline/ Railway Rakes Kirandul,	267	Pipeline/Railway Rakes

	Fines				NMDC		
2	Limestone	1,12,000 TPA	NA	1,12,000 TPA	Dubai	1.8	Sea route
3	Bentonite	70,210 TPA	NA	70,210 TPA	Kandla, Gujarat	1.8	Sea route
4	Anthracite Coal	99,050 TPA	NA	99,050 TPA	Russia / Ukraine	1.8	Sea route
5	Steam Coal	1,64,340 TPA	NA	1,64,340 TPA	Indonesia	1.8	Sea route
6	Fuel Oil	1,07,142.86 TPA	NA	2500 Tone as back up in fuel oil storage tank	HPCL Vizag Refinery	6.2	By Road
7	Mill Scale	3,00,000 TPA	NA	3,00,000 TPA	Hazira	1.8	Sea route
8	Natural gas	NA	0.4 MMSCMD	0.4 MMSCMD	GAIL/APGDC	1.9	Pipeline

15.8.10 No additional water requirement is envisaged for the proposed change of fuel project. Total water requirement for the existing plant as 10205 m^3 /day, including 3655m^3/day for Captive Power Plant and water required for Pellet Plant is 6550 m^3/day. Around 1200 m^3/day of fresh make-up water requirement is being sourced from GVMC vides letter No. 10935 dated 18 Jan, 2022. Around 9120 m^3/day is being met from slurry recycled water.

15.8.11 No additional power requirement is envisaged for the proposed change of fuel project. Total power requirement for the existing project is 40 MW, out of which 25 MW is being obtained from the Captive Power Plant and 15 MW is being sourced from APEDCL grid supply for which agreement is in place.

15.8.12 Baseline Environmental Studies

Period	19th October, 2021 to 18th January, 2022
AAQ parameters at 11 Locations (min and max)	• $PM_{2.5}$ = 18.10 to 31.50 µg/m^3 • PM_{10} = 51.2 to 89.30 µg/m^3 • SO_2 = 8.70 to 18.50 µg/m^3 • NOx = 12.20 to 27.00 µg/m^3
Incremental GLC level	• SO_2 = 0.425µg/m^3 (Max. Conc.) (Level at 0.3 Km in SW Direction) • NOx = 6.29 µg/m^3 (Max. Conc.) (Level at 0.2 Km in NW Direction) • Post Project Pollutant Reduction in AAQ: • PM10 : 0.3 – 2.5%; PM2.5 : 0.5 – 6.8 %; SO2 : 0.9 – 13%; • NO2 : 0- 5.3%
Ground water quality at 8 locations	• pH: 6.94 to 7.69, Total Hardness: 196.0 to 280.0 mg/l, Chlorides: 44.00 to 136.0 mg/l, Fluoride: 0.30to 0.69 mg/l, Iron: 0.23 to 0.77 mg/l
Surface water quality at 3 locations	• pH: 7.32 to 7.62, DO: 5.6-6.4 mg/l and BOD: 10 mg/l (max.)

<table>
<tr><td>Noise levels Leq (Day and Night)</td><td>

Leq (Day); Commercial: 54.7 dB(A) -52.1 dB(A)
Leq (Night); Commercial: 41.6 dB(A) -45.5 dB(A)
Leq (Day); Industrial: 53.7 dB(A) -66.7 dB(A)
Leq (Night); Industrial: 42.8 dB(A) -61.2 dB(A)

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

Traffic study has been conducted at VPT Road which is at near the plant site.
Existing PCU is 418 PCU/hr on VPT Road and existing level of service (LOS) is: 0.67

<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>VPT Road</td><td>418</td><td>625</td><td>0.67</td><td>0.67</td></tr>
</table>

PCU load after proposed project will be 414 PCU/hr and level of service (LOS) will be: 0.66

<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>VPT Road</td><td>416</td><td>625</td><td>0.66</td><td>0.66</td></tr>
</table>
Conclusion: After the proposed project, LOS will be 0.66 on the VPT road.
</td></tr>
<tr><td>Flora and fauna</td><td>There are 8 Schedule-I species namely Leopard cat, Mouse Deer, Leopard, Pangolin, Indian Python, Pea fowl, Pied Hornbill and Vultures as per the forest working plan.
Total fund earmarked for implementation conservation plan are Rs. 4 lakhs (capital cost) and Rs. 1.5 lakhs (recurring cost).</td></tr>
</table>

15.8.13 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	Mode of Treatment / Disposal
1.	Fly ash	Captive Power Plant	15 Tons / day	stored in silo and disposed of to brick manufacturer
2.	Used/ Waste Oil	Equipment maintenance	24 KL / Annum	Sold to Authorized Recyclers/ Reprocesses
3.	Municipal waste	Canteen	400 kg/day	Biodegradable waste is composted, and recyclable waste is disposed of to the authorized vendors.
4.	M.S Scrap	Plant maintenance/ operations	650-850 Tons / Annum	Sold to vendors
5.	Used Conveyor Belt	Plant maintenance/ operations	60-110 Tons / Annum	Sold to vendors
6.	Used filter bags	Plant maintenance/ operations	60-120 Tons / Annum	Sold to vendors
7.	Rubber Scrap	Plant maintenance/ operations	40-55 Tons / Annum	Sold to vendors

8.	Wood Scrap	Plant maintenance/ operations	30-40 Tons / Annum	Sold to vendors
9.	E-waste	Plant maintenance/ operations	5-10 Tons / Annum	Sold to authorized recyclers/ collection centers

15.8.14 **Public Consultation**

The instant proposal is for seeking Environmental clearance for change of fuel in the existing pellet plant of 7 MTPA from LSHS (Fuel oil) to Natural Gas (Fuel Oil as stand by) without change in production capacity. Proposed modernization of existing unit was considered by the EAC under the provisions of para 7(ii)(a) and the public hearing is waived off as per ToR dated 24.05.2022.

PP has committed for spending Rs. 5 Cr as CER as follows:

Year	Rs. In Crores	Schemes
2023	1.6	Innovative schemes in consultation with District Administration.
2024	1.7	
2025	1.7	
Total	**5.0**	-

15.8.15 The cost of the proposed change in fuel from LSHS to Natural gas (with LSHS as backup fuel arrangement) is estimated to Rs 48.2 crores and the capital cost for environmental protection measures is proposed project as Rs. 2.91 crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 2.61 crores. However, project cost was Rs. 1307.98 Cr since inception. The employment due to existing & post project is 950 and there is no change. The details of cost for environmental protection measures of the proposed project, is as follow:

S. No.	Capital Cost		Recurring Cost	
	Description of Item	**Capital Cost (Rs in Lakhs)**	**Description of Item**	**Recurring Cost (Rs in Lakhs Per Annum)**
(i).	Air Pollution control equipment (ESPs) upgradation	200	Recurring expenditure on all Air pollution control equipment for replacements of internal equipment	57.09
(ii).	Sewage Treatment for Domestic/sanitary wastewater	15	Annual Maintenance contract for All Air pollution control equipment and Supervision and Overhauling	30.15
(iii).	Emission Monitoring equipment upgradation	51	Occupational Health & Safety for Employees and Associates	120.00
(iv).	Green belt development (Additional)	25	Annual Maintenance of existing greenbelt inside the plant and surrounding areas	50.00
(v).	-	-	Sewage Treatment for Domestic/sanitary wastewater	1.0
(vi).	-	-	Emission Monitoring equipment	3.0

			upgradation	
	Total	**291**	**Total**	**261.24**

15.8.16 The existing green belt has been developed in a total area of 49.24 acre / 19.93 ha (32%) with 49537 number of trees. Miyawaki method of plantation implemented within the plant premises in an area of 625 m^2 by planting 20 verities of species of 1875 nos. Total of 20.56 ha will be covered under greenbelt @2500 plants/ha. Local and native species will be planted.

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

Particulars		**As per CTO dated 28.03.2020**	**After proposed change under para 7(ii)**	**% increase**
Land		44.515 ha (Plant area) and 18.25 ha (Stock pile area)	44.515 ha (Plant area) and 18.25 ha (Stock pile area)	0
Greenbelt		19.93 ha	20.56 ha	3
Water		10205 KLD	10205 KLD	0
Power		40 MW	40MW	0
Raw materials	Iron ore Concentrate/Iron ore Fines	70,41,641 TPA	70,41,641 TPA	0
	Limestone	1,12,000 TPA	1,12,000 TPA	0
	Bentonite	70,210 TPA	70,210 TPA	0
	Anthracite Coal	99,050 TPA	99,050 TPA	0
	SteamCoal	1,64,340 TPA	1,64,340 TPA	0
	Fuel oil	1,07,142.86 TPA	0	-100
	Mill Scale	3,00,000 TPA	3,00,000 TPA	0
	Natural gas	0	0.4 MMSCMD	100
Products	Pelletisation Plant-I	11,000 (TPD)	11,000 (TPD)	0
	Pelletisation Plant-II	12,333 (TPD)	12,333 (TPD)	0
	Captive Power Plant net generation	25 MW	25 MW	0

15.8.18 Pollution load assessment:

Particulars	**As per CTO dated 28.03.2020**	**After proposed change under para 7(ii)**	**% increase**
Air (Incremental GLC)	Max. $PM_{2.5}$ = 1.49 µg/m^3 Max. PM_{10} = 1.95 µg/m^3 Max. SO_2 = 1.51 µg/m^3 Max. NOx = 6.99 µg/m^3	Max. $PM_{2.5}$ = 0 µg/m^3 Max. PM_{10} = 0 µg/m^3 Max. SO_2 = 0.42 µg/m^3 Max. NOx = 6.25 µg/m^3	$PM_{2.5}$ = 0 PM_{10} = 0 SO_2 = - 72.19 NOx = -10.59
Water	10205 KLD	10205 KLD	0
Solid and Hazardous waste	19.42 TPD	19.42 TPD	0
Traffic load	10035 PCU in VPT road	9993 PCU in VPT road	-0.42%

15.8.19 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

15.8.20 The Status of compliance of existing CFO was obtained from Regional Office, Andhra Pradesh Pollution Control Board Visakhapatnam A.P *vide* letter no. APPCB/UH: IV/CFO/MOEF&CC/compr Rpt/2022, dated 08.09.2022 in the name of The Member Secretary, Expert Appraisal Committee (industry-1) MOEF & CC New Delhi. The Action taken report regarding the partially/non-complied condition was submitted to The Member Secretary, Industry-1, MoEF&CC, vide letter no. APPCB/UH:IV/CFO/MOEF&CC/compr Rpt/2022, dated 08.09.2022 MoEF&CC. As per the APPCB compliance letter dated 08.09.2022, all the conditions were complied with for the existing project.

Written representations:

15.8.21 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 18.10.2022 through email dated 18.10.2022 submitted the following information (also updated in paragraphs above):

<table>
<tr><th>S. No.</th><th>Discussion Points</th><th>Reply/Compliance</th></tr>
<tr><td>1.</td><td>Proof of expansion from 4 MTPA to 7 MTPA obtained prior to EIA Notification, 2006</td><td>CTE letter from APPCB for expansion from 4 MTPA to 7 MTPA vide APPCB order No. 13060/PCB/C.Estt/RO-VSP/EE/2-2001-3719 dated 13.03.2001. Copy is submitted.</td></tr>
<tr><td>2.</td><td>Proof of lease rent payment by AMNS to VPT as per their demand after expiry of lease on 19.09.2021</td><td>AMNS India, Visakhapatnam paid Rs. 10,93,39,2709 towards land lease rent as demanded by VPT for the period 20.09.2021 to 30.04.2022. Copy is submitted.</td></tr>
<tr><td>3.</td><td>CRZ clearance letter obtained by VPT for its existing and expansion facilities including VPT ore handling complex of which AMNS stockpiles are also located.</td><td>A. Environmental & CRZ clearance letter obtained by VPT for its various facilities vide letter F. No. 11-93/2012-IA-II dated 25th May 2016 is submitted.
B. APCZMA CRZ map 2011 on which the AMNS stockpile area and plant are falling outside the CRZ boundary is submitted.</td></tr>
<tr><td>4.</td><td>The relative position of the existing plant with reference to ESZ boundary of Kambalakonda WLS</td><td>Satellite map showing Kambalakonda WLS ESZ boundary as per gazette notification dated 28th April 2017 and project boundary is submitted.
The ESZ boundary is 6 km away from the project boundary.</td></tr>
<tr><td>5.</td><td>Commitment from Project proponent for spending Rs. 5 Cr as CER</td><td><table><tr><th>Year</th><th>Rs. In Crores</th><th>Schemes</th></tr><tr><td>2023</td><td>1.6</td><td>Innovative schemes in</td></tr></table></td></tr>
</table>

S. No.	Discussion Points	Reply/Compliance		
		2024	1.7	consultation with District Administration.
		2025	1.7	

Deliberations by the Committee

15.8.22 The Committee noted the following:

1. The instant proposal is for change of fuel in the existing 7.0 MMTPA Iron Ore Pelletisation from LSHS (Fuel oil) to Natural Gas (Fuel Oil as stand by) running based on CTE/CTO.

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 Project Proponent has established initially 4 MTPA Iron Ore Pellet Plant during 1991 after obtaining Consent to Establish (CTE) from APPCB on 12/07/1991. There after the plant was commissioned after obtaining Consent to Operate (CTO) from APPCB on 30/10/1997. Later PP went for expansion of the Pelletisation plant from 3.3 MMTPA to 7.0 MMTPA under-II vide APPCB order No. 13060/PCB/C.Estt/RO-VSP/EE/2-2001-3719 dated 13.03.2001 envisaging to carry the beneficiated ore fines in slurry form from the beneficiation plant located at Kirandul, Chhattisgarh state. PP also established a Coal based captive power plant to generate Electricity of net 25 MW for captive use vide Consent to Establish dated 19/09/2003 & Consent to Operate dated 12/05/2006 from APPCB. As per the Ministry's circular dated 21/11/2006, the projects which are attracting the provisions of EIA, 2006 for which NOC issued before 14/09/2006 are not required to take Environment Clearance under the provisions of EIA Notification, 2006. In the instant case, the proponent has obtained CTE as well as CTO prior to 14/09/2006, hence EC has not been obtained by the PP under the provisions of EIA Notification, 2006.

6. The unit has a total plant area of 44.5154 ha along with Stockpile area of 18.25 ha outside the plant area at Survey No. 15A of Kancharapalem, Vishakhapatnam, Andhra Pradesh. This land is on lease from Visakhapatnam Port Trust along with change of land use for establishing our pellet plant as well as CPP. The long term (30 Years) of land lease agreement with Visakhapatnam Port Trust (VPT) expired in September'2021. Project Proponent have applied for renewal for another 30 years and the renewal is under process with VPT. AMNS India, Visakhapatnam paid Rs. 10,93,39,2709 towards land lease rent as demanded by VPT for the period 20.09.2021 to 30.04.2022.

7. The nearest habitations to plant are Gnanapuram (0.9 km, E), Kancharpalem (0.9 km, NE), Velampeta (2 km, SE), Akkyapalem (2.8 km, NE) and Gandhigram (3.3 km, SW) from the project site boundary.

8. No additional water requirement is envisaged for the proposed change of fuel project. Total water requirement for the existing plant as 10205 m^3 /day, including 3655m^3/day for Captive Power Plant and water required for Pellet Plant is 6550 m^3/day. Around 1200 m^3/day of fresh make-up water requirement is being sourced from GVMC and around 9120 m^3/day is being met from slurry recycled water.

9. Bay of Bengal (3.3 Km, E), Narava Gedda (5.3 km, W) and Mehadri Gedda (9.2 km, NW) exists within the study area. 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.

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

11. The EAC noted that the existing green belt has been developed in a total area of 49.24 acre / 19.93 ha (32%) with 49537 number of trees. Total of 20.56 ha will be covered under greenbelt @2500 plants/ha.

12. There are 8 Schedule-I species namely Leopard cat, Mouse Deer, Leopard, Pangolin, Indian Python, Pea fowl, Pied Hornbill and Vultures as per the forest working plan. Total fund earmarked for implementation of conservation plan are Rs. 4 lakhs (capital cost) and Rs. 1.5 lakhs (recurring cost).

13. The Kambalakonda Wildlife Sanctuary falls in study area, which is located on the Kailashgiri Hills about 7.8 km north of the project site. The Kambalakonda Wildlife Sanctuary has been notified by MoEF&CC vide Draft Notification No. S.O. 62 (E) dated 7th January, 2016. Satellite map showing Kambalakonda WLS ESZ boundary as per gazette notification dated 28th April 2017 and project boundary is submitted. The ESZ boundary is 6 km away from the project boundary.

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 deliberated upon the certified compliance report of RO SPCB and found it satisfactory.

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

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

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

Recommendations of the Committee:

15.8.23 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 para 7(ii) provisions of EIA Notification, 2006 for change of fuel in the existing 7.0 MMTPA Iron Ore Pelletisation from LSHS (Fuel oil) to Natural Gas (Fuel Oil as stand by) operating on the basis of CTE/CTO from SPCB, 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. Total water requirement for the existing plant as 10205 m^3 /day, including 3655m^3/day for Captive Power Plant and water required for Pellet Plant is 6550 m^3/day shall be met from GVMC (1200 m^3/day) and recycled water (9120 m^3/day).
iv. Project Proponent shall obtain renewal of lease from Visakhapatnam Port Trust.
v. Following additional arrangements to control fugitive dust shall be provided:
   a. Fog / Mist Sprinklers at all conveyors point and on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
   b. Proper covered vehicle shall be used while transport of materials.

c. Wheel Washing mechanism shall be provided in entry and exit gates with complete recirculation system.

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

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

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

ix. Particulate matter emission from stacks shall be less than 30 mg/Nm^3. Action plan submitted to limit the dust emission shall be strictly implemented.

x. Solid waste utilization

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

xi. Bay of Bengal (3.3 Km, E), Narava Gedda (5.3 km, W) and Mehadri Gedda (9.2 km, NW) exists within 10 Km. radius of the plant 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.

xii. 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.

xiii. 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.

xiv. Gnanapuram (0.9 km, E), Kancharpalem (0.9 km, NE), Velampeta (2 km, SE), Akkyapalem (2.8 km, NE) and Gandhigram (3.3 km, SW) exists within the study area of project site Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include this location in its environmental monitoring programme.

xv. As committed, project proponent shall undertake CER through innovative schemes in consultation with District Administration.

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

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

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

xix. Air Cooled condensers shall be used in the captive power plant.

xx. During operational phase at Captive Power Plant, PP shall measure coal dust exposures and to maintain coal dust exposures within stipulated standards at coal handling areas. PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.

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

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

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

B. General conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

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

systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

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

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

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

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

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

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

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 414 (E) dated 30th May 2008; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF); S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

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

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

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

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

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

i. Used refractories shall be recycled.

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

VII. Green Belt

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

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

VIII. Public hearing and Human health issues

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

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

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

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.

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

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

X. Miscellaneous

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

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

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

iv. The project proponent shall monitor the criteria pollutants level namely; 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. 15.9

15.9 Expansion of existing Steel Plant by installation of 0.6 MTPA Iron Ore Beneficiation Plant, 0.6 MTPA Pelletization Plant, Sponge Iron Plant with 1x350 TPD + 1x500 TPD DRI Kilns, product mix change of existing 2x7 MVA Submerged Arc furnaces, 4x25 T Induction Furnaces & 40 MW capacity Captive Power Plant by M/s Jai Balaji Industries Limited (Unit-I), located at G-1, Mangalpur Industrial Complex, P.O.-Baktarnagar, P.S. Raniganj, Dist. – Paschim Bardhaman, West Bengal– Consideration of Environmental Clearance.

[Proposal No. IA/WB/IND/280305/1999; File No. IA-J-11011/290/2018-IA-II(I)]
[Consultant: Envirotech East Pvt. Ltd.; valid upto 25.12.2022]

15.9.1 M/s Jai Balaji Industries Limited has made an online application vide proposal no. IA/WB/IND/280305/1999 dated 27th September, 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. 2(b) Mineral beneficiation, 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.

15.9.2 Name of the EIA consultant: M/s. Envirotech East Pvt. Ltd. [NABET Extension Letter vide QCI/NABET/ENV/ACO/22/2532 dated 26.09.2022; valid upto 25.12.2022].

Details submitted by Project proponent

15.9.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of accord	ToR Validity
22.07.2019	9th meeting of EAC (Industry	Terms of Reference	03.09.2019	02.09.2023

Date of Application	Consideration	Details	Date of accord	ToR Validity
	1 Sector), held on 30-31st July, 2019			

15.9.4 The project of M/s Jai Balaji Industries Limited (Unit - I) located at G-1, Mangalpur Industrial Complex, P.O.-Baktarnagar, P.S. Raniganj, District: Paschim Bardhaman,West Bengal is for expansion of existing Steel Plant by installation of 0.6 MTPA Iron Ore Beneficiation Plant, 0.6 MTPA Pelletization Plant, Sponge Iron Plant with 1x350 TPD + 1x500 TPD DRI Kilns, product mix change of existing 2x7 MVA Submerged Arc furnaces, 4x25 T Induction Furnaces & 40 MW capacity Captive Power Plant.

15.9.5 Environmental Site Settings:

S. N.	Particulars	Details	Remarks
i.	Total land	34.8 ha [Private: 34.8 ha]	Land use: Industrial – 34.8 ha
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	The land is under the possession of the Company. The proposed expansion project will be installed on the available land within the existing plant premises, comprising total 34.8 hectares (86 acres) of land.	-
iii.	Existence of habitation & involvement of R&R, if any	There is no habitation and no involvement of R&R. The nearest industrially developed town is Raniganj and Andal, which are located at around 2.5 km in north-west direction and 6.0 km in south-east direction respectively w.r.t. the project site.	Total land under the possession of the company.
iv.	Latitude and Longitude of the project site	The four points on the boundary of the project site are as follows: 1. Latitude - 23°36'36.88"N N & Longitude - 87°9'7.36"E 2. Latitude - 23°36'11.30"N & Longitude - 87° 8'42.36"E 3. Latitude - 23°36'12..27"N & Longitude - 87°8'34.33"E 4. Latitude - 23°36'45.41"N & Longitude - 87°8'55.32"E	-
v.	Elevation of the project site	88 m to 107 m AMSL	-
vi.	Involvement of Forest land if any.	No involvement of Forest Land	-
vii.	Water body exists within the project site as well as study area	**Project Site:** No water body in the project site. **Study area:**	-

S. N.	Particulars	Details	Remarks
		Damodar River - 4.5 km in SW direction	
viii.	Existence of ESZ / ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area	Nil	-

15.9.6 The existing project was implemented after getting NOCs from WBPCB in the year 1999, 2001,2001, 2002, 2003, 2004, 2008 and 2009 as per the prevailing notification (in the year 1994) of MoEF&CC, as per which No Environmental Clearance (EC) was required for this project. Consent to Operate for the existing units were accorded by West Bengal Pollution Control Board vide Consent Letter No. CO131845 Memo No. 403-WPBA/RED (Bwn)/Cont(332)/2002 dated 31.05.2022 valid up to 31.05.2027. The summary of the existing project along with the permissions obtained are as follows:

S. No.	Obtained Certificate Name	Date of Issue	Reference Number	Name of Units	Obtained from
1	No Objection Certificate (NOC)	08-12-1999	Memo No. 2174-51/WPB-NOC/40/99	1st Rotary Kiln - Sponge Iron – 50 MT/Day & By Product – 15 MT/Day (Total Fixed Capital Investment: Rs. 484.59 Lacs.)	West Bengal Pollution Control Board
2	Consent to Establish (NOC) for Expansion Unit	20-04-2001	Memo No. 218/2N-2184/2001	2nd Rotary Kiln – Additional Sponge Iron - 50 MT/Day (Total Fixed Capital Investment: Rs. 310.52 Lacs.)	West Bengal Pollution Control Board
3	Consent to Establish (NOC)	27-07-2001	Memo No. 626/2N-2328/2001	3rd & 4th Rotary Kiln - Sponge Iron – 100 MT/Day & By Product-Coalchar – 15 MT/Day (Total Fixed Capital Investment: Rs. 854.60 Lacs.)	West Bengal Pollution Control Board
4	Consent to Establish (NOC) for Expansion Unit	29-01-2002	Memo No. 1126-2N-2517/2001	5th & 6th Rotary Kiln - Sponge Iron – 100 MT/Day & By Product-Coalchar – 15 MT/Day (Total Fixed Capital Investment: Rs. 498 Lacs.)	West Bengal Pollution Control Board
5	Consent to Establish (NOC)	21-10-2003	Memo No. 3458-2N-448/2003	7th Rotary Kiln – Sponge Iron - 1500 MT/Month & By Product-Coalchar – 450 Kgs/Month (Total Fixed Capital Investment: Rs. 293.92 Lacs.)	West Bengal Pollution Control Board

S. No.	Obtained Certificate Name	Date of Issue	Reference Number	Name of Units	Obtained from
6	Consent to Establish (NOC) for Existing Unit	24-07-2003	Memo No. 3122-2N-133/2003	12 MW Captive Power Plant (Total Fixed Capital Investment: Rs. 4600 Lacs.)	West Bengal Pollution Control Board
7	Consent to Establish (NOC) for Expansion Unit	11-10-2004	Memo No. 9420-2N-579/2003	Ferro Manganese – 1298 Ton/MonthSilico Manganese – 1215 Ton/MonthM.S. Ingot/Billet – 19800 Ton/Month, andCoal washery- Fresh Coal – 18000 Ton/Month (Total Fixed Capital Investment: Rs. 1634.80 Lacs.)	West Bengal Pollution Control Board
8	Consent to Establish (NOC) for change in ownership of the industry followed by change in name and style of the industry	11-11-2008	Memo No. 32-WPBA/RED (Bwn)/Cont. (332)/02	--	West Bengal Pollution Control Board
9	Consent to Establish (NOC) for Expansion Unit	11-02-2009	Memo No. 84-2N-75/2008(E)	One no. 30 TPH AFBC Boiler for 6.3 MW additional Power generation (The Gross Capital Investment: Rs. 1500 Lacs.)	West Bengal Pollution Control Board
10	Valid Consent to Operate (CTO) upto 2027	31-05-2022	Consent Letter No. CO131845 Memo No. 403-WPBA/RED (Bwn)/Cont (332)/2002	Ferro Mangenese – 1298 MT/MonthPower Generation – 18.3 MW/MonthSilico Mangenese – 1215 MT/MonthSponge Iron – 9040 MT/MonthWashed Coal – 17000 MT/Month	West Bengal Pollution Control Board

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

S. No.	Facilities	Existing Capacity	Proposed Capacity	Ultimate Capacity
1.	Coal Washery	2,16,000 TPA (1x50 TPH)	-	2,16,000 TPA (1x50 TPH)
2.	Iron ore Beneficiation Plant	-	6,00,000 TPA	6,00,000 TPA

S. No.	Facilities	Existing Capacity	Proposed Capacity	Ultimate Capacity
3..	Iron ore Pellet Plant	-	6,00,000 TPA	6,00,000 TPA
4.	DRI Plant	7 X 50 TPD * or 1,05,000 TPA	1X350 TPD + 1X500 TPD or 2,80,500 TPA	1X350 TPD + 1X500 TPD or 2,80,500 TPA (*The existing 7X50 TPD shall be phased out after the implementation of the proposed project)
5.	Ferro – Alloys Plant	2 X 7 MVA SAFs Ferro-Manganese – 15,576 TPA Silico Manganese – 14,580 TPA Total 30,156 TPA	Change of Product-Mix (Ferro-Chrome inclusion) Keeping the plant configuration unchanged	2 X 7 MVA SAFs Either Ferro Manganese - 30,156 TPA (capacity optimized) or Ferro Chrome – 24,000 TPA (capacity optimized) or Silico-chrome 15,840 TPA (capacity optimized) or Ferro-Silicon – 11,220 TPA or Silico Manganese- 29,160 TPA Total Ferro-Alloys production will never cross 30,156 TPA.
6.	Steel Melting Shop (Induction Furnace)	-	3,30,000 TPA (4 X 25 MT)	3,30,000 TPA (4 X 25 MT)
7.	Captive Power Plant	18.3 MW (8.3 MW WHRB ** + 10 MW AFBC)	40 MW (20 MW WHRB + 20 MW AFBC)	50 MW [20 MW WHRB + 30 MW (10 MW existing + 20 MW proposed) AFBC] **(**The existing 8.3 MW WHRB shall be phased out after the implementation of the proposed project)**

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

S. No	Raw Material	Annual Requirement (in TPA)			Source	Distance (in km)	Transportation		
		Existing	Proposed	Total			Internal	Rail	Road

S. No	Raw Material	Annual Requirement (in TPA)			Source	Distance (in km)	Transportation		
		Existing	Proposed	Total			Internal	Rail	Road
COAL WASHERY									
1	RoM Coal	216000	-	216000	Raniganj Coalfields			216000	
IRON ORE BENECIATION PLANT									
1	Iron Ore Fines	-	920000	920000	Barbil			920000	
IRON ORE PELLET PLANT									
1	Iron Ore Concentrate	-	600000	600000	In house plant	-	600000		
DRI PLANT									
1	Iron ore/Pellet	-	448800	448800	In house plant	-	448800		
2	Washed Coal	-	108000	108000	In house Coal Washery	-	108000		
3	Non-Coking Coal	-	144450	144450	Raniganj Coalfields			144450	
4	Dolomite	-	19635	19635	Jaipaiguri			19635	
CAPTIVE POWER PLANT									
1	Dolochar	-	102000	102000	In house	-	102000		
2	Coal	-	64168	64168	Raniganj Coalfields			64168	
3	Washery Rejects	-	108000	108000	In house Coal Washery	-	108000		
INDUCTION FURNACE									
1	Sponge Iron	-	280500	280500	In house	-	280500		
2	Pig Iron	-	76320	76320	Local Market				76320
3	Ferro Alloys	-	4950	4950	In house	-	4950		
4	Scraps	-	27720	27720	Local Market				27720
FERRO ALLOYS									
FERRO-MANGANESE :									
1	Manganese Ore	35825	30518	66343	Barbil			66343	
2	Coke	8175	5645	13820	Local Market	-			13820
3	Dolomite	3892	5623	9515	Jaipaiguri			9515	
SILICO-MANGANESE :									
1	Manganese Ore	25512	24060	49572	Barbil			49572	
2	Quartz	2190	3255	5445	Rajasthan / MP			5445	
3	Coke	9480	1116	10596	Local Market	-			10596
4	Dolomite	2190	2166	4356	Jaipaiguri			4356	
5	Fe-Mn slag	7296	7284	14580	In		14580		

S. No	Raw Material	Annual Requirement (in TPA)			Source	Distance (in km)	Transportation		
		Existing	Proposed	Total			Internal	Rail	Road
					house				
FERRO-CHROME									
1	Briquette	-	49368	49368	Local Market		-		49368
2	Friable	-	8712	8712	Orissa			8712	
3	Lam Coke	-	5412	5412	Local Market	-			5412
4	Anthracite Coal	-	1584	1584	Local Market				1584
5	Quartz	-	1848	1848	Rajasthan / MP			1848	
6	Magnesite	-	1584	1584	Local Market				1584
FERRO SILICON									
1	Quartz	-	21384	21384	Rajasthan / MP			21384	
2	Scrap	-	4158	4158	Local Market				4158
3	Coke	-	14256	14256	Local Market	-		-	14256
SILICO CHROME									
1	Cr Chips	-	9953	9953	Mines in Orissa			9953	
2	Coke	-	6508	6508	Local Market	-		-	6508
3	Charcoal	-	11197	11197	Local Market				11197
4	Quartz	-	22968	22968	Rajasthan / MP			22968	
TOTAL		**310560**	**3143142**	**3453702**			**1666830**	**1564349**	**222523**
Percentage (%)							**48.26**	**45.30**	**6.44**
No. of Rakes / Trucks / Dumpers per Year								**391 (1-2 Rakes per Day)**	**4450 (13 Trucks/ Dumpers per Day)**

15.9.9 The existing plant water requirement for operational unit is 1006 m^3/day. After implementation of the proposed expansion project, the existing plant water requirement will be 561 m^3/day (Since the existing 7x50 TPD DRI Plant and 8.3 MW WHRB shall be phased out after the implementation of the proposed project, 445 KLD will not be needed in future). The water requirement after the expansion project will be 1840 m^3 /day, out of which 1487m^3 /day of fresh water requirement will be obtained from the Asansol Durgapur Development Authority and the remaining requirement of 353 m^3 /day will be met from daily make-up water after treatment. The permission for drawl of water is obtained from Asansol Durgapur Development Authority vide Memo No. ADDA/ASN/ED/CN-2364(Pt-I)/607 dated 15.09.2022.

15.9.10 Existing power requirement is 14.8 MW out of which 10 MW will be obtained from the Captive Power Plant & rest from India Power Corporation Limited. The power requirement for the proposed project is estimated as 40.2 MW. The total power requirement is 52.7 MW (Since the existing 7x50 TPD DRI Plant and 8.3 MW WHRB shall be phased out after the implementation of the proposed project, 2.3 MW will not be needed in future), out of which 50 MW will be obtained from the Captive Power Plant & rest from India Power Corporation Limited.

15.9.11 Baseline Environmental Studies:

Period	1st March, 2022 to 31st May, 2022
AAQ parameters at 8 locations	• $PM_{2.5}$ = 19 - 47 µg/m^3 • PM_{10} = 58 - 89 µg/m^3 • SO_2 = 5 - 21 µg/m^3 • NO_2 = 13 - 39 µg/m^3 • CO = 0.143 - 1.142 mg/m^3
Incremental GLC level	• PM = 6.29 µg/m^3 (1.0 km in NE) • SO_2 = 6.29 µg/m^3 (1.0 km in NE) • NOx = 6.86 µg/m^3 (1.2 km in NE)
Ground water quality at 9 locations	• pH: 7.0 – 8.0, • Total Hardness: 159 – 194 mg/l, • Chlorides: 84 – 145 mg/l, • Fluoride: 0.24 - 0.52 mg/l, • Iron: 0.25 – 0.51 mg/l, • TDS: 342 – 540 mg/l
Surface water quality at 10 locations (2 locations at Damodar River & 8 locations for pond water)	**Damodar River Water** pH: 6.79 and 6.92, DO: 6.8 & 7.1 mg/l, BOD: 2 & 2 mg/l, COD: 8 & 11 mg/l, Fe: 0.14 & 0.15 mg/l, Coliform: 2400 - 2600 MPN/100ml, TDS: 185 & 202 mg/l, Total Hardness: 95 & 109 mg/l, Chloride: 26 & 29 mg/l **Pond Water** pH: 6.59 – 7.33, DO: 5.9 – 6.8 mg/l, BOD: 3 - 7 mg/l, COD: 11 - 27 mg/l, Fe: 0.13 – 0.26 mg/l, Coliform: 1100 - 2200 MPN/100ml, TDS: 225 – 316 mg/l, Total Hardness: 126 - 180 mg/l, Chloride: 51 – 86 mg/l
Noise levels	52.6 – 69.7 dBA for day time and 41.4 – 56.8 dBA for night time
Traffic assessment study findings	Existing Load (in PCU/day) : ❖13647 on NH2 near Mangalpur Industrial Complex ❖15942 on NH2 near Ukhra Andal Road ❖ 17607 on NH2 near Amrasota More Total Traffic Load During Operation of the Proposed Project (PCU/Day) : ❖14263 on NH2 near Mangalpur Industrial Complex ❖ 16558 on NH2 near Ukhra Andal Road ❖18223 on NH2 near Amrasota More As per IRC 73: 1980 code, Guidelines for Capacity of Highways (PCU/ day): 86,400 for NH2 near Mangalpur Industrial Complex, near Ukhra Andal

	Road and near Amrasota More The total traffic load during operation of the proposed project shall be well within the traffic capacity.
Flora and fauna	No Schedule -I Species observed in the study area.

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

Sl. No.	Type	Quantity in Tons/Year			Utilization
		Existing Units	Proposed Units	Total	
1	Middlings and Rejects from Coal Washery	1,08,000	-	1,08,000	Middlings and Rejects will be used in AFBC Boiler
2	Tailing from Beneficiation Plant	-	3,20,000	3,20,000	The dewatered tailings from iron ore beneficiation and the tailings cake shall be disposed off in the abandoned mines of ECL.
3	Dust from ESP and Bag Filters of Pellet Plant	-	2,345	2,345	To be reused in process
4	Dolochar from Sponge Iron Plant	-	1,02,000	1,02,000	100% to be used in FBC boiler of CPP
5	Slag from Ferro Alloy Plant (change of product mix)	28,700	Product Mix Change No Load Increase	28,700	The maximum slag generation shall be 28700 TPA considering 100% production. After metal recovery about 10% metal is recovered from the total slag and the balance 25830 TPA (as stone chips / road construction materials) shall be used for road construction & repairing / land filling purposes after TCLP test. Considering 3 m width & depth 30 inch (0.75 m) of the road and density of the slag as 2.5 ton/cum, 5625 T slag shall be consumed for 1.0 km stretch. Therefore, the entire quantity of slag generated in a year will be utilized for the construction of around 5 km roads. Besides, significant amount of slag will also be used for landfilling purposes

Sl. No.	Type	Quantity in Tons/Year			Utilization
		Existing Units	Proposed Units	Total	
					both inside & outside the project site.
6	Slag from Induction Furnaces	-	42,990	42,990	Slag from Induction Furnaces after metal recovery in metal recovery plant (slag crusher) will be used for Construction purpose.
7	End cuts, scales and scraps etc. from CCM	-	16,650	16,650	End cuts, scales and scraps etc. from CCM will be reused in the Induction Furnaces.
8	Fly Ash from CPP	45,414	1,05,379	1,50,793	Fly ash from AFBC boiler will used in Cement Plant and Brick Manufacturing Units.
9	Bottom Ash from CPP	11,353	25,290	36,643	Bottom ash to be utilised for brick making / landfilling purposes.

15.9.13 Public Consultation:

Details of advertisement given	30th January, 2021 in Bengali newspaper "Ei Somoy" and English, newspaper "The Times of India"
Date of public consultation	5th March, 2021 at 12.00 hrs.
Venue	Muralidhar Bhawan, NSB Road, near Anjana Cinema, Raniganj, Dist. - Paschim Bardhaman, West Bengal
Presiding Officer	Additional District Magistrate, Paschim Bardhaman
Major issues raised	❖ Generation of employment for the local people and youths with e ngagement of local female workers ❖ Steps to be taken to control environmental pollution especially N oise Pollution Device arising out of the project ❖ Development of new Roads in the surroundings of the upcoming project ❖ Safety about the labour/employee during contruction and commis sioning of the proposed expansion project ❖ Tree plantation inside and outside the plant premises ❖ Improvement of the present condition of Primary health centre ❖ Betterment of schooling facilities in the villages by giving aids to high school infrastructure development

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

Concerns raised	Physical Activity and	Particulars	YEAR OF IMPLEMENTATION	Total

during Public Hearing	Action Plan		1st Year	2nd Year	3rd Year	Expenditure (Rs. in Lakhs)
• Generation of employment for the local people and youths with engagement of local female workers	In the proposed project, top most priority will be given to the local people specially women of Baktarnagar 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 machineries for industries.	Physical Target (3 Years)	Construction of a 2 – room building (total carpet area: 1200 sq.ft.) with infrastructure development like installation of 4 sewing machines, 4 computer systems & 2 machines for making hand craft items along with necessary raw materials for training purpose.	-	-	43
		Budget in Lakhs	43	-	-	
• Steps to be taken to control environmental pollution especially Noise Pollution Device arising out of the project	• Adequate control measures like installation of ESP, Bag filters, dust suppression system, fume extraction system, sprinklers & stacks of adequate height at relevant places will be installed. • Air borne dust shall be controlled by mobile water tanker inside the plant premises. • Maintenance of air pollution control equipment shall be done at regular intervals. • All roads shall be paved on which movement of raw materials or products will take place inside the plant premises. • No waste water will be discharged outside the plant area. The plant is designed as a zero-discharge plant. The entire wastewater will be recirculated and recycled. • The equipment shall comply with the Statutory limit of 85 dB(A) (at 1 m. from the source). Noise Reduction Systems will be provided.	Physical Target	The physical Target for the entire activities shall be achieved in 3 years.			-
		Budget in Lakhs	Included in the EMP Cost.			
• Development of new Roads in the surroundings of the upcoming project	Construction of road with land (3 km) at Baktarnagar village.	Physical Target (1 year)	3 km road with land at Baktarnagar village	-	-	108
		Budget in Lakhs	108	-	-	

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1st Year	2nd Year	3rd Year	
• Safety about the labour/employee during construction and commissioning of the proposed expansion project	• All the plant employees will be forced to use needed safety gears. All contractor personnel and temporary staff will also be advised to use safety equipment. All the safety system will be as per the standards OHSAS 18001: 1999 / OHSAS 18002 / 2002. • All workers & staffs will be covered under ESI &/ Mediclaim subject to ceiling limit	Physical Target	It will be done on regular basis.			-
		Budget	Included in the EMP Cost.			
• Tree plantation inside and outside the plant premises	• The company has earmarked 11.48 hectares (28.4 acres i.e., 33% of 86 acres) of land for Green Belt Development within its plant site. Out of this 11.48 hectares of land for greenery, 2.2 hectares of land has already been developed within the plant premises where around 5,500 number of trees (@2500 trees per hectares) have been planted. Remaining 9.28 hectares will be utilized for green belt development in the plant area for proposed project where around 23,200 numbers of trees (@2500 nos. of tree per hectare) will be planted simultaneously within the commissioning period of the proposed project as per the CPCB guidelines in consultation with the DFO. Hence, there will be total 28,700 trees (Existing - 5,500 + Proposed - 23,200) come under greenbelt on 11.48 hectares of land after implementation of the proposed project.	Physical Target	The physical Target for the entire activities shall be achieved in 3 years.			-
		Budget	Greenbelt development inside the plant included in the EMP Cost.			
	Development of Parks and Tree Plantation Programme (3500 nos) in the nearby	Physical Target	The physical Target for the entire activities shall be achieved in 3 years			
			Development of 3 no. park along with 3000 nos.	-	-	

Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1st Year	2nd Year	3rd Year	
	villages will be done and distribution of saplings will be done at Baktarnagar and school students in consultsation with local civic bodies.		tree plantation & distribution of saplings.			
		Budget in Lakhs	40	-	-	40
• Improvement of the present condition of Primary health centre	• Periodic health check-up programme will be conducted by arranging camps through Primary Health Care Centers at Baktarnagar and medicines will be distributed to the economically needy people.	Physical Target : every year	Health checkup camps shall be organized on half-yearly basis, in 5 nearby villages for general body, eyes, blood test and donation along with mass vaccination for polio, dengue, typhoid, malaria, etc. For this purpose, one doctor along with 2 – 3 assistants shall be deputed. This will come under CSR activities of the company.			-
		Budget	Shall be included in the CSR budget of the company			
• Betterment of schooling facilities in the villages by giving aids to high school infrastructure development	• Development of building infrastructure, playground, class rooms, library facilities and providing computers in the Local Baktarnagar School.	Physical Target	Renovation & repairing of school building and constructing 4 extra classrooms in the school, Supplying desks, benches, chairs, blackboards. Development of library and providing books and Providing 10 nos. of computers to the school	-	-	
		Budget in Lakhs	35	-	-	35
Total Budget - Public Hearing related: Rs. 226 Lakhs						
Note: Project Proponent has undertaken to develop two villages namely Baktarnagar and Madanpur.						

Need based Activities	Particulars	Year of Implementation	Total Expenditure (Rs. in Lakhs)
		1st Year	
Providing Dustbins (300 nos @Rs. 1000/- per unit) in nearby villages (under Swachh Bharat Scheme) for waste segregation and handling	Physical Target:	300 nos. Dustbins	3
	Budget : in Lakhs	3	
Rain Water Harvesting ponds in nearby villages (5 nos. @ Rs. 5 Lakhs per pond).	Physical Target:	5 Rain Water Harvesting Ponds	25
	Budget : in Lakhs	25	
Construction of 14 no of ground water Recharging system for rainwater in nearby villages (@2.5 lakhs per system).	Physical Target:	14 no. of ground water Recharging system	35
	Budget : in Lakhs	35	
Development of Drinking Water Infrastructure - 12 numbers Tube well / Hand Pump in nearby villages (@ Rs. 50,000/- per Tube Well / Hand Pump).	Physical Target:	12 nos. Tube well	6
	Budget: in Lakhs	6	
Street Lighting (Solar) provision at suitable public places in and around Baktarnagar village (90 numbers, @ Rs. 20,000/- per LED Light)	Physical Target:	Providing 90 nos. Solar light	18
	Budget in Lakhs	18	
Total Budget - Need based activities : Rs. 87 Lakhs			
Overall Budget (Pubic Hearing related + Need based Activities): Rs. 313 Lakhs			

15.9.14 The capital cost of the project is Rs. 392 Crores and the capital cost for environmental protection measures is proposed as Rs. 40.0 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 3.66 Crores. The employment generation from the proposed project is 900 persons. The details of cost for environmental protection measures is as follows:

S. No.	Description of Item	Proposed (Rs. in Crores)	
		Capital Cost	Recurring Cost
i.	Cost of Air Pollution Control Systems	25.0	2.50
ii.	Cost of Water conservation & Pollution Control	2.2	0.22
iii.	Cost of Solid Waste Management System	1.3	0.13
iv.	Green belt development	0.26	-
v.	Noise Reduction Systems	1.2	0.12
vi.	Occupational Health Management	2.5	0.25
vii.	Risk Mitigation & Safety Plan	2.1	0.21
viii.	Environmental Management Department	2.31	0.23
ix.	Total Budget - Public Hearing related	3.13	-
TOTAL		**40.0**	**3.66**

15.9.15 11.48 hectares (28.4 acres i.e., 33% of 86 acres) of land has been earmarked for Green Belt Development within its plant site. Out of this 11.48 hectares of land for greenery, 2.88 hectares (7.12 Acres) of land has already been developed within the plant premises where around 7,203 number of trees (@2500 trees per hectares) have been planted. Remaining 8.6 hectares (21.25 Acres) will be utilized for green belt development in the plant area for proposed project where around 21,509 numbers of trees (@2500 nos. of tree per hectare) will be planted simultaneously within the commissioning period of the proposed project as per the CPCB guidelines in consultation with the DFO. Hence, there will be total 28,712 trees (Existing - 7,203 + Proposed - 21,509) under greenbelt on 11.48 hectares of land after implementation of the proposed project.

15.9.16 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.

Certified compliance report from Regional Office

15.9.17 The Status of compliance of CTO was obtained from West Bengal Pollution Control Board vide Memo no. 572(I)4A/18/2008(Pt.-V) dated 25.05.2022 in the name of M/s Jai Balaji Industries Ltd. As per the report, the conditions stipulated in the CTO have been complied.

Written representations:

15.9.18 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 18.10.2022 through email dated 18.10.2022 submitted the following information (also updated in paragraphs above):

- Project Proponent has undertaken to develop two villages namely Baktarnagar and Madanpur.
- PP undertakes development of 10 nos. of ponds nearby project location.
- Revised Action Plan for addressing the issues raised during the Public Hearing and social need based assessment.

Deliberations by the Committee

15.9.19 The Committee noted the following:

1. The instant proposal is for expansion of existing Steel Plant by installation of 0.6 MTPA Iron Ore Beneficiation Plant, 0.6 MTPA Pelletization Plant, Sponge Iron Plant with 1x350 TPD + 1x500 TPD DRI Kilns, product mix change of existing 2x7 MVA Submerged Arc furnaces, 4x25 T Induction Furnaces & 40 MW capacity Captive Power Plant.

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

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

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

5. The existing project was implemented after getting NOCs from WBPCB in the year 1999, 2001,2001, 2002, 2003, 2004, 2008 and 2009 as per the prevailing notification (in the year 1994) of MoEF&CC, as per which No Environmental Clearance (EC) was required for this project.

6. The total project area is 34.8 ha which is under the possession of the Company. The expansion will take place within the existing land.

7. The nearest industrially developed town is Raniganj and Andal, which are located at around 2.5 km in north-west direction and 6.0 km in south-east direction respectively w.r.t. the project site.

8. 11.48 hectares (28.4 acres i.e., 33% of 86 acres) of land has been earmarked for Green Belt Development within its plant site. Out of this 11.48 hectares of land for greenery,

2.88 hectares (7.12 Acres) of land has already been developed within the plant premises where around 7,203 number of trees (@2500 trees per hectares) have been planted. Remaining 8.6 hectares (21.25 Acres) will be utilized for green belt development in the plant area for proposed project where around 21,509 numbers of trees (@2500 nos. of tree per hectare) will be planted simultaneously within the commissioning period of the proposed project as per the CPCB guidelines in consultation with the DFO. Hence, there will be total 28,712 trees (Existing - 7,203 + Proposed - 21,509) under greenbelt on 11.48 hectares of land after implementation of the proposed project. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP that the green belt development shall be completed within a year.

9. The water requirement after the expansion will be for the proposed project is estimated as 1840 m^3 /day, out of which 1487 m^3 /day of fresh water requirement will be obtained from the Asansol Durgapur Development Authority and the remaining requirement of 353 m^3 /day will be met from daily make-up water after treatment.

10. There are around 10 nos. of ponds nearby project location. Damodar River is at a distance of 4.5 km in SW direction from 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.

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

12. The committee deliberated 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 action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.

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

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

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

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

Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

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

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

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

vi. Tar shall be recovered from producer gas and shall be sold to registered processors and Phenolic water from PGP shall be treated for phenol, tar and cyanide.

vii. SAF shall be closed type and fourth hole extraction system shall be included for fume control from these furnaces.

viii. 85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil or Mixed BF/CO gas/Producer gas.

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

x. FeCr slag after jigging shall be subjected to TCLP test to ensure its utilization or disposal in TSDF.

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

xii. The company shall also undertake rain water harvesting measures as per the plan submitted and reduce water dependence from the outside source.

xiii. Water requirement of 1840 m^3 /day, shall be met from the Asansol Durgapur Development Authority (1487 m^3 /day) and the remaining requirement of 353 m^3 /day from daily make-up water after treatment. No ground water abstraction is permitted.

xiv. 10 nos. of ponds and Damodar River nearby the project site shall be conserved. 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.

xv. Air cooled condensers shall be used in the Power plant. 100% consumption of Dolo char in FBC based boiler.

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

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

xviii. Three tier Green Belt shall be developed in atleast 33% of project area 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.

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

xx. The coal dust to be measured at coal handling areas, ball mills, furnace charging areas through personal and area monitoring and to be compared and it should be within 2 mg/m^3, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.

xxi. The proposed project shall be designed as "Zero Liquid Discharge" Plant. There shall be no discharge of effluent from the plant. Domestic waste water will be treated in STP and treated water shall be re-used for greenbelt development and plantation and dust suppression.

xxii. All internal road and connecting road from project site to main highway shall be developed and maintained with suitable Million Axle Standard (MSA) as per the traffic load due to existing and proposed project. All plant roads shall be paved and industrial vacuum cleaners shall be used to clean the roads regularly.

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. As committed to adopt two nearby village namely Baktarnagar and Madanpur, project proponent shall prepare and implement a robust plan to develop them into model villages in next 10 years.

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

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

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

B. General conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 06 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

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

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

v. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
vi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
vii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
ix. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).
x. Land-based APC system shall be installed to control coke pushing emissions.
xi. Monitor CO, HC and O2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.
xii. Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.
xiii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
xiv. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

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

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

i. An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/l shall be installed to use slag as river sand in construction industry.
ii. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.
iii. Used refractories shall be recycled as far as possible.
iv. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
v. 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.
vi. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

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

VIII. Public hearing and Human health issues

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

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

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

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.

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

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

X. Miscellaneous

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

***

Agenda No. 15.10

15.10 Installation of 9,00,000 TPA Pellet Plant, Expansion of Sponge Iron Plant 72,000 TPA (2 x 100 TPD) to 1,87,500 TPA (by addition of 1 x 350 TPD), and Induction Furnace to manufacture 1,98,000 TPA M.S. Billets (4 x 15T), Rolling Mill to manufacture 1,94,000 TPA TMT Bars, 30 MW Power Plant (12 MW WHRB and 18 MW AFBC) and 2 x 6 MVA Submerged Arc Furnace to manufacture Ferro Alloys (39,204 TPA Ferro Manganese OR 18,669 TPA Silico Manganese OR 39,204 TPA Pig Iron OR 9801 TPA Ferro Silicon) by M/s Chaman Metallics Limited, located at A-26, MIDC, Survey No. 183 & 184, Tadali Chandrapur, Maharashtra– Consideration of Environmental Clearance

[Proposal No.; IA/MH/IND/290932/2005; File No. IA-J-11011/212/2020-IA-II(I)]
[Consultant: Pollution & Ecology Control Service; valid upto 16.10.2022]

15.10.1 M/s. Chaman Metallics Limited has made an online application vide proposal no. IA/MH/IND/290932/2005 dated 30th September 2022 along with copy of EIA/EMP report, Form - 2 and certified EC compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

15.10.2 Name of the EIA consultant: M/s Pollution & Ecology Control Service [Sl. No. 75, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0165 ; valid upto 16.10.2022, Rev. 25, Sept 05, 2022].

Details submitted by Project proponent

15.10.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	Validity of ToR
18th September 2020	Standard TOR	Terms of Reference	26th October 2020	25th October 2024

15.10.4 The project of M/s Chaman Metallics Limited located in Plot No. A-26, MIDC Tadali, Tadali Growth Centre and Survey No. 183 & 184, Tadali, District Chandrapur, Maharashtra is for installation of 9,00,000 TPA Pellet Plant, Expansion of Sponge Iron Plant 72,000 TPA (2 x 100 TPD) to 1,87,500 TPA (by addition of 1 x 350 TPD), and Induction Furnace to manufacture 1,98,000 TPA M.S. Billets (4 x 15T), Rolling Mill to manufacture 1,94,000 TPA TMT Bars, 30 MW Power Plant (12 MW WHRB and 18 MW AFBC) and 2 x 6 MVA Submerged Arc Furnace to manufacture Ferro Alloys (39,204 TPA Ferro Manganese OR 18,669 TPA Silico Manganese OR 39,204 TPA Pig Iron OR 9801 TPA Ferro Silicon).

15.10.5 Environmental Site Settings:

S. No.	Particulars	Details	Remarks

<table>
<tr><td>i.</td><td>Total land</td><td>28.17 ha [Private: 2.29 ha; MIDC Land: 25.8825 ha]</td><td>Land use: industrial</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Total land is in possession.</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>Yerur</td><td>0.5</td><td>S</td></tr></table></td><td>No R&R involved.</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of <u>all corners</u> of the project site.</td><td><table><tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr><tr><td>A</td><td>19°59'52.76"N</td><td>79°11'5.43"E</td></tr><tr><td>B</td><td>19°59'56.33"N</td><td>79°10'40.15"E</td></tr><tr><td>C</td><td>19°59'48.42"N</td><td>79°10'39.22"E</td></tr><tr><td>D</td><td>19°59'48.77"N</td><td>79°10'33.58"E</td></tr><tr><td>E</td><td>19°59'45.17"N</td><td>79°10'33.25"E</td></tr><tr><td>F</td><td>19°59'44.63"N</td><td>79°10'38.59"E</td></tr><tr><td>G</td><td>19°59'41.99"N</td><td>79°11'3.64"E</td></tr></table></td><td>-</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>212m 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: None</u>
<u>Study area</u>
<table><tr><th>Water body</th><th>Distance</th><th>Direction</th></tr><tr><td>Sarai Nala</td><td>4.0 Km</td><td>SSW</td></tr><tr><td>Wardha River</td><td>8.0 Km</td><td>WSW</td></tr><tr><td>Erai River</td><td>8.0 Km</td><td>ESE</td></tr><tr><td>Kantya Nala</td><td>8.5 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:
Bhandak R F: 9.0 Km (NE)</td><td>-</td></tr>
<tr><td>ix.</td><td>Project Site Location in CPA/SPA</td><td>The Project site is located in Chandrapur District which is declared as Critically Polluted Area. PP propose to comply all the conditions given in MOEF & CC issued letter No-Q16017/38/2018-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 Report.</td><td>-</td></tr>
</table>

15.10.6 The existing project was accorded environmental clearance by Environment Department, Government of Maharashtra vide lr.no. ENV(NOC)2005/66/CR.7/D.I. dated 20th April 2005 for production of Sponge Iron (9000 MT/M), Char (By Product) (1350 MT/M) and Rolled Steel Products (6000 MT/M) in the name of M/s. Chaman Metallics Pvt. Ltd. RoC Certificate

dated 22.04.2008 obtained from Ministry of Corporate Affairs w.r.t. Change of name from Chaman Metallics Private Limited to Chaman Metallics Limited. Consent to Operate for the existing unit was accorded by Maharashtra Pollution Control Board vide lr. No. Format1.0/APAE Section/UAN No.0000127412/CR/2207001140 dated 22nd July 2022 in the name of M/s. Chaman Metallics Limited. The validity of CTO is up to 28th February 2024.

15.10.7 Implementation status of the existing EC

Sr. No.	Facilities	Units	As per EC dated 20th April 2005	Implementation status	Production as per CTO
1.	Sponge Iron plant	TPM	9000	6000	6000
2.	Char (By Product)	TPM	1350	900	-
3.	Rolled Steel Products	TPM	6000	6000	-

15.10.8 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 20th April 2005								Proposed Units		Final (Existing + Proposed)	
		Total (A+B)		Implemented (A)		Unimplemented (B)		As per CTO					
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
1.	Sponge Iron Plant	3x100 TPD Kiln	108000 TPA	2x100 TPD Kiln	72000 TPA	1x100 TPD Kiln	36000 TPA	2x100 TPD Kiln	72000 TPA	1X350 TPD	1,15,500 TPA	(2 x 100 TPD) & (1 x 350 TPD)	1,87,500 TPA
2.	Char (By-product)	-	16200 TPA	-	10800 TPA	-	5400 TPA	-	10800 TPA	-	9240 TPA	-	15000 TPA
3.	Rolled Steel Product	-	72000 TPA	-	-	-	72000 TPA	-	-	-	-	-	-
4.	Pellet Plant	-	-	-	-	-	-	-	-	-	9,00,000 TPA	-	9,00,000 TPA
5.	Steel Melting Shop	-	-	-	-	-	-	-	-	4 x 15 T	1,98,000 TPA	4 x 15 T	1,98,000 TPA
6.	Rolling Mill	-	-	-	-	-	-	-	-	-	1,94,000 TPA	-	1,94,000 TPA
7.	Power Plant	-	-	-	-	-	-	-	-	-	30 MW (12 MW WHRB and 18 MW AFBC)	-	30 MW (12 MW WHRB and 18 MW AFBC)
8.	Ferro Alloys Unit	-	-	-	-	-	-	-	-	2 x 6 MVA	39,204 TPA Ferro Manganese OR 18,669 TPA Silico Manganese OR 39,204 TPA Pig Iron OR 9801 TPA Ferro Silicon	2 x 6 MVA	39,204 TPA Ferro Manganese OR 18,669 TPA Silico Manganese OR 39,204 TPA Pig Iron OR 9801 TPA Ferro Silicon

S. No.	Plant Equipment/ Facility	Existing facilities as per EC dated 20th April 2005								Proposed Units		Final (Existing + Proposed)	
		Total (A+B)		Implemented (A)		Unimplemented (B)		As per CTO					
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
9.	Fly Ash Brick Plant	-	-	-	-	-	-	-	-	-	1,00,000 Nos/day	-	1,00,000 Nos/day

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

S. No.	Raw Material	Quantity required Tonnes per annum			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Expansion	Total			
Pellet Plant							
1.	Iron Ore Fines	-	936000	936000	Gadchiroli or odisha or Karnataka	100-900Km	Rail/Road
2.	Bentonite / Binder	-	9000	9000	Local Market	100 km	Road
3.	Lime Stone / Dolomite	-	14400	14400	Local Market	100 km	Road
4.	Green Ball Moisture (11%)	-	99000	99000	-	-	-
5.	Coal (For Gasifier)	-	128865	128865	Local Market/Imported	100 Km	Road
Sponge Iron Plant							
6.	Pellet	1,04,400	2,71,875	3,76,275	Inhouse	-	Conveyor
7.	Coal	72,000	1,87,500	2,59,500	Local Market/ Imported	100 Km	Rail/Road
8.	Dolomite	2,160	5625	7,785	Local Market	100 km	Road
SMS							
9.	Sponge Iron	-	158400	158400	Inhouse	-	Conveyor
10.	Scrap	-	39600	39600	Local Market	100 km	Road
11.	Flux	-	3960	3960			
12	Silico Manganese	-	5940	5940	Inhouse /Local Market	-	Conveyor
Rolling Mill							
13.	Rolling Mill capacity of 1,94,000 TPA (Direct hot charging route)	-	1,98,000	1,98,000	Inhouse	-	Conveyor
Power Plant							

S. No.	Raw Material	Quantity required Tonnes per annum			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Expansion	Total			
14.	Coal	-	1,53,000	1,53,000	Local Market/Imported	100 Km	Rail/Road
15.	Dolachar	-	15,000	15,000	Inhouse	-	Conveyor
Ferro Manganese							
16.	Manganese Ore	-	82328	82328	Local Market	100 Km	Road
17.	Coke	-	31363	31363	Local Market	100 Km	Road
18.	Dolomite	-	9801	9801	Local Market	100 Km	Road
19.	Carbon Paste	-	1177	1177	Local Market	100 Km	Road
20.	Quartz	-	3920	3920	Local Market	100 Km	Road
Silico Manganese							
21.	Manganese Ore	-	29870	29870	Local Market	100 Km	Road
22.	Coke	-	14935	14935	Local Market	100 Km	Road
23.	Dolomite	-	4667	4667	Local Market	100 Km	Road
24.	Carbon Paste	-	560	560	Local Market	100 Km	Road
25.	Ferro Slag	-	13068	13068	Inhouse	-	Conveyor
Ferro Silicon							
26.	Quartz	-	18132	18132	Local Market	100 Km	Road
27.	Coke	-	11761	11761	Local Market	100 Km	Road
28.	Mill Scale	-	4901	4901	Local Market	100 Km	Road
29.	Carbon paste	-	1764	1764	Local Market	100 Km	Road
Pig Iron							
30.	Mill Scale	-	3920	3920	Local Market	100 Km	Road
31.	Iron ore Sinter	-	39204	39204	Gadchiroli or odisha or Karnataka	100-900Km	Rail/Road
32.	Quartz	-	1176	1176	Local Market	100 Km	Road
33.	Dolomite/Limestone	-	13721	13721	Local Market	100 Km	Road
34.	Pearl coke	-	9017	9017	Local Market	100 Km	Road
35.	Steam coal	-	20386	20386	Local Market	100 Km	Road
36.	Fluorospar	-	1568	1568	Local Market	100 Km	Road
37.	Electrode Paste	-	588	588	Local Market	100 Km	Road

15.10.10 The existing water requirement is 258 m^3 /day, water requirement is obtained from MIDC. The water requirement for the proposed project is estimated as 3400 m^3 /day, is obtained from MIDC and MIDC has given in principal approval is available.

15.10.11 Total Power required for existing and proposed expansion project is 32MW. Power will be supplied from own captive power plant and MSEDCL.

15.10.12 Baseline Environmental Studies:

Period	Parameters 15 September 2020 To 15 December 2020

<table>
<tr><th>Period</th><th>Parameters
15 September 2020 To 15 December 2020</th></tr>
<tr><td>AAQ parameters at 8 Locations (min and max)</td><td>• $PM_{2.5}$ = 22.2 To 38.1 µg/m^3
• PM_{10} = 37.7 To 82.2 µg/m^3
• SO_2 = 9.7 to 35.6 µg/m^3
• NOx =13.4 To 39.9 µg/m^3
• CO = BDL</td></tr>
<tr><td>Incremental GLC level</td><td>• PM_{10} = 2.24 µg/m^3 (Level at 0.8 km in SE Direction)
• SO_2 = 3.35 µg/m^3 (Level at 0.5 km in SE Direction)
• NOx = 1.93 µg/m^3 (Level at 0.8 km in SE Direction)
• CO = NIL</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>pH: 7.7 to 8.2, Total Hardness: 242 to 1052 mg/l,
Chlorides: 47.1 to 501 mg/l, Fluoride: 0.0 to 1.32 mg/l. Heavy metals: BDL</td></tr>
<tr><td>Surface water quality at 6 locations</td><td>pH: 7.3 to 7.9; DO: 6.4 to 7.5 mg/l and BOD: <3.0 mg/l. COD from 4.0 to 12.0 mg/l</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>39.6 to 51.4 for the day time and 37.6 to 43.9 for the Night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>• Traffic study has been conducted at National Highway which is approximately 3 km from the plant site.
• Transportation of raw material, fuel & finished product will be done 40 % by road.
• Existing PCU is 1335.5 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>1335.5</td><td>10000</td><td>0.13</td><td>A-Very Good</td></tr>
</table>
After Expansion
<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>2361.5</td><td>10000</td><td>0.23</td><td>B-Good</td></tr>
</table>
* Note: Capacity as per IRC-73:1980 Guide line for capacity for roads.

Conclusion: The level of service will B-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>

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

Solid Waste	Quantity (TPA)	Utilization
Pellet Plant (Gasifier)		
Ash Generation	51546	Brick Manufacturing
Tar Generation	3600	Utilization in kilns of pellet plant as secondary source of fuel
Sponge iron plant		
Dolachar	15,000	In-house Consumption
ESP Dust	13,125	It will be used for brick manufacturing and land filling
SMS & Rolling Mill		

Solid Waste	Quantity (TPA)	Utilization
Slag	7920	Slag Crusher unit will be installed. After crushing slag and removal of iron particle will be used for Brick Manufacturing.
Tail Cuttings	4000	Will be reused in Induction Furnace.
CPP		
Fly Ash	45900	Land filling / leveling and used in brick manufacturing unit.
Submerged Arc Furnace		
Ferro Manganese Slag	39204	34% of Ferro Manganese slag will be used in manufacturing of Silico Manganese and balanced will be sold to Cement Plants. Slag from ferro alloys plant Will be sent to cement plant, Used for road making; , and used in own Fly Ash Brick making unit
Silico Manganese slag	18669	Slag will be used in Road making and for Brick manufacturing by blending with fly ash.
Ferro Silicon Slag	1960	Will be given to Cast iron foundries
Pig Iron Slag	15681	Slag will be used for Brick manufacturing by blending with fly ash.
Dust from Bag Filters	650	It will be used for brick manufacturing

15.10.14 Public Consultation:

Details of advertisement given	19th June 2021
Date of public consultation	9th July 2021
Venue	Project Site (Plot No. A-26, Tadali MIDC and Survey No. 183 & 184, Tadali Chandrapur Maharashtra)
Presiding Officer	District Collector Chandrapur
Major issues raised	• Dust Problem in the area • Employment to local people • CSR Funds • Health Camps

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

A. CER Activities in the Villages in Study Area

S. No.	Physical activity and action plan		Year of implementation (Budget in Rs in Lakhs)			Total Expenditure (Rs. in Lakhs)
	Name of the Activity		1st	2nd	3rd	

S. No.	Physical activity and action plan		Year of implementation (Budget in Rs in Lakhs)			Total Expenditure (Rs. in Lakhs)
	Name of the Activity		1st	2nd	3rd	
1.	Plumbing work in existing toilets	Physical Nos. and Village	In village Yerur and Sonegaon	In village Tadali and Shakarwahi	In village Morwa & Musra	15
		Budget in Lakhs	5	5	5	
2.	Providing LED Street lighting with solar panels	Physical Nos. and Village	In village Shakarwahi	In village Yerur and Sonegaon	In village Tadali and Morwa	25
		Budget in Lakhs	5	10	10	
3.	Provision of Ambulance	Physical Nos. and Village	Ambulance will be provided in the Yerur village health centre.			10
		Budget in Lakhs	10			
4.a.	Sports Kits for schools	Physical Nos. and Village	In village Yerur	In village Sakharwahi	In village Sonegaon	15
		Budget in Lakhs	1	1	1	
4.b.	Plantation in the School	@100 Rs. Per sapling	2	2	2	
4.c.	Provision of Computers		2	2	2	
5.	RWH pits	Physical Nos. and Village	In village Morwa	In village Yerur and Sonegaon	In village Musra and Shakarwahi	30
		Budget in Lakhs	10	10	10	
6.	Primary Health Centre	Physical Nos. and Village	Primary Health Centre will be maintain at main gate of factory premises and providing Medical camp to nearby Villages.			45
		Budget in Lakhs	15	15	15	
8.	Drinking water facilities by borewells	Physical Nos. and Village	In village Shakarwahi & Tadali	In village Morwa and Sonegaon	In village Musra and Yerur	15
		Budget in Lakhs	5	5	5	
	Total expenditure for Adopted Village Development					**155 Lakhs**

B. CER Activities in the Villages in Study Area

PP confirmed that they will adopt the 2 nos. of villages namely Yerur and Sakharwahi for taking up developmental activities. The main objective of the adopting the villages is to develop the adopted villages and plan integrated development for them, which would include infrastructure development, Education, Plantation etc.

S. No.	Activities (Year 2022-2024)	Proposed Expenditure and Activities (All figures in Rs. Lakhs)		
		Yerur Village	Sakharwahi Village	Total
1.	Plan to develop plastic waste collection and segregation facilities in both the villages as well as to support local people to develop a plastic waste recycling facility in nearby area.	25	25	50
2.	Community RO project (looking at the high TDS 30 and Hardness of water)	30	30	60
3.	Model Anganwadi - Improvement in infrastructure, basic amenities & teaching learning materials in Anganwadi centers.	25	25	50
	2000 Tress will be planted in both the villages.	5	5	10
	Providing the learning Material to Zilla Prasad 5 School in both Villages.	5	5	10
	Finances for equipment required by Women SHG.	10	10	20
Expenditure for Adopted Village Development (B)				**200 Lakhs**
Total Expenditure in CER (A+B) = (155+200)				**355 Lakhs**

15.10.15 Existing capital cost of project was 46 Crores. The capital cost of the proposed project is Rs. 455 Crores and the capital cost for environmental protection measures is proposed as Rs. 28.9 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 2.613 Crores. The total employment generation from the project is 1200- 1500 nos. of people. The details of cost for environmental protection measures is as follows:

S.No.	Particulars	Capital Cost (in Crores Rs.)	Operation and Maintenance (in Crores Rs./Annum)
Proposed EMP cost for Air Pollution Control			
1.	ESP with stack for Sponge Iron Plant (1 No. with 4 field)	6	0.6
2.	ESP with stack for Pellet Plant (1 No. with 4 field)	6	0.6
3.	ESP with stack for Power Plant (1 No. with 4 field)	6	0.6
4.	Bag filter with stack for SMS (2 No. with Teflon Bags)	1	0.2
5.	Bag filter with Fourth Hole	2	0.2

S.No.	Particulars	Capital Cost (in Crores Rs.)	Operation and Maintenance (in Crores Rs./Annum)
	Technology (1 No. with Teflon Bags)		
Proposed EMP cost for Water Pollution Control			
6.	ETP for Industrial Water Treatment	0.75	0.03
7.	STP for Domestic Water Treatment	0.60	0.03
8.	Wheel washing System (1 No.)	0.05	0.003
9.	Dust Sweeping Machine and Water Sprinkler	1	0.05
10.	Rain Water Harvesting	2.5	0.1
11.	Environmental Monitoring (CAAQMS and online stack monitoring system)	1	0.06
12.	Solid Waste Management	1	0.1
13	Green Belt Development	1	0.04
14	Funds for social welfare as per OM dated 30.09.2020	1.55	2% of net profit per year as per Ministry of Company Act
	Total	**30.45**	**2.613**

15.10.16 Existing green belt has been developed in 8.45 ha. area which is about 30% of the total project area of 28.17 ha., 10162 nos. of trees are planted in 2019-2020 and 6868 nos. survived till date. Proposed greenbelt will be developed in 2.88 ha which is about 10% of the total project area. Thus total of 11.33 ha. area (40% of total project area) will be developed as greenbelt. 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. Total no. of 21457 saplings will be planted and nurtured in 11.33 hectares within a year.

15.10.17 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

15.10.18 The Status of compliance of earlier EC was obtained from Regional Office, Nagpur vide letter no. EC-1368/RON/2021-NGP/10369, dated 17.11.2021 in the name of M/s. Chaman Metallics Limited. The Action Taken Report on the non/partially complied conditions was submitted by M/s. Chaman Metallics Limited to RO, Nagpur vide letter No. Nil dated 19.09.2022. RO,

Nagpur has review the same and has issued closure report vide letter of even no. dated 29th September 2022. The observations are as follows:

Sl. No.	Observations made in CCR dated 17.11.2021	Compliance Status as on 21.09.2022
i	**Condition No. 9:** PP does not have Online Continuous Emission Monitoring System (OCEMS)	**Complied** PP has installed Online Continuous Emission Monitoring System (OCEMS) which is connected to the CPCB server. The photographs of the same and screenshot of the dash board are submitted.
ii	**Condition No. 15:** Greenbelt developed in and around the plant was not satisfactory. Even internal roads were not proper need more efforts.	**Complied** Total project area of the plant is 28.1725 ha. Out of the total area, green belt has been developed in 30% i.e. 8.45 ha and remaining development work has been proposed to undertake on 2.88 ha. After this, the total greenbelt will be 11.3 ha i.e. 40% of the total plot area. PP informed that this remaining plantation will be completed before 2023 Monsoon. Copy of saplings procurement from agencies are submitted. Tarring work of internal roads has been completed.

Written representations:

15.10.19 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 19.10.2022 through email dated 19.10.2022 submitted the following information (also updated in paragraphs above):

- Revised Action Plan for addressing the issues raised during the Public Hearing and social need based assessment. PP also confirmed that they will adopt the 2 nos. of villages namely Yerur and Sakharwahi for taking up developmental activities. The main objective of the adopting the villages is to develop the adopted villages and plan integrated development for them, which would include infrastructure development, Education, Plantation etc. The same is updated in para 15.10.14 above.
- Project Proponent submitted the RoC Certificate dated 22.04.2008 obtained from Ministry of Corporate Affairs w.r.t. Change of name from Chaman Metallics Private Limited to Chaman Metallics Limited.
- Traffic Analysis Study Report concluding that the incremental traffic due to existing and proposed expansion project would not exceed 08 trucks per hour and would no significant changes on the traffic load situation at project site road.

Deliberations by the Committee

15.10.20 The Committee noted the following:

1. The instant proposal is for installation of 9,00,000 TPA Pellet Plant, Expansion of Sponge Iron Plant 72,000 TPA (2 x 100 TPD) to 1,87,500 TPA (by addition of 1 x 350 TPD), and Induction Furnace to manufacture 1,98,000 TPA M.S. Billets (4 x 15T), Rolling Mill to manufacture 1,94,000 TPA TMT Bars, 30 MW Power Plant (12 MW WHRB and 18 MW AFBC) and 2 x 6 MVA Submerged Arc Furnace to manufacture Ferro Alloys (39,204 TPA Ferro Manganese OR 18,669 TPA Silico Manganese OR 39,204 TPA Pig Iron OR 9801 TPA Ferro Silicon).

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 environmental clearance by Environment Department, Government of Maharashtra vide lr.no. ENV(NOC)2005/66/CR.7/D.I. dated 20th April 2005 for production of Sponge Iron (9000 MT/M), Char (By Product) (1350 MT/M) and Rolled Steel Products (6000 MT/M) in the name of M/s. Chaman Metallics Pvt. Ltd. RoC Certificate dated 22.04.2008 obtained from Ministry of Corporate Affairs w.r.t. Change of name from Chaman Metallics Private Limited to Chaman Metallics Limited.

6. The Project site is located in Chandrapur District which is declared as Critically Polluted Area. PP propose to comply all the conditions given in MOEF & CC issued letter No-Q16017/38/2018-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 Report. The EAC deliberated the action plan on mitigation measures on CEPI and found in order.

7. The total project area is 29.17 ha. Land has already been acquired and under the possession of the company.

8. The nearest habitation to plant is Yerur which is at distance of 0.5 Km from the boundary of the plant in the southern direction. The EAC deliberated and advised for dense plantation towards the villages (shelter belt comprising of total of 6 rows of 2x2 m plantation) and socio-economic development of the villages.

9. 3658 m^3/day of water requirement for the existing & proposed expansion project will be obtained from MIDC.

10. Sarai Nala (4 km, SSW), Wardha River (8 km, WSW), Erai River (8 km, ESE) and Kantya Nala (8.5 km, NE) are flowing within 10 Km. radius of the plant 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.

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

12. The EAC noted that existing green belt has been developed in 8.45 ha. area which is about 30% of the total project area of 28.17 ha., 10162 nos. of trees are planted in 2019-2020 and 6868 nos. survived till date. Proposed greenbelt will be developed in 2.88 ha which is about 10% of the total project area. Thus total of 11.33 ha. area (40% of total project area) will be developed as greenbelt. Total no. of 21457 saplings will be planted and nurtured in 11.33 hectares within a year. The Committee deliberated on the action plan and budget allocation for green belt development and found it satisfactory.

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

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

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

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

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

Recommendations of the Committee:

15.10.21 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the written submission on 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. In pursuance to MoEF&CC OMs dated 31st October, 2019 & 30th December, 2019 issued in compliance of the order of Hon'ble NGT in OA No. 1038/2018 dated 19th August, 2019, the compliance of all the conditions applicable to CEPI shall be followed as committed. Greenbelt shall be planted in 40% of the project area. CER allocation shall be 1.5 times of the normal calculated amount.

iv. 3658 m^3/day of water requirement for the existing & proposed expansion project shall be obtained from MIDC. No ground water abstraction is permitted.

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

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

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

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

ix. Particulate matter emission from stacks shall be less than 30 mg/Nm^3. Action plan submitted to limit the dust emission shall be strictly implemented.

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

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

xii. Submerged Arc Furnace shall be of closed type/semi-closed type with 4th hole extraction system.

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

xiv. Solid waste utilization

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

xv. Sarai Nala (4 km, SSW), Wardha River (8 km, WSW), Erai River (8 km, ESE) and Kantya Nala (8.5 km, NE). 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.

xvi. 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.

xvii. 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.

xviii. The nearest habitation to plant is Yerur which is at distance of 0.5 Km from the boundary of the plant in the southern direction. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include these locations in its environmental monitoring programme. Dense plantation towards the villages in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation and socio-economic development of the villages shall be included.

xix. As committed to adopt 2 nos. of villages namely Yerur and Sakharwahi, project proponent shall prepare and implement a robust plan to develop them into model villages in next 10 years.

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

xxi. Three tier Green Belt shall be developed in at least 40% of the project area 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.

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

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

xxiv. During operational phase at Captive Power Plant, PP shall measure coal dust exposures and to maintain coal dust exposures within stipulated standards at coal handling areas. PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within

process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.

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

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

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

B. General conditions:

I. Statutory compliance:

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

II. Air quality monitoring and preservation

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

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

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

III. Water quality monitoring and preservation

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

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

i. Used refractories shall be recycled.

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

VII. Green Belt

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

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

VIII. Public hearing and Human health issues

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

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

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

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.

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

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

X. Miscellaneous

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

Agenda No. 15.11

15.11 Proposed Integrated Cement Plant with Clinker Production Capacity of 12.0 MTPA, Calcined Clay Production Capacity-1.5 MTPA, Cement Production Capacity 5.0 MTPA (OPC/PPC/PSC/Composite Cement/LC3/PLC), WHRB based Power Plant - 54 MW, DG Sets of 6000 KVA, Oxygen Plant of capacity 160 m^3/hr, AFR Pre-Processing/Co-processing Facility and Railway siding with wagon tippler by M/s JSW Cement Ltd. located at Village-Bhadana & Jindas, Tehsil-Nagaur, District-Nagaur, Rajasthan – Consideration of TOR

[Proposal No. IA/RJ/IND/290991/2022; File No. IA-J-11011/355/2022-IA-II(IND-I)]

15.11.1 M/s. JSW Cement Limited has made an application online vide proposal no. IA/RJ/IND/290991/2022 dated 03.10.2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No.3(b) Cement Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

15.11.2 Name of the EIA consultant: M/s. Vimta Labs Ltd. [S. No. 146, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/1922/RA0226 valid till 27.03.2023; Rev. 25, Sept 05, 2022].

Details submitted by Project proponent

15.11.3 The project of M/s JSW Cement Limited located in village Bhadana & Jindas Villages, Nagaur Tehsil , Nagaur District, Rajasthan is for setting up of a new Integrated cement plant with Clinker production capacity of 12 MTPA, Calcined Clay production capacity of 1.5 MTPA, Cement production capacity of 5 MTPA (OPC/PPC/PSC/Composite Cement/LC3/PLC), WHRB based Power Plant of 54 MW, DG Sets of 6000 KVA'S (3 X 2000 KVA'S) Capacity, Oxygen Plant of 160 m^3/hr Capacity, AFR Pre-Processing/Processing facility and Railway Siding along with Wagon Tipplers.

15.11.4 Environmental site settings:

Sr. No.	Particulars	Details	Remarks

<table>
<tr><th>Sr. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>194.5560 ha [Private: 192.4838 ha (Agriculture); Govt: 2.0722 ha]</td><td>Private land is mostly agriculture land.
PP has not taken the LoI from the State Govt. land.</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>M/s JSW Cement has obtained consents of from the private land owners. Land purchase is being initiated shortly. However, PP has not obtained any land yet.</td><td>PP has not acquired any land yet. At present there is no land available with the PP.</td></tr>
<tr><td>iii.</td><td>Existence of habitation & Involvement of R&R, if any.</td><td>Project site: Village Bhadana and Jindas
Study Area:
<table>
<tr><th>Habitation (nos)</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>5 families</td><td colspan="2">Inside the project area, 0 km</td></tr>
</table>
Details of habitation outside project area:
<table>
<tr><th>Habitation (nos)</th><th>Distance (m)</th><th>Direction</th></tr>
<tr><td>Hamlet with 4 families</td><td>50 m</td><td>NW</td></tr>
<tr><td>Jindas Village</td><td>1.50 km</td><td>NE</td></tr>
<tr><td>Bhadana</td><td>1.70 km</td><td>SW</td></tr>
<tr><td>Harima</td><td>2.70 km</td><td>S</td></tr>
<tr><td>Hamlet (Jindas ki Dhani)</td><td>0.60 km</td><td>NW</td></tr>
</table></td><td>Status of R&R:
R&R is involved for the habitations within the project area and also for purchase of private land.</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all corners of the project site.</td><td>
<table>
<tr><th>Sl. No</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td colspan="3">Centre Point</td></tr>
<tr><td>1</td><td>27°17'17.27"N</td><td>73°50'25.32"E</td></tr>
<tr><td colspan="3">Corner Coordinates</td></tr>
<tr><td>A</td><td>27°17'03.49"N</td><td>73°49'43.33"E</td></tr>
<tr><td>B</td><td>27°16'51.20"N</td><td>73°49'54.19"E</td></tr>
<tr><td>C</td><td>27°16'49.54"N</td><td>73°50'05.91"E</td></tr>
<tr><td>D</td><td>27°17'19.23"N</td><td>73°51'06.69"E</td></tr>
<tr><td>E</td><td>27°17'38.52"N</td><td>73°50'57.11"E</td></tr>
<tr><td>F</td><td>27°17'43.46"N</td><td>73°50'37.83"E</td></tr>
</table></td><td>-</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>304 m AMSL</td><td>-</td></tr>
<tr><td>vi</td><td>Involvement of Forest land, if any.</td><td>No forest land involved in the proposed project</td><td>-</td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project</td><td><u>Water Bodies within 10 km study area:</u>
<table>
<tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Nosar Talab</td><td>5.4 km</td><td>ENE</td></tr>
<tr><td>Janjoli Naddi</td><td>5.3 km</td><td>NE</td></tr>
<tr><td>Jindas talab/ Kuradi Naddi</td><td>0.4 km</td><td>NNE</td></tr>
</table></td><td>-</td></tr>
</table>

Sr. No.	Particulars	Details			Remarks
	site as well as study area	Badi Naddi(Rajlai Naddi) /Badana talab	1.0 km	SW	
		Dobi Naddi	1.9 km	SW	
		Chunni Naddi	1.8 km	SW	
		Panchalai Naddi (Jakhil Naddi)	2.0 km	NW	
		Ketalai Naddi	2.3 km	WSW	
		Malgaon Talab	3.8 km	W	
		Jathera Talab	6.2 km	N	
		Sarsani Talab	6.5 km	SE	
		Chapar Naddi	8.5 km	SE	
		Bohra Nadda	5.9 km	WSW	
		Kharkhani Naddi	8.3 km	NNW	
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil.			-

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

Sl. No.	Name of the Facility	Configuration	Capacity (MTPA)
1	Crusher		
	Coal Crusher	3 X 150 TPH	2.16
	Additive Crusher	3 X 150 TPH	1.72
2	Stacker & Reclaimer		
	Limestone Stacker	3 X 1500 TPH	18.39
	Limestone Reclaimer	3 X 1900 TPH	18.39
	Coal and Gypsum Stacker	3 X 300 TPH	2.16
	Coal Reclaimer	3 X 200 TPH	2.16
	Gypsum Stacker	2 X 300 TPH	0.35
3	Raw Mill (VRM)	3 X 900 TPH	19.36
4	Cement Mill	2 X 350 TPH	5.00
5	Coal and Petcoke Mill	3 X 125 TPH	2.16
6	Kiln & Cooler with 5 Stage ILC Low Nox Pre-heater	3 X 12000 TPD	12.00
7	Waste Heat Recovery Based Power Plant (WHRB)	3 X 18 MW	-
8	Boiler for Desalination Plant	6 TPH	-
9	Alkalis/chorine bypass system	3 X 70 TPD	0.069
10	Clay Calciner System for calcined clay production	2 X 2300 TPD	1.5

Sl. No.	Name of the Facility	Configuration	Capacity (MTPA)
11	Packers	5 Packers	5.00
12	Oxygen (O2) Plant	160 m3/hr	-
13	DG Sets	6000 KVA'S (3 X 2000)	-
14	Railway Siding with Wagon Tippler	62500 TPD handling cap.	20.625
15	AFR Pre-Processing/Co-processing Facility	3750 TPD	1.24
16	Sewage Treatment Plant	250 KLD	-
17	Water Treatment Plant (Desalination Plant)	7000 KLD	-

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

S. No.	Name of Raw Materials	Quantity required per annum	Source	Distance from site (kms)	Mode of Transportation
1	Limestone	17.64 For Clinker and 0.75 MTPA for LC#3 Cement Production	Lime stone mines 3 B2 and proposed limestone mines 3D1, 3C1 and 3C2 block at Nagaur Rajasthan, all three mines are adjacent to each other.	About 1-4	From the plant site through road/ conveyor belts (OLBC)
2	Additive-1, Silica Sand	0.985	Nearby plant area	50	Road
3	Additive-2, Clay	2.43 (0.73 for Clinker and 1.70 for Calcined Clay)	Nearby plant area	50	Road
4	Additive-3, Red Ochre/ I.O.	0.73	Chittorgarh, or other sources near to plant area	350	Road
5	Gypsum	0.35	Mineral Gypsum from Hanumangarh and Jaisalmer Rajasthan/ Gujarat/ Nagaur (Rajasthan) Chemical gypsum/ marine gypsum/ phospo-gypsum from Gujarat Imported Gypsum from Kandla Port (Oman & Iran)	350/340/750 km 100 Kms ~750 kms	Rail/Road
6	Fly ash & Pond Ash	1.75	Suratgarh 300 km, Barmer 380 km and other power plants in nearby areas	Suratgarh-300 km, Barmer-380 km	Rail/Road

7	Slag	1.3	JSW Steel Plant at Dolvi, Maharashtra.	955 km	Rail/Road

15.11.7 The total fresh water requirement for the Cement Plant will be 6000 KLD which will be met from saline Ground water after prior approval from competent authorities or from the RSMM Matasukh lignite mine sump. Saline water will be de-salinated.

15.11.8 The power requirement for the proposed project is estimated as 120 MW, out of which 54 MW will be obtained from the WHRS and the remaining power will be sourced from the state grid.

15.11.9 The capital cost of the project is Rs. 4998.048 Crores and the Capital cost of environmental protection measures is proposed as Rs. 547.39 Crores & Recurring cost for environment protection measures is Rs. 29.93 Crores. The employment generation from the proposed project during operation phase (Regular + Contractual) will be 1400 no's.

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

15.11.11 Proposed Terms of Reference: [Baseline data collection period: **1st October 2021 to 31st December 2021**]

Sr. No.	Attributes	Parameters	Sampling		Remarks
			No. of Stations	Frequency	
A	Air				
a	Meteorological parameters	Wind speed, wind direction, temperature, relative humidity, rainfall and other non-instrumental observations	1 location	Continuous for three months with hourly recording at one central location and secondary data collected from nearest IMD	-
b	AAQ parameters	NAAQS 2009	10 Locations	24 hourly samples twice a week for 13-weeks. CO is monitored for three 8 hourly samples in 24 hours for twice a week for thirteen weeks	-
B	Noise	Noise levels in dB(A)	10 Locations	Hourly readings for 24 hours once during study period	-
C	Water				
a	Surface water /ground water quality parameters	Physical, chemical and bacteriological parameters	SW-3 Locations GW-8 Locations	Grab samples were collected from surface water (SW) and ground water (GW) sources. Sampling and analysis is carried out	-

Sr.	Attributes	Parameters	Sampling		Remarks
				for once during study period	
D	Land				
a	Soil quality	Soil profile with chemical constituents	10 locations	Once during study period	-
b	Land use	Trend of land use change for different categories	-	Once during study period	-
E	Biological				
a	Aquatic	Aquatic flora and fauna in the study area	2 locations	Once during study period	-
b	Terrestrial	Terrestrial flora and fauna in the study area	5 locations in core zone 40 Locations in buffer zone	Once during study period	-
F	Socio-economic parameters	Socio-economic characteristics	-	Once during study period	-

Deliberation by the Committee

15.11.12 The Committee noted the following:

i. Total project area is 194.5560 which is mostly agricultural land. M/s JSW Cement has obtained consents of the private land owners for sale of land, however there is no single part of land is in possession of the PP. Even, the PP has not taken the LoI/Commitments from the State Government land. As per Ministry's O.M. vide F.No. 22-76/2014-IA-III dated 07.10.2014 which reads as *" While full acquisition of land may not be a prerequisite for the consideration of the case for EC, there should be some credible document to show the status of land acquisition w.r.t project site when the case is brought before the concerned EAC/SEAC for appraisal……In case the land is being acquired through private negotiations with the land Owners, credible document showing the intent of the land owners to sell the land for the proposed project."* Therefore, in view of the same, credible document showing the intent of the land owners to sell the land for the proposed project shall be required which was not uploaded by the proponent on Parivesh portal. The EAC noted that PP has not acquired any land yet. At present there is no land available with the PP neither from the private land nor from State Govt. PP has not obtained LoI from the State Govt. for installation of Cement Plant in Govt. land.

ii. The project proponent submitted that baseline data has already been submitted during 1st October 2021 to 31st December 2021, whereas alternate site analysis has been carried post baseline data collection. In this regard, EAC is of the opinion that alternate site analysis has to be undertaken first and once the site is finalized and agreed upon by the

EAC during appraisal, baseline data shall be carried out. In view of the same, it is required that baseline data shall be collected again.

iii. Five families reside inside the project area. Also there is a hamlet with 4 families (50 m, NW), Hamlet (Jindas ki Dhani) (0.50 km, NW), Jindas Village (1.5 km, NE), Bhadana (1.70 km, SW) and Harima (2.70 km, S) within the study area. Project Proponent shall submit action plan for environmental safeguard measures to minimise the impact on the habitation of the locals. Project Proponent shall submit the R&R details involved for the habitations within the project area and also for purchase of private land.

iv. There are many water bodies which exists within the study area of 10 km of the project site. The PP shall submit the suitable steps /conservation plan along with contouring (close intervals), Run -off calculations, disposal etc. A robust and full proof Micro-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.

v. Project Proponent has submitted that they have acquired limestone mines nearby project site. EC for limestone mine 3B2 was taken in e-auction 2 years back. Later, the company again participated in other nearby auction blocks such as 3D1, 3C1, 3C2 where the company has been declared as 'preferred bidder'. LoI of these mines is awaited from the state govt which PP expect to be issued by this month end. The EAC deliberated that it appears that the proposed project is a part of Interlinked project. PP shall explore the re-check and re-verify whether the proposed project falls as a part of Interlinked project. Accordingly, the proposal shall be revised and re-submitted.

vi. In view of above, the Project Proponent requested the EAC to allow to reappear after revision of the application.

Recommendations of the Committee

15.11.13 In view of the foregoing and after deliberations, the Committee recommended that proposal to be **returned in its present form** to address the shortcomings enumerated at para no. 15.11.12 above and submit the revised application as per the provisions of EIA Notification, 2006.

***

Agenda No. 15.12

15.12 Proposed Mini Steel plant along with 20.0 MW Captive Power Plant by M/s Krishna Iron and Energy Pvt. Ltd., located at Sy. No. 422, 423, 424, 425/1, 425/2, 426, 427, 429, 431, 790/1, 417, 419, 420, 446, 432, 411, 416, 418, 436, 428, 430, 455, 759, 409, 412/1, 412/2. 413, 447, 449/2, 449/3. 415,451,433,434,435,438, 766 Kesda Village, Simga Tehsil, Bhatapara - Balodabazar District, Chhattisgarh – Consideration of TOR .

[Proposal No. IA/CG/IND/267446/2022: File No. IA-J-11011/129/2022-IA-II(IND-I)]

15.12.1 M/s. Krishna Iron and Energy Private Limited has made an application online vide proposal no. IA/CG/IND/267446/2022 dated 4th October 2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No.3(a) Metallurgical Industries (Ferrous and Non/ferrous) and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

15.12.2 Name of the EIA consultant: M/s Envycraft Environmental Services [S. No. 33, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2124/IA0085 valid till 04.05.2024; Rev. 25, Sept 05, 2022].

Details submitted by Project proponent

15.12.3 The project of M/s Krishna Iron and Energy Private Limited located in Sy. No. 422, 423, 424, 425/1, 425/2, 426, 427, 429, 431, 790/1, 417, 419, 420, 446, 432, 411, 416, 418, 436, 428, 430, 455, 759, 409,412/1,412/2.413,447, 449/2, 449/3. 415,451,433,434,435,438, 766 Kesda Village, Simga Tehsil, Bhatapara - Balodabazar District, Chhattisgarh State is for setting up of a greenfield Mini steel plant for production of Sponge iron through Rotary Kiln – 2,10,000 TPA, Steel Ingots/Steel Billets through Induction Furnace with concast – 2,50,000 TPA, Rolled product through rolling mill – 2,50,000 TPA, Ferro Alloys Unit through SEAF (Fe-Si, Si-Mn and Fe-Mn) – 50,000 TPA and Power Plant - 20 MW (WHRB – 10 MW, AFBC 10 MW).

15.12.4 Environmental site settings:

<table>
<tr><th>S.No.</th><th>Particulars</th><th colspan="4">Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td colspan="4">16.89 ha [Private land]</td><td>Land use: Barren Land</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td colspan="4">Land completely acquired and under the possession of the company.</td><td></td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td colspan="4">There is no involvement of R&R.</td><td></td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all corners of the project site.</td><td>Point</td><td>Latitude</td><td>Longitude</td><td></td><td></td></tr>
<tr><td></td><td></td><td>1.</td><td>21°37'7.00"N</td><td>81°47'40.34"E</td><td></td><td></td></tr>
<tr><td></td><td></td><td>2.</td><td>21°37'1.58"N</td><td>81°47'49.94"E</td><td></td><td></td></tr>
<tr><td></td><td></td><td>3.</td><td>21°36'51.85"N</td><td>81°47'39.06"E</td><td></td><td></td></tr>
<tr><td></td><td></td><td>4.</td><td>21°36'51.46"N</td><td>81°47'33.92"E</td><td></td><td></td></tr>
<tr><td></td><td></td><td>5.</td><td>21°36'50.44"N</td><td>81°47'31.37"E</td><td></td><td></td></tr>
<tr><td></td><td></td><td>6.</td><td>21°36'48.34"N</td><td>81°47'30.21"E</td><td></td><td></td></tr>
<tr><td></td><td></td><td>7.</td><td>21°36'49.25"N</td><td>81°47'28.68"E</td><td></td><td></td></tr>
<tr><td></td><td></td><td>8.</td><td>21°36'49.51"N</td><td>81°47'23.21"E</td><td></td><td></td></tr>
<tr><td></td><td></td><td>9.</td><td>21°36'50.24"N</td><td>81°47'21.31"E</td><td></td><td></td></tr>
<tr><td></td><td></td><td>10.</td><td>21°36'53.59"N</td><td>81°47'21.65"E</td><td></td><td></td></tr>
</table>

<table>
<tr><th>S.No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>11. 21°36'56.16"N 81°47'31.37"E
12. 21°37'0.04"N 81°47'35.53"E</td><td></td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>283 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 (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

Study area<table><tr><th>Water body</th><th>Distance</th><th>Direction</th></tr><tr><td>Bhatpara Canal</td><td>Adjacent with Site</td><td>East</td></tr><tr><td>Ghughua Tank Dam</td><td>2.5 Km</td><td>SW</td></tr><tr><td>Seonath River</td><td>9.4 Km</td><td>West</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:

1. Bilari RF – 5.4 km, SW
2. Bilari Ghughua RF – 0.35 Km, West</td><td></td></tr>
</table>

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

S. No.	Details		Plant Configuration	Install Capacity
1.	Sponge Iron through Rotary kilns		2 x 350 TPD	2,10,000 TPA
2.	Billets through Induction Furnace with Concast		3 x 20 MT/ Heat	2,50,000 TPA
3.	Rolled products such as TMT bars/ structural steels through Rolling Mill.		1 x 850 TPD	2,50,000 TPA
4.	Ferro Alloys through Submerged Arc Furnace (Fe-Si, or Si-Mn, or Fe-Mn)		3 x 9 MVA	Fe-Si - 17000 TPA or Si-Mn 38000 TPA or Fe-Mn - 50,000 TPA
5.	Power Plant (20 MW)	Through WHRB Based	1 x 10 MW	10 MW
		Through FBC	1 x 10 MW	10 MW

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

Raw Material	Consumption (TPA)	Sources	Method of Transportation
For DRI (Sponge iron)			
Iron Ore	334530	Barbil, Orissa NMDC, Chhattisgarh	By Rail & by Road
Coal	272580	SECL Chhattisgarh / MCL	By Rail & by Road

Raw Material	Consumption (TPA)	Sources	Method of Transportation
		Orissa / Imported Coal	
Dolomite	12390	Raipur / Durg	By Road (Covered trucks)
For Induction Furnace (MS billets)			
Sponge Iron	249400	In plant generation	Covered conveyor
Scrap	34800	Raipur / Durg	By Road (Covered trucks)
Ferro Alloys	5800	Raipur / Durg	By Road (Covered Trucks)
For Rolling Mill (TMT bars / Structural steel)			
Steel billets / Ingots	270840	In plant generation & External Purchase	Covered conveyor
For Power plant (10 MW AFBC based power plant)			
Dolochar	27000	In plant generation	Covered conveyor
Coal	53700	SECL Chhattisgarh / MCL Orissa / Imported Coal	By Rail & by Road
For Ferro Silicon (FeSi)			
Quartz	22685	Raipur / Durg	By Rail / Road
Pet coke	7668	Raipur / Durg	By Rail / Road
MS Scrap	479	Raipur / Durg	Covered conveyor
Electrode paste	1118	Raipur / Durg	By Road
For Silico Manganese (SiMn)			
Manganese Ore	42261	Orissa & MOIL, Nagpur	By Rail & by Road
Mn. Slag	24382	In plant generation	---
Quartz	10565	Raipur / Durg	By Rail / Road
Pet coke	4064	Raipur / Durg	By Rail / Road
For Ferro Manganese (FeMn)			
Manganese Ore	72420	Orissa & MOIL, Nagpur	By Rail & by Road
Pet coke	41205	Raipur / Durg	By Rail / Road
MS Scrap	2872	Raipur / Durg	Covered conveyor
Electrode Paste	8366	Raipur / Durg	By Road

15.12.7 The water requirement for the proposed project is estimated as 860 m^3 /day of fresh water requirement will be obtained from the CGWA.

15.12.8 The power requirement for the proposed project is estimated as 35 MW, out of which 20 MW power will be sourced from CPP and remaining 15 MW Power will be sourced from State Electricity Board.

15.12.9 The capital cost of the project is Rs 350 Crores and the capital cost for environmental protection measures is proposed as Rs 40 Crores. The employment generation from the proposed project is 1000.

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

15.12.11 Proposed Terms of Reference: [Baseline data collection period: **1st March 2022 to 31st May, 2022**]

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
A. Air				
a Meteorological parameters	Meteorological Wind Speed Wind Direction Max. Temperature Min. Temperature Relative Humidity Rain fall Solar radiation Cloud cover	1 location at project site	One hourly continuous for one season	Secondary data from nearest IMD for data verification and selection of sampling locations
b. AAQ parameters	PM_{10}, $PM_{2.5,}$ SO_2, NOx, CO	8 locations, one at project site and 07 in buffer area	24 hourly twice a week	Interpretation based on CPCB NAAQ standards 2009
B. Noise	Hourly equivalent noise levels dB(A) Day Time Noise Levels (Leq_{day}) dB(A) Night time Noise Levels (Leq_{night}) dB(A)	08 locations, one at project site and 07 in buffer area	24 hourly Once in season	CPCB /OSHA
C. Water				
Surface water/Ground waterquality parameters	**Ground water** Color; pH; Turbidity; Dissolved solids; Aluminium as Al; Ammonia (, as total ammonia-N); Anionic Detergents as MBAS; Barium as Ba; Boron as B; Calcium as Ca; Chloramines as Cl_2 Chloride as Cl; Copper as Cu; Fluoride as F; Free Residual Chlorine; Iron as Fe; Magnesium as Mg; Manganese as Mn; Nitrate as $NO_{3;}$ Phenolic Compounds as C_6H_5OH; Selenium as Se; Sulphate as SO_4. Total Alkalinity as $CaCO_3$. Total Hardness as $CaCO_3$. Zinc as Zn, Cd; Pb; Hg; As;Ni;Cr **Surface water** pH; Turbidity; Total Hardness (as $CaCO_3$);	Set of grab samples during study period at the above mentioned 8 locations for ground water.	Once in season	

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
	Total Alkalinity (as $CaCO_3$); Chlorides (as Cl); Sulphate (as SO_4); Nitrate (as NO_3); Fluoride (as F); $BOD_{3Days\ at\ 27^oC;}$ COD; Phenolic Compounds (as C_6H_5OH); Lead (as Pb); Iron (as Fe); Arsenic (as As); Cadmium (as Cd); Total Chromium (as Cr); Mercury (as Hg); Copper (as Cu); Zinc (as Zn); Selenium (as Se); Oil & grease; Colour; Dissolved solids; Residual free chlorine; Boron (as B); Calcium (as Ca); Magnesium (as Mg); DO;	Set of grab samples during study period		
D. Land				
a. Soil quality	**Soil:** Particle size distribution; Texture; pH. Electrical conductivity; Bulk density; Organic carbon; Sodium (Na); Potassium (K); Moisture content; Total Nitrogen; Available phosphorous; organic matter; Total Soluble Chloride; Total Soluble sulphate; Water holding capacity; Porosity;	08 locations, One location at project site and 07 locations in buffer area	Once in season	
b. Land use	**Land use/Landcover** Location code Total project area Topography Drainage (natural) Cultivated, forest, plantations, water bodies, roads and settlements	Study area	At least 20 known vectors for geo referencing and verification	
E. Biological a. Aquatic b. Terrestrial	• Incentivization of floral and faunal species in core and buffer zone • Density in core zone • Importance value index (IVI)	Study Area	Five-Seven days in a season	

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
	of trees, • Biodiversity index • Identification of rare threatened and endangered species			
F. Socio-economic parameters	Demographic structure; Infrastructure resource base; Economic resource base; Health status; Morbidity pattern; Working pattern; Cropping pattern	Study area	In two phases of the project	

Deliberation by the Committee

15.12.12 The Committee noted the following:

i. Total land area is 16.89 ha which is a barren land. The land is acquired and under the possession of the company.

ii. The EAC further noted that project proponent has not undertaken alternate site analysis before finalising the proposed project site which is prerequisite for a greenfield project as per the provisions entailed in Form-1 on PARIVESH. The EAC opined that the alternative site analysis is aimed to select the best site in terms of having least adverse social & environmental impacts due to the project apart from other parameters such as technical feasibility and economic & financially viability. Thus EAC advised PP/Consultant to undertake alternate site analysis and submit the revised application fulfilling all the criteria of the application in pursuance to the provisions of EIA Notification, 2006.

iii. Further, as per Ministry's O.M. vide F.No. 22-76/2014-IA-III dated 07.10.2014 which reads as *" While full acquisition of land may not be a prerequisite for the consideration of the case for EC, there should be some credible document to show the status of land acquisition w.r.t project site when the case is brought before the concerned EAC/SEAC for appraisal……"* Therefore in view of the same, credible document showing the status of land acquisition shall be required at the time of appraisal.

iv. **The EAC also warned the Consultant M/s Envycraft Environmental Services for not guiding the project proponent properly with respect to fulfilling all the criteria at the time of preparation of application and submission of all the requisite documents at the time of appraisal of proposal.**

v. In view of above, the Project Proponent requested the EAC to allow to reappear after revision of the application.

Recommendations of the Committee

15.12.13 In view of the foregoing and after deliberations, the Committee recommended that proposal to be **returned in its present form** to address the shortcomings enumerated at para no. 15.12.12 above and submit the revised application as per the provisions of EIA Notification, 2006.

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Re-Consideration of Environmental Clearance Proposal

Agenda No. 15.13

15.13 Change in EC Configuration from 5.5 MTPA to 4.5 MTPA by M/s. Bhushan Power and Steel Limited located at Village Thelkoloi, Tehsil Rengali, District Sambalpur, Odisha – Environment Clearance under the provision of para 7 (ii) of EIA Notification, 2006 – regarding.

[Proposal No. IA/OR/IND/257254/2022; File No. IA-J-11011/40/2009-IA-II(I)]

15.13.1 M/s. Bhushan Power and Steel Limited has made an online application vide proposal no. IA/OR/IND/257254/2022 dated 15/03/2022 along with copy of Addendum EIA report, Form – 2 and certified compliance report seeking Environment Clearance (EC) under the provisions of para 7(ii) of EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (ferrous &non-ferrous), 2 (a) Coal Washeries, 2(b) Mineral Beneficiation, 1(d) Thermal Power Plants and 4(b) Coke oven plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

15.13.2 Name of the EIA consultant: M/s M. N. Dastur & Company (P) Ltd [S. No. 178, List of ACOs with their Certificate/ Extension Letter no. QCI/NABET/ENV/ACO/22/2285; valid up to 23/06/2022; Rev. 23, May 09, 2022].

Details submitted by the project proponent

15.13.3 The project of M/s Bhushan Power and Steel Limited is located at Village Thelkoloi, Tehsil Rengali, District Sambalpur, Odisha is for Change in EC Configuration from 5.5 MTPA to 4.5 MTPA.

15.13.4 Environmental site settings:

S. No.	Particulars	Details	Remarks
i)	Total land	**789.24 ha** (1950.25 acre) [Private: 789.24 ha] As per earlier EC dated 06/12/2016 total project area was 829.726 ha (plant area: 789.24 ha + Township: 40.48 ha). As per instant proposal, PP excluded the township area of 40.48 ha and kept plant area of 789.24 ha only.	Land use – Industrial land.

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>As per EC dated 06/12/2016 total land is 789.24 ha out of which 505.96 ha land is existing land and 283.28 ha is expansion land)</td><td></td></tr>
<tr><td>ii)</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>The proposed change in configuration will take place within existing plant area of 789.24 ha. Out of total 789.24 ha land existing land 505.96 ha is in possession of the company and for expansion 283.28 ha land acquisition process is in progress. No additional land is required for proposed change in configuration.</td><td>--</td></tr>
<tr><td>iii)</td><td>Existence of habitation & involvement of R&R, if any</td><td><u>Project site:</u>
Village Thelkoloi and Khadiapalli having Project displacement families- 111 of 2 villages.

Study area:<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Thelkoloi</td><td>50 m</td><td>West</td></tr><tr><td>Sripura</td><td>1.5 km</td><td>NE</td></tr><tr><td>Lapanga</td><td>0.5 km</td><td>SW</td></tr></table></td><td>R&R is in progress.</td></tr>
<tr><td>iv)</td><td>Latitude and Longitude of the project site</td><td><table><tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr><tr><td colspan="3">Existing plant 1250.25 acre</td></tr><tr><td>1</td><td>21°46'16.14"N</td><td>84° 0'49.60"E</td></tr><tr><td>2</td><td>21°45'35.06"N</td><td>84° 0'51.46"E</td></tr><tr><td>3</td><td>21°44'51.44"N</td><td>84° 0'33.81"E</td></tr><tr><td>4</td><td>21°44'53.10"N</td><td>84° 2'1.75"E</td></tr><tr><td>5</td><td>21°45'41.70"N</td><td>84° 1'41.13"E</td></tr><tr><td>6</td><td>21°46'28.66"N</td><td>84° 1'21.75"E</td></tr><tr><td colspan="3">Additional 700 acres</td></tr><tr><td>1</td><td>21°44'53.17"N</td><td>84° 1'22.00"E</td></tr><tr><td>2</td><td>21°43'49.85"N</td><td>84° 1'7.45"E</td></tr><tr><td>3</td><td>21°43'42.73"N</td><td>84° 1'39.56"E</td></tr><tr><td>4</td><td>21°44'51.88"N</td><td>84° 2'02.61"E</td></tr></table></td><td>-</td></tr>
<tr><td>v)</td><td>Elevation of the project site</td><td>222 m above mean sea level (MSL)</td><td>-</td></tr>
<tr><td>vi)</td><td>Involvement of Forest land if any</td><td>Not Applicable</td><td></td></tr>
<tr><td>vii)</td><td>Water body exists within the project site as well as study area</td><td>Project site: NIL

Study area:<table><tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr><tr><td>Ib river</td><td>7.0 km</td><td>West</td></tr><tr><td>Matwali river</td><td>4.7 km</td><td>SSE</td></tr><tr><td>Bheden river</td><td>0.88Km</td><td>NW</td></tr><tr><td>Hirakud Reservoir</td><td>1.0 km</td><td>SSW</td></tr></table></td><td>-</td></tr>
<tr><td>viii)</td><td>Existence of</td><td>NIL</td><td>-</td></tr>
</table>

S. No.	Particulars	Details	Remarks
	ESZ/ESA/ national park/wildlife sanctuary/biosphere reserve/tiger reserve/ elephant reserve etc. if any within the study area		

15.13.5 The chronology of earlier EC is given as below:

Date	Detail
12/05/2004	EC obtained from MOEF&CC vide letter no J-11011/228/2003-IA II for setting up of **1.2 MTPA** Steel Plant in the name of M/s. Bhushan Power & Steel Limited
29/03/2007	EC expansion from MOEF&CC vide letter no J-11011/372-IA-II(I) for **1.2 MTPA to 2.2 MTPA.**
02/04/2010	EC expansion from MOEF&CC vide letter no J-11011/40/2009-IA-II(I) for **2.2 MTPA to 2.8 MTPA.**
17/10/2012	Amendment in EC for **2.8 MTPA to 3.0 MTPA**
06/12/2016	Expansion in EC for **3.0 MTPA to 5.5 MTPA**
26/07/2017	BPSL went into NCLT and was under administrative control of RP (Resolution Professional) as per CIRP (Corporate Insolvency Resolution Procedure).
26/03/2021	M/s. JSW Steel Ltd took over the M/s. BPSL on and has full administrative control of its operations.

Renewal of consents to operate for the existing plant was accorded by State Pollution Control Board, Odisha dated 25/03/2022 and same is valid up to 31/03/2023.

15.13.6 Implementation status of the existing Environmental Clearances:

S. No.	Facilities	As per EC dated 06/12/2016	Implementation Status	Production as per CTO
1	Coal Washery	1x1.0MTPA+ 1x3.5MTPA	Commissioned	1x1.0MTPA+ 1x3.5MTPA
2	Beneficiation Plant	1x1200TPH (6.5MTPA Product)	Commissioned	1200 TPH
3	Pellet Plant	4.0MTPA	3.5 MTPA commissioned	3.5MTPA
4	DRI Kiln	14x500TPD (2.3MTPA)	12x500 TPD commissioned	(12x500 TPD) 1.92MTPA
5	Coke Oven	2x0.45MTPA (Non-Recovery Type) 1x1.2MTPA (Recovery Type)	1x0.45MTPA (Non recovery commissioned and 1.0 MTPA recovery type coke oven has been commissioned. Detail engineering for upgradation to 0.2 MTPA is in progress.	0.45 MTPA-Non-Recovery Type; 1.0 MTPA-Recovery Type
6	Sinter Plant	1x105 m^2 + 1x450 m^2	1x105 m^2 commissioned; 1x450 m^2under	1x105 m^2

S. No.	Facilities	As per EC dated 06/12/2016	Implementation Status	Production as per CTO
			construction	
7	Blast Furnace	1x1008 m^3 + 2x2015 m^3	1x1008 m^3 + 1x2015 m^3 commissioned and	(1x1008 m^3) 0.8 MTPA + (1x2015 $m^{3)}$ 1.55 MTPA
8	EAF	6x100 Ton	2x90T, 2x100T and 1x70 T commissioned	2x90 T + 2x100 T + 1x70
9	LF	6x100 ton + 2x250 ton	2x90T, 2x100T and 1x70 T commissioned	2x90 T + 2x100T + 1x70 T
10	Alloy Smelter	4x16 MVA	Not commissioned	--
11	BOF	2x250 ton	Not commissioned	--
12	VD/AOD	2x100 ton + 2x250 ton	Not commissioned	--
13	RH	2x250 ton	Not commissioned	--
14	HMDP	2x250 ton	Not Commissioned	--
15	Lime Plant	3x300 TPD + 2x600 TPD	3x300 TPD- commissioned	3x300 TPD
16	Dolo Plant	1x300 TPD + 1x100 TPD + 1x600 TPD	1x600 under construction.	--
17	Oxygen Plant	1x400 TPD + 1x660 TPD + 1x1250 TPD	1x400 TPD + 1x660 TPD – Commissioned; 1000 TPD under construction	1x400 TPD + 1x660 TPD
18	Billet Caster	(1x2) + (2x4) + (1x5) Strand	(1x2) + (1x4) + (1x3) Strand	1x5 + 1x2 + 1x4, strand
19	Bloom Caster	2x2 Strand	Not commissioned	--
20	Thin Slab Caster	3x1 Strand	2x1 strand Commissioned.	2x1 strand
21	CSP	4.0 MTPA	1.8 commissioned	1.8 MTPA
22	Cold Rolling Mill	2.5 MTPA	1 MTPA commissioned 1.5 MTPA under engineering	1 MTPA
23	Pipe and Tube Mill	0.8 MTPA	0.2 MTPA commissioned 0.6 MTPA under implementation	0.2 MTPA
24	Galvanising / Galvalume Line	1.3 MTPA	0.5 MTPA commissioned 0.8 MTPA under implementation	0.5 MTPA
25	Colour Coating Unit	0.7 MTPA	0.45 MTPA commissioned 0.25 MTPA under implementation	0.45 MTPA
26	Wire and Rod Mill	0.45 MTPA	0.45 commissioned	0.45 MTPA
27	Bar and Rod Mill	0.55 MTPA	0.55 under implementation	--

S. No.	Facilities	As per EC dated 06/12/2016	Implementation Status	Production as per CTO
28	Captive Power Plant	710 MW (Coal fired, & WHRB)	506 MW Commissioned	3x130 MW + 60 MW + 40 MW + 2x8
29	Cement Plant	1.0 MTPA	Under engineering stage	--

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

S. No.	Facility	Configuration as per EC dated 06/12/2016	Configuration after proposed amendment	Remarks
1	Coal Washery	1x1.0 MTPA + 1x3.5 MTPA	1x1.0 MTPA + 1x3.5 MTPA	No change
2	Beneficiation Plant	1x1200 TPH (6.5 MTPA Product)	1x1200 TPH (6.5 MTPA Product)	No change
3	Pellet Plant	4.0 MTPA	4.0 MTPA	No change
4	Sinter Plant	1x105 m^2 + 1x450 m^2 (Total: 5.9 MTPA)	1x105 m^2 + 1x450 m^2 (Total: 5.9 MTPA)	No change
5	DRI Kiln	14x500 TPD (2.3 MTPA)	12x500 TPD (2.0 MTPA)	2x500 TPD surrendered
6	Coke Oven	2x0.45 MTPA (Non-Recovery Type) 1x1.2 MTPA (Recovery Type)	1x0.45 MTPA (Non-Recovery Type) 1x1.2 MTPA (Recovery Type)	1x0.45 MTPA Non-Recovery Coke Oven surrendered
7	Blast Furnace	1x1008 m^3 + 2x2015 m^3 (Total: 3.9 MTPA)	1x1120 m^3 + 1x2015 m^3 (Total: 2.35 MTPA)	Augmentation of BF from 1008 m^3 to 1120 m^3 and 1x2015 m^3 BF surrendered
8	EAF/Zero Power Furnace (ZPF)	SMS-1: EAF: 4x100 T SMS-2: EAF: 2x100 T (Total: 600 T)	SMS-1: EAF: 4x105 T SMS-2: EAF: 1x75 T + ZPF: 1x75 Ton (Total: 570 T)	4x100 is upgraded to 4x105 T and 2x100 T EAF change to 1x75 T EAF +1x75 T ZPF
9	LF	6x100 ton + 2x250 ton (Total 1050T)	6x100 Ton + 2x75 Ton (Total 675T)	250T LF changed to 75 T LF
10	Alloy Smelter	4x16 MVA	NIL	All units surrendered
11	BOF	2x250 ton	NIL	All units surrendered
12	VD/AOD	2x100 ton + 2x250 ton	2x100 Ton + 2x75 Ton	250T LF changed to 75 T VD/AOD
13	RH	2x250 ton	NIL	All units surrendered
14	HMDP	2x250 ton	2x100 Ton	300 T surrendered
15	Lime Plant	3x300 TPD + 2 x 600 TPD	3x300 TPD + 2x600 TPD	No change
16	Dolo Plant	1x300 TPD + 1 x 100 TPD + 1x600 TPD	1x600 TPD	1x300 TPD + 1x100 TPD surrendered
17	Oxygen Plant	1x400 TPD + 1x660 TPD + 1x1250 TPD	1x400 TPD + 1x660 TPD + 1x1000 TPD + 3x200	Reduction of capacity of 1250

S. No.	Facility	Configuration as per EC dated 06/12/2016	Configuration after proposed amendment	Remarks
			TPD	TPD to 1028 TPD Addition of 3x200 TPD (VPSA)
18	Billet caster	(1x2) +(2x4) +(1x5) Strand	(1x3) + (2x4) Total Strands 11 Nos	4 Strands surrendered
19	Bloom Caster	2x2 Strand	NIL	All units surrendered
20	Thin Slab Caster	3x1 Strand	2x1 Strand	1x1 strand surrendered
21	CSP	4.0 MTPA	4.0 MTPA	No change
22	Cold Rolling Mill	2.5 MTPA	2.5 MTPA	No change
23	Pipe and Tube Mill	0.8 MTPA	0.8 MTPA	No change
24	Galvanising / Galvalume Line	1.3 MTPA	1.3 MTPA	No change
25	Colour Coating	0.7 MTPA	0.7 MTPA	No change
26	WRM	0.45 MTPA	0.60 MTPA	Addition of 0.15 MTPA
27	Bar and Rod Mill	0.55 MTPA	0.60 MTPA	Addition of 0.05 MTPA
28	Captive Power Plant	710 MW (Coal fired, & WHRB)	Total 546 MW: 3x130 MW (CFBC-Coal & WHRB of DRI 5-12) + 40MW (AFBC & DRI 1-4) + 60MW (AFBC&DRI1-4) + 16MW WHRB of HR coke oven + 40 MW (250 TPH process steam boiler (Coal/Gas based)	Surrender of 150 MW coal fired CPP and addition of 40 MW (250 TPH coal/gas-based boiler.)
29	Cement Plant (Slag cement grinding and blending unit)	1.0 MTPA	2.0 MTPA	Addition of 1.0 MTPA
30	Slag processing for aggregates	-	300TPH + 150 TPH	New
31	Iron ore crusher for quality improvement	-	350TPH	New

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

S. No.	Raw Materials	Estimated Quantity (in TPA)			Source	Distance from project site (km)	Mode of transport
		As per EC (5.5 MTPA)	Revised (at 4.5 MTPA)	Change			

S. No.	Raw Materials	Estimated Quantity (in TPA)			Source	Distance from project site (km)	Mode of transport
		As per EC (5.5 MTPA)	Revised (at 4.5 MTPA)	Change			
1	Iron Ore Lump	350,000	260,000	-90,000	Barbil region	500	Road/Rail
2	Iron Ore Fines	10,270,000	9,786,209	-483,791	Joda/ barbil/ Koira region		Road/Rail
3	DRI Coal	2,268,000	1,850,000	-418,000	Import - M/s Glencore South Africa	400	Sea
4	Coking Coal (semi soft)	1,109,600	1,015,200	-94,400	Australia/ SA/ China/ Mozambique	400	Sea
5	Coking Coal (hard)	937,400	930,600	-6,800	Australia/ SA/ China/ Mozambique	400	Sea
6	Limestone	1,428,700	885,000	- 543,700	International market	400	Sea
7	Dolomite	219,800	180,000	-39,800	Baradwar region	180	Rail
8	Ferro Alloy	50,150	12,000	-38,150	Joda/ barbil/ Koira region	500	Road/Rail
9	Thermal Coal	3,678,200	2,835,800	-8,42,400	Coal India Ltd. mines	13	Rail
10	Purchased Coke	228,500	0	-2,28,500	-	-	-
11	Purchased DRI	123,600	145,262	21,662	Local market	100	Road/Rail
12	Quartzite	65,000	40,400	-24,600	Local source	120	Rail
13	Bentonite	40,000	40,000	0	Import	400	Sea
Total		**20,768,950**	**17,980,471**	**-2,788,479**			

15.13.9 Existing Water requirement is 108600 m^3/day which will be reduce to 85608 m^3/day after proposed change in configuration. Water requirement is obtained from backwater reservoir of Hirakud Dam and permission for 45 cusecs (~ 110095 m^3/hr) has been from obtained Office of Executive Engineer, Main Dam Division, Burla Department of Water Resource (Government of Odisha) vide letter No. 1739 dated 14/02/2020.

15.13.10 Existing power requirement of 672 MW, which will be reduced to 605.6 MW after proposed change in configuration. Power is obtained from 546 MW of captive power plant and remaining from Grid.

15.13.11 Baseline Environmental Studies:

Period	December, 2020 to February, 2021 from Post project monitoring data
AAQ parameters at 6 Locations (min and max)	$PM_{2.5}$ = 37.1 to 49.3 μg/m^3 PM_{10} = 70 to 92.4 μg/m^3 SO_2 = 9.9 to 16.1 μg/m^3 NO_x = 21.1 to 31.8 μg/m^3
Incremental GLC	PM_{10} = 2 μg/m^3 (Level at 2.6.km in NE Direction)

Period	December, 2020 to February, 2021 from Post project monitoring data
level	SO_2 =5 μg/m^3 (Level at 2.6 km in NE Direction) NOx = 5 μg/m^3 (Level at 2.6 km in NE Direction)
Ground water quality at 4 locations	pH: 7.17 to 7.41, Total Hardness: 65.33 to 94 mg/l, Chlorides: 23.33 to 29.33 mg/l, Fluoride: 0.24 to 0.33 mg/l. Heavy metals (Chromium):<0.05 mg/l
Surface water quality at 4 locations	pH: 7.11 to 7.32; DO: 3.6 to 6.43 mg/l BOD: 0.6 to 2.1.mg/l. COD from 13.4 to 26.8 .mg/l
Noise levels Leq (Day and Night)	50 to 58.7 dBA for the day time and 42.5 to 49.8 dBA for the Night time.
Traffic assessment study findings	The projected raw material transported by road would be at 5.5 MTPA is 10,334,890 TPA. The revised quantity at 4.5 MTPA would be 8,626,485 TPA. Considering 35 tons trucks, the number of trucks per day at 5.5 MTPA and 4.5 MTPA are 809 and 675 respectively. So, there would be a net reduction of 134 trucks per day or 17% reduction.
Flora and fauna	No Schedule I and endangered species in present in the study area.

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

S. No.	Type	Quantity in TPA			Utilization/ Remark
		As per EC of 5.5 MTPA	Revised Configuration of 4.5 MTPA	Change	
1	BF Slag	1,241,400	1,032,450	Reduced 208,950	To be used for Cement Making.
2	SMS Slag	1,089,300	889,300	Reduced 200,000	To be used for Road construction/ Land filling purpose, Paver Block Making after recovering metal from Slag Crushing unit
3	Mill Scale	1,09,083	90150	Reduced 18933	To be used in Sinter Plant
4	Flue Dust	1,50,000	108,000	Reduced 42,000	To be used in Sinter Plant
5	Fly Ash	1,521,234	1,089,104	Reduced 432,130	To be used for Brick making and also in Captive Cement Plant
6	Bottom Ash	352,936	272,276	Reduced 80,660	To be used for Road construction/ Land filling purpose
7	Lime/Dolo Fines	14,400	14,400	No change	To be sold to WBPCB authorized Vendor
	Hazardous Waste				
1	Used /Spent oil	180	150	Reduced 30	Storage in container on impervious floor under well ventilated covered shed followed by disposal through actual users having valid authorization from SPCB, Odisha
2	Waste residue containing oil	305	250	Reduced 55	Storage in impervious pits/ con-tainers under well ventilated covered shed

S. No.	Type	Quantity in TPA			Utilization/ Remark
		As per EC of 5.5 MTPA	Revised Configuration of 4.5 MTPA	Change	
					followed by disposal through Authorized HW incinerator / Co-Processing in Cement Kiln authorized by SPCBs/PCCs / CHWTSDF, Jajpur
3	Oil and grease skimming residues	306	250	Reduced 56	Storage in impervious pits/ con-tainers under well ventilated covered shed followed by disposal through Authorized HW incinerator / Co-Processing in Cement Kiln authorized by SPCBs/PCCs / CHWTSDF, Jajpur
4	Chemical Sludge from Waste water Treatment	856	700	Reduced 156	Storage in impervious floor/ pit under well ventilated covered shed followed by disposal in CHWTSDF, Jajpur
5	Acid Residues	31	25	Reduced 6	Storage in impervious floor/pit under well ventilated covered shed followed by disposal in CHWTSDF, Jajpur
6	Alkali Residues	31	25	Reduced 6	Storage in impervious pits I con-tainers under covered shed followed by disposal in CHWTSDF, Jajpur
7	Spent Ion Exchange Resin Containing Toxic Metals	7	6	Reduced 1	Storage in impervious pits / containers under well ventilated covered shed followed by disposal through Authorized HW incinerator / Co-Processing in Cement Kiln authorized by SPCBs/PCCs / CHWTSDF, Jajpur
8	Decanter Tank Tar Sludge	300	300	No change	Storage in impervious pits/ containers under well ventilated covered shed followed by disposal through Authorized HW incinerator / Co-Processing in Cement Kiln authorized by SPCBs/PCCs / CHWTSDF, Jajpur
9	Process wastes, Residues & Sludge	244	200	Reduced 44	Storage in impervious pits/ containers under well ventilated covered shed followed by disposal through Authorized HW incinerator / Co-Processing in Cement Kiln authorized by SPCBs/PCCs / CHWTSDF, Jajpur
10	Empty Barrels/ Containers/ Liners Contaminated with hazardous Chemicals / Wastes	24	20	Reduced 4	Storage on impervious floor under well ventilated covered shed followed by captive reuse / disposal through original supplier / Actual Users authorized by SPCB, Odisha
11	Zinc dross	2500	2500	No change	Storage in impervious pits / containers over impervious floor under well ventilated covered shed followed by disposal through Actual Users authorized by SPCB, Odisha

S. No.	Type	Quantity in TPA			Utilization/ Remark
		As per EC of 5.5 MTPA	Revised Configuration of 4.5 MTPA	Change	
12	ETL Sludge	-	120	Increased 120	Storage in impervious pits / containers over impervious floor under well ventilated covered shed followed by disposal through Actual Users authorized by SPCB, Odisha

15.13.13 Public Consultation (Part of the Original EC accorded on 06/12/2016)

Details of advertisement given	12/01/2016: National Paper 'New Indian Express' and 13/01/2016: local daily newspaper 'Sambad'.
Date of public consultation	17/02/2016
Venue	Playground of Lapanga High School
Presiding Officer	Shri Manish Agarwal, Additional District Magistrate, Sambhalpur.
Major issues raised	1. Air and Water Quality 2. Road Construction 3. Employment 4. Establishment of technical training center. 5. Health facilities 6. Drinking water facility.

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

S No	Area	2022	2023	2024	Total budget in crore
1	Road Infrastructure	Construction of road in Derba (Repairing 3 km) and Thelkoloi service road (1km)	Construction of road in Sripura (2 km) and Khadiapalli (1km)	- Construction of road in Dubhenchaper (3 km)and Lapanga(1km)	7
2	Rainwater harvesting	Construction of village pond at Lapanga	Construction of village pond at Dhubenchapper	Construction of village pond at Khariapalli	1.5
3	Healthcare facilities	Healthcare facility for local people in vicinity of the plant to address respiratory, skin, ENT issues etc. related to environmental pollution – Commencement of construction of building	Completion of construction	Procurement of equipment and engagement of medical staff (operational expenditure like staff salary and consumables to be borne by BPSL)	30
4	Drinking water & sanitation	Allocation of funds towards government drinking water mission and Sanitation in the close vicinity. The approved programmed would be communicated to MoEFCC through 6 monthly compliance	-	-	5

S No	Area	2022	2023	2024	Total budget in crore
		report			
5	Vocational training arrangements for women and youth	Vocational training courses arrangements for women through various Govt departments/ NGOs- Tailoring, beautician and mushroom cultivation etc. - 200 women Vocational Training courses for local youth through local ITIs for following trade- Electrician, Welder Fitter Electrician Mason Moto winding Machining etc for about 100 local youth	Tailoring, beautician and mushroom cultivation course - additional 200 women Electrician, welding, fitting and machining course for additional 100 local youth	Tailoring, beautician and mushroom cultivation course - additional 200 women Electrician, welding, fitting and machining course for additional 100 local youth	1.7
6	Education	Strengthening of village school library – 4 Nos. of PCs and 500 books with bookshelves to Thekoloi Hugh School and Dhubenchapar upper Primary school, Sripura High School & Bir Surendra Sai High School	Strengthening of village school library – 4 Nos. of PCs and 500 books with bookshelves to Thekoloi Upper PrimarySchool, Lapanga High School, Saraswati Sishu Vidya Mandir & Sripura Upper Primary School	Strengthening of village school library – 4 Nos. of PCs and 500 books with bookshelves to Bisadhi Upper Primary School, Bir Surendra Sai Upper Primary School, Lapanga Upper Primary School & Sripura Upper Primary School	3
7	Electrification/Solar Street Lighting	Solar LED lights at Lapanga, Thelkoloi - 50 each village	Solar LED lights at Dhubenchapper, Derba - 50 each village	Solar LED lights at Khariapalli, Khinda - 50 each village	1.8
Total					**50**

15.13.14 Existing capital cost of project was Rs. 9090 Crore for expansion project from 3 MTPA to 5.5 MTPA. The capital cost of the proposed project for 3.0 MTPA to 4.5 MTPA is Rs. 4900 Crores and the capital cost for environmental protection measures is proposed as Rs. 495.7 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 24.64 Crores. The employment generation from the proposed project/expansion is 2700. The detail of cost for environmental protection measures is as follows:

S	Description of Item	Existing (Rs. In Crores) (As	Proposed for 4.5 MTPA

No		per EC of 5.5 MTPA)		(Rs. In Crores)	
		Capital Cost	**Recurring Cost**	**Capital Cost**	**Recurring Cost**
1.	Air Pollution Control Measure	200	--	302.5	10.51
2.	Water Pollution, rainwater harvesting & solid waste management	90	--	107.2	11.43
3.	Environmental monitoring	30	--	6	0.9
4.	Greenbelt development	3	--	30	1.8
5.	Addressal of public consultation concern	164	--	50	--
Total		**457**	**10**	**495.7**	**24.64**

15.13.15 Existing green belt was developed in 73.25 ha area which is about 8.82% of the total project area of 829.73 ha (including 40.48 ha of Township) with total sapling of 147700 Trees (@ 2016 trees/ ha). Proposed greenbelt will be developed in additional 187.2 ha. Thus, total of 260.45 ha area (33% of total project area of 789.24 ha after excluding the 40.48 ha area of township) will be developed as greenbelt. A minimum 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 about 2500 trees per hectare. Total no. of 6,51,125 saplings will be planted and nurtured in additional 260.45 ha in 3 years.

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

Particulars	**As per EC dated 6/12/2016**	**After proposed change under para 7(ii)**	**% Decrease**
Land	829.73 ha	789.24 ha	4.88%
Greenbelt	33%	33%	-
Water	4525 m^3/hr	3567 m^3/hr	21.17%
Power	672 MW	605.6	9.88%
Raw materials	18137100	17980471	0.86%
Product	Crude Steel: 5.5 MTPA	Crude Steel: 4.5 MTPA	18.18%

15.13.17 Pollution load assessment:

Particulars	**As per EC dated 6/12/2016**	**After proposed change under para 7(ii)**	**% Decrease**
Air	PM ; 390.21 kg/hr SO_2 : 762.03 kg/hr NOx: 456.92 kg/hr	PM ; 361.4 kg/hr SO_2 : 610.7 kg/hr NOx: 420.3 kg/hr	**PM: 7.38%** **SO_2: 19.85%** **NOx: 8.01%**
Water	Zero discharge	Zero discharge	-
Solid and Hazardous waste	Solid Waste: 4478353 MTPA Hazardous waste: 4784 MTPA	Solid Waste: 3495680 MTPA Hazardous waste: 4546 MTPA	Solid Waste: **21.94%** Hazardous waste: **4.97%**
Traffic load	Additional 103 trucks per day	Additional 84 trucks per day	**18.44%**

15.13.18 Summary of violation under EIA, 2006/court case/show cause/direction if any, related to the project under consideration are given as below:

Types of direction	Description	Letter No & Date	Issues	Status
Closure direction	OSPCB Closure direction under Section 31(A) of Air(P&CP) Act,1981 and 33(A) of Water(P&CP) Act,1974 amended thereafter	Letter No-6989/IND_I_CON-4650, dated-07.05.2021	Regarding Stack emission from power plant and zero discharge issues	Reply to closure direction was sent to OSPCB vide our Letter dated 08/05/2021. Action plans and progress was sent to OSPCB vide our letter dated 31/05/2021. Performance Bank Guarantee No 1025521 BG 0000003 dated 06/08/2021 submitted to OSPCB vide our Letter No JSw/BPSL/Env/OSPCB/011 dated 06/08/2021 Modifications in ESPs of 40 MW, 60 MW and Boiler 1 of unit 3x130 MW completed and emissions achieved within norm. Accordingly, compliance status was submitted to OSPCB vide our letter no-JSWBPSL/ENV/OSPCB/050 dated 26/02/2022. **Revocation of Closure direction received from OSPCB vide Letter No-11721/IND-I-CON-4650 dated -09/08/2021.**
Direction	OSPCB Direction under Section 31(A) of Air(P&CP) Act,1981 and 33(A) of Water(P&CP) Act,1974 amended thereafter	Letter No-11377/IND-I-CON-4650-Dated-07/08/2021	Regarding issues at solid waste disposal site Derba	Compliance submitted at OSPCB by BPSL vide Letter No-SWBPSL/ENV/OSPCB/017 on 24/08/2021
Direction	OSPCB Direction under Section 31(A) of Air(P&CP) Act,1981 and 33(A) of Water(P&CP) Act,1974	Letter No-17816/IND-CON-4650, Dated-12/11/2021	Regarding issues at solid waste disposal site Derba	Compliance Report submitted by BPSL bearing letter No-JSWBPSL/ENV/OSPCB/028 dated 29/11/2021

Types of direction	Description	Letter No & Date	Issues	Status
	amended thereafter			

Certified compliance report from Regional Office:

15.13.19 The Status of compliance of earlier EC was obtained from Integrated Regional Office, Bhubaneswar *vide* letter no. 101-595/EPE/1560dated 11/11/2021in the name of M/s. Bhushan Steel and Power Limited on basis of site inspection carried out on 28/10/2021. TheActiontakenreportregardingthepartially/non-compliedcondition was submitted by project proponent to regional officer MoEF&CC, Bhubaneswar vide letter dated 28/11/2021. MoEF&CC (RO) evaluated the same and has issued closure report vide his letter No 101-595 EPE/1560 dated 07/12/2021 The details of the observations made by RO in the above closure report are as below:

S. No.	Non-compliances details	Observation of RO(abridged)	Condition no.			Re-assessment by IRO
			EC date	Specific	General	
1.	Phase IR&R is completed and for phase 2 additional 700 acre has been acquired.	Project authorities are requested to provide R&R detail.	6/12/2016	ii		Condition is treated as 'Assured to Comply'.
2.	PP initiated action for constructing Rainwater harvesting	Progress made w.r.t. Rainwater harvesting will be submitted.	6/12/2016	v		Condition is treated as 'Assured to Comply'.
3.	Roads to be made of concrete or black topped to reduce fugitive emission or to be cleaned by water Spray.	Road within the plant area got damaged and create dust pollution	6/12/2016	vii		Being complied.
4.	PP assured to comply with in June, 2022	RO plant along with CETP to treat100% wastewater.	6/12/2016	xii		Condition is treated as 'Assured to Comply'.
5.	Complied in a phased manner	Status of commitment of public hearing is to be submitted.	6/12/2016	xix		Condition is treated as 'Assured to Comply'.
6	Physical target sunder CER are given. BPSL will furnish progress statusin6 monthly reports.	Information on Enterprise social commitment and constitution of committee should be submitted.	6/12/2016	xx& xxii		Being complied

S. No.	Non-compliances details	Observation of RO(abridged)	Condition no.			Re-assessment by IRO
			EC date	Specific	General	
7.	PP spent 60 crores for development of peripheral area but progress made should be communicate d.	Detail information regarding CSR activities should be submitted.	6/12/2016	xxi		Complied
8.	Adequate no of canteen and launch shelters have been planned and constructed within March, 2022.	Sitting place for workforce		xxv		Condition is treated as 'Assured to Comply'
9.	Progress made to be communicated.	Housekeeping Needs improvement		-		Being complied.
10.	Greenbelt will be developed up to 33%.	Plantation in vacant area and road side.		-		Being complied
11.	PP submitted that information and regular health check-up is carried out.	Details of occupational health surveillance carried out with findings.		-	vi	complied
12.	Submitted information regarding intake, consumption, recycling and reuse.	Detail water budget plan should be submitted		-		complied
13.	Construction work will be started from 2022	Development of rainwater harvesting		-	vii	Condition is treated as 'Assured to Comply'
14.	PP replied in detail later.	Detail information (item wise) to be Submitted.			ix	Complied
15.	A new website is being developed by PP	The URL address of the company' s Website regarding uploading 6 months report should be submitted.			xi	Condition is treated as 'Assured to Comply'
16.	PP submitted environmental statement in Form-IV	A copy of Environmental statement in Form-IV should be submitted			xiii	Complied
17.	PP submitted that document	Date of financial closure, final			xv	Complied

S. No.	Non-compliances details	Observation of RO(abridged)	Condition no.			Re-assessment by IRO
			EC date	Specific	General	
		approval and date of commencing of land developmental work of the project should be submitted				

15.13.20 M/s. Bhushan Power & Steel Limited (BPSL) had earlier applied for EC under para 7(ii) of EIA Notification vide proposal no. IA/OR/IND/234756/2021 dated 04/01/2022 and the proposal was considered in 52nd meeting of the Re-constituted EAC (Industry-I) held on 27th January, 28th January and 31stJanuary, 2022 wherein the Committee returned the proposal in its present form due to technical deficiencies in the proposal.

15.13.21 The project proponent again applied for EC under para 7(ii) of EIA Notification vide proposal no. IA/OR/IND/257254/2022 dated 15/03/2022 and the proposal was considered in the 3rd meeting of the EAC held on 11-12th April, 2022. The observations and recommendations of the EAC are as follows:

Observations of the Committee (EAC during 11-12th April, 2022)

15.13.22 The Committee noted the following:

i. As per the closure report obtained from IRO, Bhubaneshwar on 07/12/2021, there are several non-compliances. PP did not mention current status with ATR of the EC noncompliance conditions in the presentation made before the EAC.
ii. As per AAQ modeling submitted by PP. Maximum GLC for all parameters are located at same point, clarification for same was not given by PP and consultant.
iii. There are three directions issued by Odisha Pollution Control Board for the instant proposal, PP has not submitted the detail of closure notice and the current status of the closure notice in s.no. 37 of Form 2.

Recommendations of the Committee (EAC during 11-12th April, 2022)

15.13.23 In view of the foregoing and after detailed deliberations, the committee recommended to defer the proposal to seek the additional information on following points:

i. Project proponent shall submit condition wise action taken report to the non-compliances reported by IRO along with the relevant supporting documents.
ii. Project proponent shall submit the details of notices/directions issued by the SPCB in the last two years along with its present status. Further, the project proponent shall submit explanation for not furnishing the said details in s.no. 37 of Form 2.
iii. Project proponent shall clarify the reasons for as the incremental ground level concentrations for all the pollutants are falling in the same distance and direction.
iv. Project proponent shall provide the details regarding litigations pending against the proposed project.

15.13.24 The proponent submitted the ADS Reply on 29.04.2022 on PARIVESH. Point-wise reply of ADS is given as below:

(i) Project proponent shall submit condition wise action taken report to the <u>non-compliances</u> reported by IRO along with the relevant supporting documents.

RO, MoEF&CC inspected the plant during October 2021 and submitted his report. IRO had raised feedback from BPSL on status of 17 points on which PP had to take actions. Accordingly, PP submitted the action taken report on 27th November 2021 with all details and then RO, MoEF&CC submitted his closure report dated 07.12.21. As per his closure report ten points were noted as "complied with" or "being complied with" and rest seven points were marked as "Assured to comply".

Current status of these seven points is given below –

Sl. No. as per closure report	Information sought	Action Plan submitted and Current Status
#1	Details of R & R issues including compensation (have details of meetings held and actions taken)	**<u>R&R of Phase II (700 acres for expansion to 5.5 MTPA):</u>** 111 PDF identified; 50 acres land identified for setting up R&R colony. Due to NCLT & Covid-19, there was no progress in R&R activities by BPSL. After taking over by JSW, discussions have been initiated with local authorities to complete the process of R&R including compensation & resettlement. BPSL has requested the Special Land Acquisition Officer, Sambalpur vide our letter No. Admin 2022/35 dated 4.04.22 (Annexure 1) to conduct RPDAC (Regional Peripheral Development Action Committee) meeting and include the following in agenda so that R&R can be completed at the earliest. Finalizing of PDF list, Finalization of R&R sites, Finalization of R&R benefits etc. RPDAC meeting is expected very soon within one month.
#2	Progress on Rainwater harvesting work	Two Nos. of rainwater harvesting reservoirs of capacity of 3.34 Lac Cum have already been established. Work order has been issued to M/s. KRG Rain Water Foundation of Chennai who are experts for implementation of rainwater harvesting projects. The will conduct feasibility study and suggest necessary measures for further implementation of rain water

Sl. No. as per closure report	Information sought	Action Plan submitted and Current Status
		harvesting. Study has been completed and draft report is received on 25th April 2022 which is being examined. **Salient points of the draft report are given below -** 1.0 Average rainfall in the area is around 1000 to 1400 mm per annum 2.0 Rainwater harvesting potential is estimated to be is 12,72,960 cum per annum. 3.0 The best options available are few ground water recharges as water table is shallow in the area and major harvesting through surface water storage. 4.0 Roof water can be taken to ground water re-charge wherever suitable water table available 5.0 Surface runoff water can be collected in various ponds to be created at various locations for direct reuse of reuse after necessary treatment Feasible options will be finalized with the consultants by mid-May 2022 and finalized actions will be completed by Dec 2023
#4	100% utilization of treated wastewater	For 100% reuse and utilization of treated waste water RO plant of capacity 510 m^3/h has been commissioned & the same is in Operation. All the 03 Nos. of existing STP's have been Upgraded ant they are commissioned in Dec 2021. All the STP's are operating satisfactorily. By March 2022 all the Effluent water and storm water drains have been segregated throughout the plant. Up-gradation of ETP in CRM is under progress by M/s. Thermax Ltd. The same will be commissioned by Sep 2022.
#5	Status of compliance of commitments made to public during public hearing	Action plan submitted and will be completed in phases by 2024.

Sl. No. as per closure report	Information sought	Action Plan submitted and Current Status
#8	Action plan for construction of shelters for taking lunch during lunch period (Back up fig of shelters)	6 Nos. of canteens have been established within the plant at various locations for employees and workers. Construction of additional 06 canteens is in progress which will be completed by May 2022.
#13	Construction of rainwater structures	Completion by Dec 2023. Details provided above in at #2
#15	Uploading six monthly compliance report to company website	Environment Statement submitted on 25.09.21 Copy submitted to RO, MoEF&CC dated 27.11.22 Website for JSW BPSL is under construction, Uploading by Aug 2022.

(ii) Project proponent shall submit the details of notices/directions issued by the SPCB in the last two years along with its present status. Further, the project proponent shall submit explanation for not furnishing the said details in Sl. No. 37 of Form 2.

There are total 6 Nos directions issued by Odisha State Pollution Control Board in last two years. Status of these directions are given below -

S. No.	Description of direction	Action taken and current status
1	Direction of Closure u/s 33A of the water (prevention & Control of pollution) Act,1974 and U/s 31 A of the Air(prevention & Control of Pollution)act 1981 and amended thereafter vide letter No. 2310/IND-I-CON-4650, dated - 26.02.2020 due to non compliance of PM emissions from CPP and incomplete installation of FTP in SMS.	Repairing of ESP of CPP units were done by replacement of old rectifiers with new rectifiers. New FTP –3 of SMS 1 was commissioned and compliance was reported to OSPCB The compliance were verified by OSPCB officials and permission for operation of CPP 3x130 MW unit-1 CFBC-1, CFBC-3 and EAF-3 of SMS-1was issued vide OSPCB Letter No. 11058/IND-I-CON-4650 Dated 09.11.2020. Matter is **closed**.

S. No.	Description of direction	Action taken and current status
2	Direction of Closure u/s 33A of the water (prevention & Control of pollution) act, 1974 and U/s 31 A of the Air (prevention & Control of Pollution) act 1981 and amended thereafter vide letter No. 9727/IND-I-CON-4650, dated - 06.10.2020 due to non compliance and emission from CPP (40 & 60 MW).	The ESP of 40 MW & 60 MW CPP units were rectified and compliance was reported to OSPCB. After inspection and verification of compliance OSPCB vide their Letter No. 11058/IND -I-CON-4650 Dated 09.11.2020 for operation of CPP 3x130 MW unit-1 CFBC-1, CFBC-3 and EAF-3 of SMS-1. Matter is **Closed.**
3	OSPCB issued Direction vide Letter No. 9733/IND-I-CON-4650 Dated 06.10.2020 under Section 31(A) of Air (P&CP) Act,1981 and 33(A) of Water (P&CP) Act,1974 amended thereafter for Stoppage of effluent discharge and install RO system by February 2021 to achieve zero discharge.	RO system of 550 m^3/hr has been installed for ensuring zero discharge from the plant premises. Also waste water collection tanks have been constructed at various locations for collection and treatment in RO system and reuse in the plant. Compliance was verified by the Board officials and after satisfactory progress of work CTO was issued by OSPCB vide letter no. 4955/IND-I-CON-4650 dated 25.03.2021. Matter is **closed**.
	OSPCB issued Closure Direction vide Letter No. 6989/IND-I-CON-4650 Dated 07.05.2021 under Section 31(A) of Air (P&CP) Act,1981 and 33(A) of Water (P&CP) Act,1974 amended thereafter for closure of CFBC Boiler 1 of 3x130 MW , AFBC Boiler of 40 MW and AFBC Boiler of 60 ME CPP Units due to stack emission issues and zero liquid discharge	Reply to closure direction was sent to OSPCB vide our Letter dated 08.05.21. Action plan and progress report was submitted to OSPCB vide our letter dated 31.05.21. Performance Bank Guarantee and affidavit was submitted to OSPCB vide our Letter dated 06.08.21 for completion of all works within committed time. After submission of BG, Permission for operation of closed CPP Boilers was accorded by OSPCB vide dated 09.08.2021 with condition to operate the units in reduced load till all rectification works are completed.

S. No.	Description of direction	Action taken and current status
		Rectification of bag filter of Boiler 1 of 3x130 MW CPP unit was completed on 13.09.2021 and modifications in ESP's of 40 MW, 60 MW CPP units were completed on 30.12.2021 within the committed date and the same was intimated to OSPCB vide our letter dated 31.12.2021. Also request was made for extension of time to complete CRM ETP upgradation. All compliances with regards to CPP units were verified and revised CTO dated 25.03.2022 was issued by OSPCB for operation of all plant units including the CPP in full load. Also our request for time extension for completion of CRM ETP work by 30.11.2022 has been approved. CRM ETP up-gradation work is in progress and the same will be completed by Sep 2022.
	OSPCB issued direction under Section 31(A) of Air(P&CP) Act,1981 and 33(A) of Water P&CP) Act,1974 amended thereafter vide Letter No-11377/IND-I-CON-4650 Dated - 07.08.2021 due to complaint f pollution at Derba solid waste disposal site by a villager at **NGT**. OSPCB directed the following: • Stop dumping at Govt. land. • Provide retaining wall, garland drains in all the dumps • Tree Plantation on haulage road of dump site • Carry out study on slope stability.	Action plan and Compliance submitted to OSPCB by BPSL vide Letter No. JSWBPSL/ENV/OSPCB/ 017 on 24.08.2021 • Dumping of solid waste on Govt. Land has been stopped. • Toe wall/retaining wall and garland drain has been provided in all the • Dumps except Mound No 7 where work is in progress. • Tree plantation by sides of haulage road and dumping mound has been done except mound Nos & where work is in progress. • Experts of Sambalpur University have been engaged to carry out • Slope stability study. The study is under progress.
	OSPCB Direction under Section 31(A) of Air(P&CP) Act,1981 and 33(A) of Water (P&CP) Act,1974 amended thereafter vide Letter	Action plan and Compliance Report submitted by BPSL bearing letter No. JSWBPSL/ENV/OSPCB/028 dated - 29.11.2021.

S. No.	Description of direction	Action taken and current status
	No-17816/IND-I-CON-4650, Dated-12.11.2021 Regarding completion of above jobs like Construction of retaining wall at Mound 7, plantation along the road, run off water treatment facility and study for ground water contamination.	• The construction of retaining wall at mound no. 7 is under progress. It will be completed by 30.04.2022. • Tree plantation by sides of haulage road and dumping mound is in progress. • Experts of Sambalpur University have been engaged to carry out • Slope stability study. The study is under progress. Report will be submitted by 30.04.2022
	Direction under section 33(A) of water (P&CP) Act,1974,and section 31(A) of Air (P&CP) Act, 1981 vide Letter No-1134/IND-I-CON-4650,dated 25.01.2022 Regarding payment of Rs. 57.60 Lacks towards environmental compensation.	Environmental Compensation deposited vide our letter No. JSWBPSL/ENV/ OSPCB/046 dated-08.02.2022.
	OSPCB Direction under Section 31(A) of Air(P&CP) Act,1981 and 33(A) of Water P&CP) Act, 1974 amended there after vide Letter No 4977/IND-I-CON-4650 Dated 29.03.22 To comply with above jobs specially on mound 7.	Action plan submitted vide our letter No. JSWBPSL/ENV/OSPCB/22-23/001 dated 05.04.22 for completion of jobs.
	Case Status at NGT	NGT has disposed of the case and instructed to comply with all the conditions by 30.04.2022.
	OSPCB Direction under Section 31(A) of Air(P&CP) Act,1981 and 33(A) of Water (P&CP) Act,1974 amended thereafter vide Letter No-1014/IND-I-CON-4650, Dated-22.01.2022 and directed the following: • The unit shall stop all activities of tailing disposal at the breached site till completion of restoration work. • Stop beneficiation of low grade iron ore fine in the iron ore beneficiation plant till tailing pond with adequate	Action plan submitted by BPSL bearing letter Dated - 25.01.2022. • Disposal of iron ore fines was stopped at the said site and all restoration works have been completed • Beneficiation of low grade iron ore fines has been stopped. • We shall take prior permission to start operations at site. • Presently study of the site is under progress by the experts of Parala Engineering College, Berhampur.

S. No.	Description of direction	Action taken and current status
	infrastructure shall ready for operation with permission from Board (MoM of 14.02.22) • The unit shall regularize the storage of fines stockyard located outside of plant premises with permission of board. (MoM of 14.02.22) • The unit shall make a study on the ground water contamination of breached area and safety/stability of constructed dyke of iron ore stock yard.	

The uploading of the directions mentioned above was inadvertently missed out in Form 2. However, the details of the directions received from OSPCB were mentioned in the Addendum EIA report. The details of the two directions on fly ash pollution issue and iron ore tailing pond breach issue were uploaded along with EDS reply.

(iii) Project proponent shall clarify the reasons for as the incremental ground level concentrations for all the pollutants are falling in the same distance and direction.

The meteorological data used for the modelling exercise for the revised configuration was monitored as part of 5.5 MTPA EIA study from December 2014 – March 2015. This was done to enable a like to like comparison with the GLC modelled in the previous EIA. As observed both the previous GLC and revised GLC is falling in the SW to S direction as the monitored predominant wind direction is from the NE. The max GLC (considering the entire study area) at 4.5 MTPA stage has reduced from 30 µg/m3 to 28 µg/m^3 for PM, 24 µg/m^3 to 20 µg/m^3 for SO_2 and 24 µg/m^3 to 22 µg/m^3 for NOx as compared to 5.5 MTPA stage. This is well corroborated by the reduction in pollution load at 4.5 MTPA stage.

The GLC corresponding to the highest value for PM, SO_2 and NOx are falling mostly over the Hirakud reservoir. However, the nearest habitation where the highest glcs are falling is Lapanga village located 2.6 km from the existing plant boundary in SSW direction where the baseline data has also been collected. This distance is therefore reported for all 3 pollutants.

(iv) Project proponent shall provide the details regarding litigations pending against the proposed project.

There is only one litigation case (court case) and status of the case is as below -

Case Details	A case was filed by Mr. Bhagwan Pradhan of village Derba against BPSL at Hon'ble NGT, EZB, Kolkata alleging ash and solid waste disposal in Govt land and resulting pollution. NGT constituted a

	committee including OSPCB, District magistrate Sambalpur and SEIAA to inspect the site and submit report. BPSL was in NCLT under administrative control of Bankers: 26 July 2017 JSW take over from NCLT: 26 March 2021
Chronology of actions	
03.03.2021	NGT admitted the case and directed OSPCB and District Collector to take remedial action and made OSPCB to be the nodal agency for coordination and compliance, and to file an ATR by 2 months.
13.08.2021	OSPCB submitted an affidavit recommending 6 actions to be taken by BPSL after an inspection by the representatives of the Board to site on 20.04.21.
24.09.2021	NGT directed OSPCB for a fresh inspection for analysis of soil & water; condition of ash mound; degradation if any due to dumping; status of 100% use of ash; assessment of environment compensation and penalty and remedial measures for restoration.
12.11.2021	OSPCB submitted another affidavit after the inspection mentioning: 1. All soil samples are within permissible limits 2. Suggestion to the industry to get a study to examine the reasons of high Fe and Mn in water and remedial measures 3. Additional borewells to monitor water quality 4. Higher height of retaining wall to safeguard agricultural land 5. Reclamation of ash mound-7 biologically with ta toe wall 6. Treatment of water from ash mound 1-5 and 7 to avoid solid carryover.
28.03.2022	OSPCB submitted the compliance report after the inspection of site on 24.02.2022
11.04.2022	NGT Directed the following: Complete construction of toe walls and retaining wall of ash mound-7 by 30.04.2022 Complete plantation over ash mound-7 by 30.04.2022 Submission of soil & water analysis by Sambalpur University by 30.04.2022 and ensure compliance by OSPCB by 30.05.2021 Closure of Debra site by 30.10.2022 and submit the location of alternate site by 30.04.2022. While rejecting the request of BPSL for the penalty to be charged to the earlier owner, The Court ordered OSPCB to utilize the interim environment compensation deposited by BPSL towards restoration of the site and final environment compensation to be received from BPSL after submitting of reports and compliances. With the aforesaid directions, the Original Application No.65/2020/EZ

	is accordingly disposed of (Judgement submitted by PP)
Current status	**While the case filed under NGT has been closed, the follow up actions are detailed in Direction-4 of OSPCB.**

15.13.25 Based on the ADS reply by the proponent, the proposal was re-considered in the 5th meeting of the EAC held on 12-13th May, 2022. EAC noted that PP has submitted the ADS reply on Portal on 29.04.2022. The information submitted without covering letter/letter head of the Company. EAC has taken a serious note on this issue and advised the PP that all the communications/information should be submitted through letter head on Parivesh portal.

Written Submission by the PP (During 12-13th May, 2022)

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

i. PP has given undertaking the they will adopt following 10 villages and develop them as model villages within 5 years namely Thelkoli, Dhubenchapal (Gontiapada), Banjiberna, Siripura, Kheruwal, Sradhapali, Maliatika, Khadiapali, Sunamal, Derba.

ii. PP will undertake renovation and up gradation of 03 Nos. of ponds of following villages by 31/03/2023, Thelkoloi-2nos. Siripura-01 No

iii. The PP shall prepare comprehensive plan for reduction of PM emission from Integrated Plant and submit MoEF&CC by 30/06/2022.

15.13.27 After detailed deliberations, the Committee recommended the proposal for grant of Environment Clearance, under the para 7(ii) of EIA Notification, 2006 subject to the stipulation of specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements.

Observations of the Ministry

15.13.28 The matter was examined in the Ministry and accordingly vide letter No. IA-J-11011/40/2009-IA-II(I) dated 14th July, 2022 directed PP to submit the following information:

(i) Project proponent is requested to submit the updated compliance report in respect of Order of Hon'ble NGT, Kolkata dated 11.04.2022 in the case of Mr Bhagwan Padhan along with copy of orders/compliances.

(ii) Project proponent is requested to submit the details / status of compliances of the Public Hearing's Action Plan proposed at the time of EC in 2016.

(iii) Compliance of all points in CCR by IRO, MoEFCC must be ensured and submitted to the Ministry.

15.13.29 Based on the above observations, the proposal is re-considered during the 15th meeting of the EAC for Industry-I sector held on 17-18th October, 2022.

Submission of the PP:

15.13.30 The ADS reply was submitted vide letter dated 20.09.2022 and uploaded on PARIVESH portal on 27th September 2022 as follows:

i. **Point 1: Project proponent is requested to submit the updated compliance report in respect of Order of Hon'ble NGT, Kolkata dated 11.04.2022 in the case of Mr Bhagwan Padhan along with copy of orders/compliances.**

Reply: A case was filed By Mr. Bhagwan Pradhan of village Derba against BPSL at Hon'ble NGT, EZB, Kolkata alleging ash and solid waste disposal in Govt. land and resulting pollution. NGT constituted a committee with OSPCB as nodal agency and members District Magistrate Sambalpur & SEIAA and directed to inspect the site and submit report. The committee inspected the site on 20.04.2021 and submitted the joint inspection report to Hon'ble NGT.

The matter was heard by Hon'ble NGT, EZB Kolkata on 30.03.2022 and vide its order dated 11th April 2022 The Original Application No.65/2020/EZ was disposed.

Based on the order of Hon'ble NGT, EZB Kolkata The Odisha State Pollution Control Board had issued a Direction vide letter no. 8918 dated 23.05.2022 to ensure compliance.

All the conditions of the Direction has been complied and compliance report has been submitted to OSPCB vide our letter dated 27.06.2022.

The site was inspected on 11.10.2022 by The Regional Officer of OSPCB, Sambalpur to verify the compliance status.

Final: The matter stands closed now.

ii. **Point 2: Project proponent is requested to submit the details / status of compliances of the Public Hearing's Action Plan proposed at the time of EC in 2016.**

Reply: BPSL obtained EC for 5.5 MTPA in December 2016.

BPSL was into NCLT from July 2017 till March 2021, hence there was very little progress on the expansion project and other social related activities. JSW Steel took over the plant on 26th March 2021. After taking over the project and other social activities have been initiated. Details of social activities initiated during year 2021-22 after taking over along with expenditure is mentioned below. The action plan for undertaking various activities in the plant periphery to fulfill the commitments made during public hearing is also submitted.

DETAILS OF SOCIAL WELFARE ACTIVITIES & EXPENSES FOR 2021-2022

S. No.	Project Name	Major Interventions	Budget Allocated (Rs. Crores)	Actual Expenditure made so far (Rs. Crores)	Ongoing Projects (Rs. Crores)	Details of activities undertaken
1	Sports promotion	Sports promotion	0.01	0.01	-	Intra-block Knockout

S. No.	Project Name	Major Interventions	Budget Allocated (Rs. Crores)	Actual Expenditure made so far (Rs. Crores)	Ongoing Projects (Rs. Crores)	Details of activities undertaken
	& institution building	at Dhubenchaper				football tournament organised during November 2021 at Dhubenchaper village. Villages covered is Dhubhenchaper
2	Enhance Skills & rural livelihoods through nurturing of supportive ecosytems & innovations	Sewing training cum Production center renovation.	0.04	0.04	-	Established a Sewing Training Centre at Thelkoloi village for organizing vocational training of sewing for about 60 ladies at a time 30. This will run in two shifts and annually 120 ladies will be trained. Villages covered is Thelkoloi.
3	Public health infrastructure, capacity building & support programs	Mobile Medical Unit & Community Dispensary	0.31	0.31	-	1. Procured and deployed one Mobile Medical Unit for 10 revenue villages consisting of 26 hamlets. This Mobile medical unit is covering every hamlet on weekly basis to ensure regular health check ups. Villages covered are – Thelkoloi, Dhubenchaper, Lapanga, Khadiapali, Bansimal, MaliaTikra, Sripura, Gumkarama, Ghichamura & Derba 2. Established a Community Dispensary at Thelkoloi Village.
4	Integrated water resources management	Drinking water supply in villages	0.46	0.36	0.10	Drinking water supply by tankers in 11 villages around the plant complex. Villages covered are – Thelkoloi, Dhubenchaper, Lapanga, Khadiapali Sardhapali, Bansimal, Pauli pada, Gontia pada, Banjiberna, Bhuliadihi & Sardhapalli
5	Educational infrastructure & Systems strengthening	School & Anganwadi Center Transformation, Udaan/Umeed Scholarship,	1.51	0.85	0.66	Renovated & upgraded 12 Anganwadi Centers Renovated & upgraded 6 schools in 5 villages. Support in 5 Nos. Mo School Programme of Govt. of Odisha

S. No.	Project Name	Major Interventions	Budget Allocated (Rs. Crores)	Actual Expenditure made so far (Rs. Crores)	Ongoing Projects (Rs. Crores)	Details of activities undertaken
						Facilities like computer lab, smart class rooms, library, toilets and overall renovation have been provided in above these schools. Udaan & Umeed Scholarship to the meritorious students of Sambalpur and Jharsuguda districts. Support to Thelkoloi High School
6	General community infrastructure support & welfare initiatives	Construction of Community Centers, road & drain repair etc.	5.52	1.85	3.67	Established total 10 Nos community centers Installation of hand pumps – 3 Nos. Installation of Street Light - 186 Nos. Installation of 01 Pump room at village Thelkoloi Repair and Renovation of Road & Drain at village Thelkoloi
7	Waste management & sanitation initiatives	Waste management at DIZ Villages	0.61	0.58	0.03	Waste Collection and disposal at following villages – Thelkoloi, Brahmanpada-Thelkoloi. Gandapada-Thelkoloi, Sripura Dhubenchhaper
8	COVID 19 Support & rehabilitation program	Setting up of COVID Care Center at Rengali	1.42	1.42	-	Establishment of Covid Care Center at Odisha Adarsh Vidyalaya village Rengali & Supply of Oxygen to hospitals.
TOTAL			**Rs 9.88 Cr**	**Rs 5.42 Cr**	**Rs 4.46 Cr**	

ACTION PLAN FOR SOCIAL WELFARE ACTIVITIES WITH ESTIMATED COST

No.	Area	2022	2023	2024	Total Budget in (Rs. Crore)
1	Road Infrastructure	Construction of road in Derba (Repairing 3 km) and Thelkoloi service road (1km)	Construction of road in Sripura (2 km) and Khadiapalli (1km)	Construction of road in Dubhenchaper (3 km) and Lapanga (1km)	7.0
2	Rainwater	Construction of village	Construction of	Construction of	1.5

No.	Area	2022	2023	2024	Total Budget in (Rs. Crore)
	harvesting	pond at Lapanga	village pond at Dubenchapper	village pond at Khariapalli	
3	Healthcare facilities	Healthcare facility for local people in vicinity of the plant to address respiratory, skin, ENT issues etc. related to environmental pollution – Commencement of construction of building	Completion of construction	Procurement of equipment and engagement of medical staff (operational expenditure like staff salary and consumables to be borne by BPSL)	30.0
4	Drinking water & sanitation	Allocation of funds towards Government drinking water mission and Sanitation in the close vicinity. The approved programmed would be communicated to MoEFCC through 6 monthly compliances	-	-	5.0
5	Vocational training arrangements for women and youth	Vocational training courses arrangements for women on Tailoring, beautician and mushroom cultivation etc - 200 women Vocational Training courses for local youth through local ITIs on Electrician, Welder, Fitter, Electrician, Mason, Moto winding, Machining, etc. For about 100 local youth	Tailoring, beautician and mushroom cultivation course- additional 200 women. Electrician, welding, fitting and machining course for additional 100 local youth	Tailoring, beautician and mushroom cultivation course- Additional 200 women Electrician, welding, fitting and machining course for Additional 100 local youth	1.7
6	Education	Strengthening of village school library – 4 Nos. of PCs and 500 books with bookshelves to Thekoloi Hugh School and Dhubenchapar upper Primary school, Sripura High School & Bir Surendra Sai High School	Strengthening of village school library – 4 Nos. of PCs and 500 books with book shelves to Thekoloi Upper Primary school, Lapanga High School, Saraswa ti Sishu Vidya Mandir & Sripura Upper Primary School	Strengthening of village school library – 4 Nos. of PCs and 500 books with bookshelves to Bisadhi Upper Primary School, Bir Surendra Sai Upper Primary School, Lapanga Upper Primary School & Sripura Uppe	3.0

No.	Area	2022	2023	2024	Total Budget in (Rs. Crore)
				Primary School	
7	Electrification/Solar Street Lighting	Solar LED lights at Lapanga, Thelkoloi - 50 each village	Solar LED lights at Dhubenchapper, Derba - 50 each village	Solar LED lights at Khariapalli, Khinda - 50 each village	1.8
TOTAL					**Rs 50 Crores**

iii. **Point 3: Compliance of all points in CCR by IRO, MoEF&CC must be ensured and submitted to the Ministry.**

Reply: Mr. Sandeep Nandi from IRO, MoEF&CC, Bhubaneswar inspected plant on 24th August 2022, to verify the compliance status and submitted his report Vide letter no. 101-595/22/EPE dated 16.09.2022 to I.A. Division (Industry – I), MoEF&CC, New Delhi.

It can be noted from the report that actions have been taken substantial progress has been made as per commitment to comply with all the EC conditions

15.13.31 Based on the above submission, the final deliberations and recommendations of the EAC are as follows:

Deliberations by the Committee

15.13.32 The Committee noted the following:

1. The EAC deliberated on the details submitted by the project proponent pertaining to updated compliance report in respect of Order of Hon'ble NGT, Kolkata dated 11.04.2022 in the case of Mr Bhagwan Padhan. PP has reported that as per order, the OSPCB had issued a Direction vide letter no. 8918 dated 23.05.2022 to ensure compliance. All the conditions of the Direction has been complied and compliance report has been submitted to OSPCB vide our letter dated 27.06.2022. The site was inspected on 11.10.2022 by the Regional Officer of OSPCB, Sambalpur to verify the compliance status and as such the matter stands closed.
2. The EAC further deliberated on the submission of information w.r.t. details of social welfare activities & expenses for 2021-2022 and action plan for social welfare activities with estimated cost for next three years and observed that the proposed action plan is not satisfactory to address the issues. In view of the same, the project proponent requested EAC to allow them to revise the action plan and reappear before the EAC for appraisal.
3. The Committee also deliberate on compliance of all points in CCR by IRO, MoEF&CC wherein EAC observed that IRO in its report dated 16.09.2022 has still reported partly complied in some of the conditions. In view of the same, EAC is of the opinion that PP

has to comply with the partly complied conditions and the updated status shall be submitted in the next EAC meeting.

4. The EAC also deliberated on the proposed plantation and is of the opinion that greenbelt shall be completed by 2023. In this regard, PP needs to submit the adequate action plan alongwith with commitment and timelines.

5. **In view of above, the EAC concluded that the reply submitted by project proponent is not adequate/satisfactory. The PP/Consultant submitted that they will submit the revised information and their case may be reconsidered after submission of revised information.**

Recommendations of the Committee

15.13.33 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** on account of the shortcomings as detailed in para 15.13.32 above. The proposal shall be considered after submission/uploading of requisite information on Parivesh portal in next EAC meeting.

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Amendment of Environment Clearance

Agenda No. 15.14

15.14 Expansion of Sponge Iron Plant production from 3,00,000 TPA to 3,75,000 TPA through process optimization by M/s MSP Steel and Power Ltd, located at Village Jamgaon, District Raigarh, Chhattisgarh - Amendment of Environment Clearance condition regarding.

[Proposal No. IA/CG/IND/271935/2022, File No. J-11011/267/2007/IA-II (I)]

15.14.1 M/s MSP Steel and Power Ltd has made an online application vide proposal no. IA/CG/IND/271935/2022 dated 10.06.2022 along with Form 4 and sought for amendment in Environmental Clearance accorded by the Ministry vide File no. J-11011/267/2007-IA.II(I) dated 26.12.2019 w.r.t. waiver of additional condition no. (ii) at para 17 pertaining to usage of air cooled condenser in power plant.

Details submitted by Project proponent

15.14.2 M/s. MSP Steel and Power Limited was initially granted environmental Clearance by MoEF&CC vide letter No. J-11011/267/2007-IA II (I) dated 02/04/2009 for capacity expansion of Billet production from 95,000 to 695,000 TPA and Captive Power Plant from 16 MW to 52 MW. Subsequently, amendment to the environmental Clearance was issued on 9/9/2010 for change in the capacity of Pellet plant from 0.6 MTPA to 0.9 MTPA and Captive Power Plant from 20 MW to 44 MW (AFBC Boiler). Thereafter, another amendment to the environmental Clearance was issued on 23/08/2012 for change in configuration of Steel

Melting Shop within permitted production capacity of 672,172 TPA Billets and inclusion of 4.5 MW biomass based power plant. Thereafter, M/s. MSP Steel and Power Limited obtained EC under para 7(ii) of EIA Notification, 2006 vide letter dated 26.12.2019 for expansion of Sponge Iron Plant production from 3,00,000 TPA to 3,75,000 TPA through process optimization.

15.14.3 The aforesaid EC dated 26.12.2019 was granted, inter-alia, with a specific condition that *"Air cooled condenser in power plant shall be used."*

15.14.4 The instant proposal is for seeking amendment in EC dated 26.12.2019 with respect to waiver of the additional condition no. (ii) at para 17 pertaining to usage of air cooled condenser in power plant as follows:

S. No.	Details as per EC dated 26.12.2019	Proposed Amendment in EC
1.	Para 17 Specific Condition No. (ii) **Air cooled condenser in power plant shall be used.**	Para 17 Specific Condition No. (ii) **Existing water cooled condenser (WCC) in power plant shall be continued.**

15.14.5 PP reported that there is no change in configuration & capacity of units in granted EC.

15.14.6 **Reason for seeking amendment in EC:** PP has submitted that due to the technical constraint and unfavourable site condition it is difficult to install Air Cooled condenser in power plant. PP has submitted that:

i. MSP's plant in Raigarh is under water sufficiency zone.
ii. Usually Air Cooled Condenser (ACC) in CPP is recommended in a water scarcity zone declared by the Central Ground Water Authority, GoI. Whereas plant location in Raigarh does not fall under Water Scarcity zone.
iii. MSPSPL's operation is based on 2 MCM Surface water from Kur Nala sanctioned by WRD, CG Govt. vide their Water Cooled System. The PP has been sourcing by constructing in-stream storage infrastructure approved by the CG Government.
iv. Existing Turbine and connected cooling system is designed as per Water Cooled Condensation system. Change of cooling system to Air Cooled Condenser (ACC) would involve substantial & cost intensive modification of existing WCC, which has got operation life of more than 10 years further.
v. ACC require more space which is not available at the existing site layout finalised in 2008.
vi. ACC operation consumes more Auxiliary power of about 1.3% the WCC capable of rendering equal output in addition to reduced efficiency of 3% approx for low thermal conductivity. Excess consumption of power generated by greater quantity of coal affects the carbon foot-print and would have adverse bearing on environment.

vii. Operational efficiency drop in ACC will result in lesser output of power than WCC which in turn would impact the operational efficiency of other production facilities like DRI, Pellet, SMS & Rolling Mill etc dependent on captive generation of power.

15.14.7 Further, PP has obtained reports of expert agencies namely M/s Siemens Ltd. and M/s AKB Power Consultant Pvt. Ltd. who have the following views:

Agency	Summary of Report
M/s Siemens Ltd.	• Steam turbines (i.e. STG sets) as an equipment are designed to operate between specified inlet and outlet pressure & temperature regimes. Turbines designed for water cooled condenser operate at defined vacuum parameters. If it is required to operate with Air-cooled condenser then practical achievable vacuum shall deteriorate, for which existing steam turbine is not designed. • Performance of the STGs depends on the pressure drop (energy drop or enthalpy drop) available across the steam turbine and its optimization to convert the available thermal energy to mechanical energy of rotation. With reduced drop available with Air-cooled condenser, this performance also gets affected which would result in the higher steam consumption or lower generation due to the change in operating parameters. • The burden of downtime and physical adjustments within pre-existing boundary conditions would pose greater challenge. Also this would cause lower performance and poor conversion of heat energy to useful energy and thus would be inferior in terms of energy efficiency as well as economic perspective.
M/s AKB Power Consultant Pvt. Ltd.	i) Following additional space will be required for installing ACC for existing 2 x 12MW and 1 x 18MW TG units: • For each of 2 x 12MW Turbine additional layout space for ACC :: 37M x 16M • For1 x 18MW Turbine additional layout space for ACC :: 40 X 18M With the present space availability same is not feasible since in Plant Water reservoir is located very near to the TG building. Moreover, each ACC has to be installed adjacent to relevant TG location to avoid system pressure and temperature loss due to long ducting resulting in unwanted drop in generation which will not be acceptable. ii) If existing WCCs are replaced by ACCs there will be more aux. Energy consumption resulting in lower net energy availability against existing electrical load requirements of the Steel plant which will culminate to production loss of the plant.

15.1.16 The proposal was initially considered during the 8th meeting of the EAC for Industry-I sector held on 23-24th June, 2022 wherein the proposal was recommended for amendment in Environment Clearance as per the deliberation below:

Written Submission by PP (EAC during 23-24th June, 2022)

15.14.8 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 24.06.2022 submitted the following information:

1. Existing lay-out and plant facilities already established thereon cannot accommodate a huge bulky Air Cooled Condenser for the STG of CPP (72.5 MW) which requires about 18200 SqM. (4.5 Acres) additional space.
2. Since the adjoining area at North & East boundary of CPP Division is under dense Reserve Forest, there is no possibility for acquiring additional land of 18200 SqM. in alignment with the pre-existing CPP & TG installation area.
3. Information available in public domain at the web-site of Central Ground Water Authority (CGWA), Govt. of India shows that Raigarh area as on date is under "SAFE ZONE" so far the present ground water potentiality is concerned.
4. Plant's nearness to Hirakud Dam Back Water Catchment area (12/13 kms) is an added locational advantage for natural recharge of Ground Water source.
5. Besides, the artificial ground water recharge structures such as Rain Water Harvesting Pits and Rain Water Harvesting Ponds within our factory premise, MSP's involvement in 5 surrounding villages namely Jamgaon, Manuapali, Saraipali, Kukurdha, Kolaibahal having large patches of public wet land / water bodies altogether measuring more or less 110 acres, by desilting & deepening of the same in 7/8 years interval so as to create extra pondage and prevent them from drying up.
6. The existing CPP project of MSP is recommended by EAC based on assured surface water source from nearby Kur Nala by creation of in-stream storage structure by MSP. Production capacity increase of Sponge Iron from 300000 TPA to 375000 TPA (25%) based on process upgradation and change in raw material mix as per EIA Notification, 2006, 7(ii) in the same machinery without any increase in pollution load, as approved in the last EC dated 26.12.2019, does not cause any increase in CPP capacity or change in its operation process.
7. Existing turbine and its cooling system is designed based of Water Condensation system. Switching over to Air Cooled system will render the existing TG redundant which has an operational life of 20 years further.
8. Air Cooled Condenser having low thermal conductivity, its performance degrades under high ambient temperature and in windy condition thereby causing loss of performance efficiency by about 3% whereas Water Cooled Condenser ensures consistent efficiency for high rate of heat transfer, which is demanded operationally.
9. In addition to reduced efficiency of about 3%, Air Cooled Condenser consumes excess auxiliary power than Water Cooled Condenser for rendering equal output.
10. Low operational efficiency by 3% and extra auxiliary power consumption of 1.3% in Air Cooled Condenser together will result in higher requirement of power for about 70 MW

(50 MW + 20 MW) per day. For additional generation of power to make up the shortfall quantum of 70 MW power coal consumption will increase by 80-82 MT per day than the EC approved coal quantity. In addition, extra coal consumption will also enhance the carbon foot print proportionately and will contribute for pollution greater than permissible level.

11. Installation of Air Cooled Condenser with new TG at new site & land will otherwise involve an additional project cost of about Rs.70.0 Cr apart from dismantling of the existing installations mechanical & civil etc.

Deliberation by the Committee (EAC during 23-24th June, 2022)

15.14.9 The Committee noted the following:

i. M/s. MSP Steel and Power Limited was initially granted environmental Clearance by MoEF&CC vide letter No. J-11011/267/2007-IA II (I) dated 02/04/2009 for capacity expansion of Billet production from 95,000 to 695,000 TPA and Captive Power Plant from 16 MW to 52 MW. Subsequently, amendment to the environmental Clearance was issued on 9/9/2010 for change in the capacity of Pellet plant from 0.6 MTPA to 0.9 MTPA and Captive Power Plant from 20 MW to 44 MW (AFBC Boiler). Thereafter, another amendment to the environmental Clearance was issued on 23/08/2012 for change in configuration of Steel Melting Shop within permitted production capacity of 672,172 TPA Billets and inclusion of 4.5 MW biomass based power plant. Thereafter, M/s. MSP Steel and Power Limited obtained EC under para 7(ii) of EIA Notification, 2006 vide letter dated 26.12.2019 for expansion of Sponge Iron Plant production from 3,00,000 TPA to 3,75,000 TPA through process optimization.

ii. The instant proposal is for seeking amendment in EC dated 26.12.2019 with respect to waiver of additional condition no. (ii) at para 17 pertaining to usage of air cooled condenser in power plant as detailed in para 8.5.4 above.

iii. The EAC noted that PP has obtained reports of expert agencies namely M/s Siemens Ltd. and M/s AKB Power Consultant Pvt. Ltd. considering the effects of operation with Air-cooled condenser for the existing STGs operating with Water-cooled condenser.

iv. The EAC also noted that MoEF&CC (Monitoring Cell of IA Division) had issued a letter to M/s. MSP Steel and Power Limited on 30th March, 2022 pertaining to non-compliances observed with respect to the afore-said project and directed PP to submit the (i) clarification for non-compliance observed during the site visit of IRO, MoEF&CC, (ii) Action Taken Report (ATR) and (iii) Action plan with respect to the above non-complied conditions. In this regard, M/s. MSP Steel and Power Limited initially vide letter dated 28.04.2022 requested MoEF&CC for extension of time upto 10.05.2022 for submission of compliance report. Thereafter, the project proponent, vide letter dated 10.05.2022, submitted the representation made with regard to the actions being taken so far and time bound action plan to accomplish the unfulfilled part of EC conditions as enumerated in the table below:

NON-COMPLIANCE OBSERVED BY MOEF&CC	ACTION TAKEN PLAN BY PP VIDE LETTER DATED 10.05.2022

NON-COMPLIANCE OBSERVED BY MOEF&CC	ACTION TAKEN PLAN BY PP VIDE LETTER DATED 10.05.2022
A (i) EC dated 02.04.2009: **(Specific Condition vi)** Control measures has not been observed for fugitive emissions near coal washery, pellet plant and near rolling mill area. Permanent water sprinkling system has not been installed in high dust areas and housekeeping inside the plant has not been found satisfactory.	As a measures for control of fugitive emissions **rotative water sprinklers are installed in 10-12 mtrs gap permanently since the year 2004-05** along the internal roads connecting all facilities / services, dusty material handling areas within the plan premises. No. of sprinklers have increased with expansion of activity area. Areas not serviceable by sprinkler are facilitated by dedicated mobile Water Tanks equipped with water spraying mechanism for suppression of fugitive dust. **Sprinklers in Coal Washery** area located at one end of North-east boundary were not operational on the day of inspection because of shut-down of Coal Washery. In fact, does not operate over 90% of a year. Sprinklers in washery area are put into operation when the washery is made put into operational. Use of water **sprinkler in Rolling Mill** stock yard area is not operationally feasible as there is a need to keep the TMT bars and other finished steel structural products away from water to avoid oxidation / corrosional effect on them. But, for suppression of dust, along internal road having movement of trucks / material handling machineries in available open areas are done by mobile water spray system. Covered area of hot rolling mill does not require any use of sprinklers. It is true that about 49 nos. water **sprinklers in Pellet plant** out of which 30 nos. Sprinklers installed along the internal road of about 300 mtrs were not in operation when IRO/ Raipur was on that spot. Due to some electrical fault the pressure pump connected to those sprinklers was not in operation. However, operation of those sprinklers could be restored within an hour time with the operation of water pump resumed by power connectivity from alternative source. Photographs of the sprinklers with zone wise details & period installed covering all of in zones and movement/ activity area zones are submitted by the project proponent.
A(ii) EC dated 02.04.2009: **(Specific Condition xvi)** Proper utilization/ management of fly ash has not been followed by PP as per Fly Ash Notification, 1999 as amendment in 2003.	Regarding management/ utilization of fly ash and other mixed ash / dust, PP beg to reiterate what have submitted to the State Board (CECB) and in PP's representation to IRO/ Raipur (in para 4) vide letter dated 17.11.2021 and further quantity wise utilization ash for last 10 years reported in PP's letter to the IRO /Raipur dated 30.11.2021 as sought for. Copies of letter dated 17th Nov' & 30th Nov,2021 are submitted. **Road/ Land Development & Brick Making**: However, it is further submitted that fly ash generated in 44 MW (34+10) coal base CPP is fully utilized as per the MoEF&CC norms / guidelines for road construction, development of land covered under project, in the new industrial projects that came up in periphery as well as for brick making done in-house and to the brick units linked to plant for fly ash.

NON-COMPLIANCE OBSERVED BY MOEF&CC	ACTION TAKEN PLAN BY PP VIDE LETTER DATED 10.05.2022
	SECL Coal Mines Void Filling: MSPSPL has also duly applied the South Eastern Coalfields Ltd., for supply of fly ash for filling of the mines void in their closed coal mines in Raigarh area as permissible under the notification of MoEF&CC under intimation to the Chhattisgarh Environment Conservation Board seeking necessary recommendation. Vide dated 19.03.2020, Member Secretary, CECB, Govt. Of CG has also advised the SECL authority to allow the power producing plants in Raigarh to supply fly ash for back filling of the mine/ mines void. **Closure Plan of Two Ash Mounds**: Residual of composite ash & dust comprising of bottom ash, char dust, granulated slag etc after being used for development of project area and village road construction etc. were shifted to a company owned land located at two sites at plant proximity. Quantity of such ash dusts of 10 yrs are stated in letter dated 30.12.2021. Such ash & dusts are dumped in a scientific manner involving water spraying, sand layering, by forming benches for safe disposal of dusts with proper compaction. As on date both the ash dumps/ mounds equipped with water spray system, stabilised in a scientific and eco-friendly manner and closed by geo-carpeting of the same and plantation of local species on them. Thus both the mounds are settled and stabilised. There is no incidence of any collapse or adverse impact on environment so far. No public complain is received as yet except a couple of person whose intent of lodging complaint just before the upcoming public hearing for proposed expansion was to explore the possibility of extortion from the management. However, for better and productive use of said ash mounds PP has planned to put up solar power project of 2.0 MW (1.5 MW + 0.5 MW) on the flat top surface of 2 mounds and development of horticulture and plantations on the remaining part. For safeguarding the toe part of the mound, concrete wall construction is going on which will be completed within June'2023 considering the rainy period. Ash mound closure activities, as proposed by MSPSPL are being carried out at site. Photographs of two mound sites are submitted. **NEW FLY ASH BASE VALUE ADDED PRODUCTS – A SUSTAINABLE MEASURES:** **(i) Gypsum Composite**: As a sustainable measure, in addition to brick making and mines void filling, MSPSPL has initiated the process of exploring the possibility of further value addition of Fly Ash for developing of a new product namely **Fly Ash-Gypsum Composite** usable as plastering material for interior application as a substitute of cement at much lower cost.

NON-COMPLIANCE OBSERVED BY MOEF&CC	ACTION TAKEN PLAN BY PP VIDE LETTER DATED 10.05.2022
	For the above purpose MSPSPL has entered into an Agreement with Council of Scientific and Industrial Research (CSIR) a laboratory under Central Building Research Institute GoI, (CBRI) on 15th April'22 and under PP's sponsorship for development said Fly Ash – Gypsum Composite Product. Copy of the letter of confirmation dated 26.04.2022 received from of CBRI to provide Fly-ash utilization know-how to MSPSPL is submitted. **(Acceptance letter of CBRI, Roorkee).** **(ii) Geo-polymer Concrete Product:** In addition, MSPSPL is in the process of procuring know-how from CBRI for production of Geo-Polymer Concrete product from Fly Ash. Technical write-up on the process of manufacturing Geo-polymer Concrete Product by use of Fly Ash is submitted. **(Technical write up & offer of CBRI-Roorkee)** In due consideration of above facts and initiatives, for obtaining Fly-ash base value added products other than brick/ paving block, PP requests to implement the closure plan of existing two old stabilized mounds by Solar project & plantation as being undertaken by PP.
A(iii) EC dated 02.04.2009: **(Specific Condition xvii)** PP has not submitted the plant lay out plan with earmarking the plantation done in the 33% of the area as per stipulated condition.	Current Layout plan showing the standing green belt is also furnished **(Green belt in plant lay out) & (Plantation plan).**
B (iv) EC dated 09.09.2010: **(Addl. Specific Condition vi)** **and** **C (v) EC dated 26.12.2019: (Addl. Specific Condition** **Dated 26.12.2019)** **Air- Cooled Condensers** and closed circuit cooling system has not been found.	Under clause 4 of the EC dated 09.09.2010 issued by the Ministry in respect of expansion project of Steel & CPP, PP is directed to explore the possibility of Air-Cooled Condenser (ACC) with close loop cooling system while approving the Water-Cooled Condenser (WCC) system. Considering the advantage of Water-Cooled Condenser over Air-Cooled Condenser due to the technical, operational, environmental factors and other site conditions as enumerated below. CPP is continuing on Water-Cooled Condenser system with closed circuit water loop which has got operational life of 10 to 12 year further. **FACTORS CONSIDERED FOR WCC ARE**: i) Usually Air Cooled Condenser (ACC) is recommended in a water scarcity zone declared by the Central Ground Water Authority, GoI. Whereas plant location in Raigarh does not fall under Water Scarcity zone. ii) MSPSPL's operation is linked to 2 MCM Surface water sanctioned by WRD, CG Govt. Vide their letter no. 3330/273/WRD, CG Govt. dated 06.04.2013, which includes the make-up water requirement of

NON-COMPLIANCE OBSERVED BY MOEF&CC	ACTION TAKEN PLAN BY PP VIDE LETTER DATED 10.05.2022
	Water Cooled system. The Company has been sourcing surface water by constructing in-stream storage infrastructure at Kurnala river for uninterrupted / unrestricted drawal of water. Photocopy of sanctioned letter & copy of Agreement signed with the CG Govt. is submitted. **(Approval 2 MCM) & (Agreement of 2 MCM).** iii) Existing Turbine and connected cooling system is designed as per Water Cooled Condensation system. Change of Cooling system Air Cooled Condenser (ACC) would involve substantial modification of systems and mechanism and replacement of high value capital goods having an operation life of more than 10 years further. iv) ACC require more space which is not available at the existing site. v) ACC, having low thermal conductivity, its performance degrades under high ambient temperatures and windy condition causing loss of performance efficiency by 3% approx whereas WCC ensures consistent efficiency for high rate of heat transfer, which is demanded operationally. vi) ACC operation consumes more Auxiliary power of about 1.3% the WCC capable of rendering equal output in addition to reduced efficiency of 3% approx. Excess consumption of power generated by greater quantity of coal affects the carbon foot-print and has a proportionate adverse bearing on environment. vii) Operational efficiency drop explained in clause IV & V above will result in letter net output of power in ACC than WCC which in turn would reducing impact the operational efficiency of other production facilities like DRI, Pellet, SMS & Rolling Mill etc dependent on captive generation of power. **EXPERT OPINION ON USE OF WCC ARE :** i) Technology Report of technology provider SIEMENS is submitted**.** ii) Opinion of CPP operation consultant M/s. AKB Power Ltd. dtd. and of M/s. Shaktipunj Engg. Pvt. Ltd. dated 06.05.2022 are submitted**.** iii) Further MSPSPL has engaged NIT, Raipur for their expert opinion on ACC over WCC at plant which will be furnished within June'22, who have already inspected CPP on 05.05.2022. Copy of assignment to NIT is submitted**.** **MSPSPL Representation to MoEF&CC dtd. 31.12.2019**: After the EAC meeting PP made a reasoned representation to the Ministry vide letter dated 31.12.2019 requesting to waive the condition of Air-Cooled Condenser considering the site conditions and technical hindrances. Copy of letter dated 31.12.2019 is submitted**.** **EC Amendment application:** Further, PP has submitted application in PARIVESH Portal in prescribed format for amendment of EC dated 10.05.2022 with a request to amend the additional condition of 17(ii) present EC dated 26.12.2019. Copy of EC amendment application in Form

NON-COMPLIANCE OBSERVED BY MOEF&CC	ACTION TAKEN PLAN BY PP VIDE LETTER DATED 10.05.2022
	– 4 including its acknowledgement issued by MoEF&CC is submitted**.**
EAC deliberated the issues and action plan.	

Recommendations of the Committee (EAC during 23-24th June, 2022)

15.14.10 After deliberations, the Committee **recommended** the proposal for amendment in Environment Clearance, as detailed in para 15.14.4 above. The EAC also recommended the following additional conditions:

i. Implementation of Action Plan as submitted by the PP vide letter dated 10.05.2022.
ii. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
iii. The total PM generated and the percentage of this captured by the pollution control equipment per annum must be reported regularly.
iv. All other terms and conditions stipulated in the environmental clearance accorded shall remain unchanged.

Observations of the Ministry

15.14.11 The Ministry made observations citing that the file be submitted with the action taken against the non-compliances reported by IRO, vide letter dt. 30.03.2022. No timeline has been indicated for compliance of conditions related to Fly Ash Management and development of green belt. The Division should also offer its comments on the environmental damage, if any, by allowing the continuation of existing Water Cooled Condenser (WCC) in place of the Air Cooled Condenser (ACC) specified in the earlier EC and its effect on EMP Cost.

15.14.12 Project Proponent vide letter dated 14.09.2022, submitted Action Taken Report against the non-compliance reported by IRO, MoEF&CC. Further, IRO, MoEF&CC, vide letter dated 23.08.2022, also submitted the point-wise updated compliances status.

Query-1. The file be submitted with the action taken against the non-compliances reported by IRO, vide letter dt. 30.03.2022. No timeline has been indicated for compliance of conditions related to Fly Ash Management and development of green belt.		
Non-Compliance as reported by IRO, Raipur vide letter dated 30.03.2022	**Compliance Report & document submitted by PF (MSPSPL) & observation reported by IRO, Raipur on 26.07.2022 & communicated by IRO to MoEF&CC/ HQ vide letter dt. 23.08.2022**	**Remarks**
Permanent Water Sprinkler	The extract of observation report of 26.07.2022 of IRO, Raipur as stated in his letter to MoEF&CC, dated 23.08.2022 is as below: "It has been observed that Permanent water sprinkling system has been installed in high dust areas like at coal washery, rolling mill, pellet plant and almost all the internal roads. Housekeeping was found satisfactory inside the roads and raw material yards. PA has been advised to regularly maintain the DRI. Coal washery area and Raw material yard for good housekeeping practices."	Complied by PP
Management of Fly Ash	The PP has stated that ATR on Fly Ash management and eco-friendly closure of Ash mounds with time line	Ash mound closure structure with time line

and Ash Mounds.	spelt out as June 23 was reported in detail in compliance letter dated 10.05.2022 submitted to MoEF&CC. Observation of 26.07.2022 on Fly Ash managements as has been reported by IRO, Raipur in its letter dated 23.08.2022, are as below: "It has been submitted that the Fly ash utilization report for period 0ct. 2021 to June, 2022, wherein PP claims that 100% of utilization in fly ash brick units. Construction of roads and in land fillings. The Comprehensive fly ash utilization details and approval from SPCB for filling the fly ash in low laying areas has been submitted. In addition to that a report has been submitted by this office vide letter No. 5-189/2009 (ENVJ/487 dated 19.01.2022, wherein it was reported that fly ash dumps were observed at villages at Manuapali and Balbhadrapur, and as per action plan submitted by the PP to his office on 17.11.2021 and 30.11.2021, PP has constructed the Concreted structure of garland drains all around the fly ash mounds with a provision of settling tanks. It has been observed that most of the civil construction work was completed and the remaining was found under construction. PA has been asked to submit the compliance of the same on quarterly basis to this office. In addition, that PA has been advised to expedite the matter with Member Secretary, CECB for mine void filling from SECL mines for fly ash utilization. As committed by the PP and action plan submitted by the PP vide letter no. dated 17.11.2021, 30.11.2021 and 30.12.2021 the implementation status of the action plan shall be submitted to this office on quarterly basis."	(bar- graph) was furnished to IRO vide letter dated 10.05.2022. Ash mound Closure plan comprises of Garland drain, Toe wall, settling pond plantation & solar panels on its top.

Query-2. The Division should also offer its comments on the environmental damage, if any, by allowing the continuation of existing Water Cooled Condenser (WCC) in place of the Air Cooled Condenser (ACC) specified in the earlier EC and its effect on EMP Cost.

**

Views of M/s Siemens Ltd.:

- Steam turbines (i.e. STG sets) as an equipment are designed to operate between specified inlet and outlet pressure & temperature regimes. Turbines designed for water cooled condenser operate at defined vacuum parameters. If it is required to operate with Air-cooled condenser then practical achievable vacuum shall deteriorate, for which existing steam turbine is not designed.
- Performance of the STGs depends on the pressure drop (energy drop or enthalpy drop) available across the steam turbine and its optimization to convert the available thermal energy to mechanical energy of rotation. With reduced drop available with Air-cooled condenser, this performance also gets affected which would result in the higher steam consumption or lower generation due to the change in operating parameters.
- The burden of downtime and physical adjustments within pre-existing boundary conditions would pose greater challenge. Also this would cause lower performance and poor conversion of heat energy to useful energy and thus would be inferior in terms of energy efficiency as well as economic perspective

Views of M/s AKB Power Consultant Pvt. Ltd.:

i. Following additional space will be required for installing ACC for existing 2 x 12MW and 1 x 18MW TG units:
   - For each of 2 x 12MW Turbine additional layout space for ACC :: 37M x 16M
   - For1 x 18MW Turbine additional layout space for ACC :: 40 X 18M

With the present space availability same is not feasible since in Plant Water reservoir is located very near to

the TG building. Moreover, each ACC has to be installed adjacent to relevant TG location to avoid system pressure and temperature loss due to long ducting resulting in unwanted drop in generation which will not be acceptable.

ii. If the existing WCCs are replaced by ACCs there will be more aux. Energy consumption resulting in lower net energy availability against existing electrical load requirements of the Steel plant which will culminate to production loss of the plant

15.14.13 The Ministry further advised to technically examine the reply of PP dated 14.09.2022 by EAC. Based on the same, the proposal was re-considered during the 15th meeting of the EAC for Industry-I sector held on 17-18th October, 2022. The deliberations and recommendations of the EAC are as follows:

Written representations:

15.14.14 During the meeting, based on the deliberations made by the EAC, the project proponent vide email dated 25.10.2022 has submitted following information in the form of affidavit in an India non-judicial stamp certificate vide AM 603631 dated 25.10.2022:

The PP furnished the points of non-compliance observed and reported by the IRO, Raipur, and corresponding compliances made upto 15th October, 2022 along with the targeted date of completion of outstanding work in the table hereunder for information and record:

<table>
<tr><th>Non-compliance observed by IRO/Raipur & reported</th><th>Details of non-compliance reported by IRO/ Raipur vide letter dtd. 30.03.22 & 21.09.2022</th><th>Compliance status made as per ATR (upto 15.10.2022)</th><th>Completion dates of work as per ATR for 100% compliance</th></tr>
<tr><td>Permanent Water Sprinkler in high dust area</td><td>Control measures has not been observed for fugitive emission near Coal washery, Pellet Plant and near Rolling Mill area. In report dated 26.07.2022, IRO suggested to install some more Sprinklers.</td><td>Permanent Sprinklers existed in entire plant area: 463 before IRO’s visit.
In Rolling Mill – 32 Nos.
In Pellet Plant – 50 Nos.
In Coal Washery – 36 Nos.
Additional installation of new Sprinklers done by 12th October 2022 – 20 Nos.</td><td>20 Nos. Sprinklers installed by 12th October, 2022.</td></tr>
<tr><td>Management of Ash Two Mounds / Fly Ash</td><td>Ash Mounds (2 locations) were not damaged / closed following eco-friendly norms</td><td>
<table>
<tr><th>Closure Action</th><th>Total length requirement</th><th>Work Done</th><th>Work to be done</th></tr>
<tr><td>Toe wall garland drain</td><td>2760 mtrs</td><td>925 mts.</td><td>1835 mts</td></tr>
<tr><td>Plantation of Bushes / Trees</td><td>21200</td><td>2200 (surviving)</td><td>19000</td></tr>
<tr><td>Solar Plant</td><td>1.5 + 0.5 = 2.0 MW</td><td colspan="2">Consultant engaged & site Survey under process</td></tr>
</table>
</td><td>Toe wall & Drain – March 2023
Solar Plantation Structure erection – May 2023
Solar Panel Installation – June 2023
Settling Pond - Completed</td></tr>
</table>

<table>
<tr><th>Non-compliance observed by IRO/Raipur & reported</th><th>Details of non-compliance reported by IRO/ Raipur vide letter dtd. 30.03.22 & 21.09.2022</th><th>Compliance status made as per ATR (upto 15.10.2022)</th><th>Completion dates of work as per ATR for 100% compliance</th></tr>
<tr><td>Green Belt Development</td><td>As per EEC dt. 26.12.2019, there should be planted 50,000 saplings in 5 years in and around the plant site</td><td>41.60 Acres is earmarked for plantation within 126.0 Acres of total project area approved under EC
<table>
<tr><th>Plantation Status</th><th>Sapling planted</th><th>To be Done</th></tr>
<tr><td>Within project area</td><td>28,000 (About 13600 plants damaged for fire in Coal stock yard during covid years)</td><td>13,600</td></tr>
<tr><td>In Nearby village</td><td>23,000</td><td>16,000</td></tr>
<tr><td>In Ash Mounds</td><td>2,200</td><td>19,000</td></tr>
<tr><td>Total</td><td>53,200</td><td>48,600</td></tr>
</table></td><td>Plantation to be made:

Upto March, 2023: 13,600
In 2023-24: 20,000
In 2024-25: 15,000

Total – 48,600</td></tr>
</table>

Deliberation by the Committee

15.14.15 The Committee noted the following:

i. M/s. MSP Steel and Power Limited was initially granted environmental Clearance by MoEF&CC vide letter No. J-11011/267/2007-IA II (I) dated 02/04/2009 for capacity expansion of Billet production from 95,000 to 695,000 TPA and Captive Power Plant from 16 MW to 52 MW. Subsequently, amendment to the environmental Clearance was issued on 9/9/2010 for change in the capacity of Pellet plant from 0.6 MTPA to 0.9 MTPA and Captive Power Plant from 20 MW to 44 MW (AFBC Boiler). Thereafter, another amendment to the environmental Clearance was issued on 23/08/2012 for change in configuration of Steel Melting Shop within permitted production capacity of 672,172 TPA Billets and inclusion of 4.5 MW biomass based power plant. Thereafter, M/s. MSP Steel and Power Limited obtained EC under para 7(ii) of EIA Notification, 2006 vide letter dated 26.12.2019 for expansion of Sponge Iron Plant production from 3,00,000 TPA to 3,75,000 TPA through process optimization.

ii. The instant proposal is for seeking amendment in EC dated 26.12.2019 with respect to waiver of additional condition no. (ii) at para 17 pertaining to usage of air cooled condenser in power plant as detailed in para 15.14.4 above.

iii. The EAC noted that PP has obtained reports of expert agencies namely M/s Siemens Ltd. and M/s AKB Power Consultant Pvt. Ltd. considering the effects of operation with Air-cooled condenser for the existing STGs operating with Water-cooled condenser.

iv. The EAC also noted that MoEF&CC (Monitoring Cell of IA Division) had issued a letter to M/s. MSP Steel and Power Limited on 30th March, 2022 pertaining to non-compliances observed with respect to the afore-said project and directed PP to submit the (i) clarification for non-compliance observed during the site visit of IRO, MoEF&CC, (ii) Action Taken Report (ATR) and (iii) Action plan with respect to the above non-complied

conditions. In this regard, M/s. MSP Steel and Power Limited initially vide letter dated 28.04.2022 requested MoEF&CC for extension of time upto 10.05.2022 for submission of compliance report. Thereafter, the project proponent, vide letter dated 10.05.2022, submitted the representation made with regard to the actions being taken so far and time bound action plan to accomplish the unfulfilled part of EC conditions as enumerated in the table below:

NON-COMPLIANCE OBSERVED BY MOEF&CC	ACTION TAKEN BY PP VIDE LETTER DATED 10.05.2022
A (i) EC dated 02.04.2009: <u>(Specific Condition vi)</u> Control measures has not been observed for fugitive emissions near coal washery, pellet plant and near rolling mill area. Permanent water sprinkling system has not been installed in high dust areas and housekeeping inside the plant has not been found satisfactory.	As a measures for control of fugitive emissions **rotative water sprinklers are installed in 10-12 mtrs gap permanently since the year 2004-05** along the internal roads connecting all facilities / services, dusty material handling areas within the plan premises. No. of sprinklers have increased with expansion of activity area. Areas not serviceable by sprinkler are facilitated by dedicated mobile Water Tanks equipped with water spraying mechanism for suppression of fugitive dust. **Sprinklers in Coal Washery** area located at one end of North-east boundary were not operational on the day of inspection because of shut-down of Coal Washery. In fact, does not operate over 90% of a year. Sprinklers in washery area are put into operation when the washery is made put into operational. Use of water **sprinkler in Rolling Mill** stock yard area is not operationally feasible as there is a need to keep the TMT bars and other finished steel structural products away from water to avoid oxidation / corrosional effect on them. But, for suppression of dust, along internal road having movement of trucks / material handling machineries in available open areas are done by mobile water spray system. Covered area of hot rolling mill does not require any use of sprinklers. It is true that about 49 nos. water **sprinklers in Pellet plant** out of which 30 nos. Sprinklers installed along the internal road of about 300 mtrs were not in operation when IRO/ Raipur was on that spot. Due to some electrical fault the pressure pump connected to those sprinklers was not in operation. However, operation of those sprinklers could be restored within an hour time with the operation of water pump resumed by power connectivity from alternative source. Photographs of the sprinklers with zone wise details & period installed covering all of in zones and movement/ activity area zones are submitted by the project proponent.
A(ii) EC dated 02.04.2009: <u>(Specific Condition xvi)</u> Proper utilization/ management of fly ash has not been followed by PP as per Fly Ash Notification, 1999 as	Regarding management/ utilization of fly ash and other mixed ash / dust, PP beg to reiterate what have submitted to the State Board (CECB) and in PP's representation to IRO/ Raipur (in para 4) vide letter dated 17.11.2021 and further quantity wise utilization ash for last 10 years reported in PP's letter to the IRO /Raipur dated 30.11.2021 as sought for. Copies of letter dated 17th Nov' & 30th Nov,2021 are submitted.

NON-COMPLIANCE OBSERVED BY MOEF&CC	ACTION TAKEN BY PP VIDE LETTER DATED 10.05.2022
amendment in 2003.	**Road/ Land Development & Brick Making**: However, it is further submitted that fly ash generated in 44 MW (34+10) coal base CPP is fully utilized as per the MoEF&CC norms / guidelines for road construction, development of land covered under project, in the new industrial projects that came up in periphery as well as for brick making done in-house and to the brick units linked to plant for fly ash. **SECL Coal Mines Void Filling**: MSPSPL has also duly applied the South Eastern Coalfields Ltd., for supply of fly ash for filling of the mines void in their closed coal mines in Raigarh area as permissible under the notification of MoEF&CC under intimation to the Chhattisgarh Environment Conservation Board seeking necessary recommendation. Vide dated 19.03.2020, Member Secretary, CECB, Govt. Of CG has also advised the SECL authority to allow the power producing plants in Raigarh to supply fly ash for back filling of the mine/ mines void. **Closure Plan of Two Ash Mounds**: Residual of composite ash & dust comprising of bottom ash, char dust, granulated slag etc after being used for development of project area and village road construction etc. were shifted to a company owned land located at two sites at plant proximity. Quantity of such ash dusts of 10 yrs are stated in letter dated 30.12.2021. Such ash & dusts are dumped in a scientific manner involving water spraying, sand layering, by forming benches for safe disposal of dusts with proper compaction. As on date both the ash dumps/ mounds equipped with water spray system, stabilised in a scientific and eco-friendly manner and closed by geo-carpeting of the same and plantation of local species on them. Thus both the mounds are settled and stabilised. There is no incidence of any collapse or adverse impact on environment so far. No public complain is received as yet except a couple of person whose intent of lodging complaint just before the upcoming public hearing for proposed expansion was to explore the possibility of extortion from the management. However, for better and productive use of said ash mounds PP has planned to put up solar power project of 2.0 MW (1.5 MW + 0.5 MW) on the flat top surface of 2 mounds and development of horticulture and plantations on the remaining part. For safeguarding the toe part of the mound, concrete wall construction is going on which will be completed within June'2023 considering the rainy period. Ash mound closure activities, as proposed by MSPSPL are being carried out at site. Photographs of two mound sites are submitted. **NEW FLY ASH BASE VALUE ADDED PRODUCTS – A SUSTAINABLE MEASURES:** **(iii) Gypsum Composite**: As a sustainable measure, in addition to brick

NON-COMPLIANCE OBSERVED BY MOEF&CC	ACTION TAKEN BY PP VIDE LETTER DATED 10.05.2022
	making and mines void filling, MSPSPL has initiated the process of exploring the possibility of further value addition of Fly Ash for developing of a new product namely **Fly Ash-Gypsum Composite** usable as plastering material for interior application as a substitute of cement at much lower cost. For the above purpose MSPSPL has entered into an Agreement with Council of Scientific and Industrial Research (CSIR) a laboratory under Central Building Research Institute GoI, (CBRI) on 15th April'22 and under PP's sponsorship for development said Fly Ash – Gypsum Composite Product. Copy of the letter of confirmation dated 26.04.2022 received from of CBRI to provide Fly-ash utilization know-how to MSPSPL is submitted. **(Acceptance letter of CBRI, Roorkee).** **(iv) Geo-polymer Concrete Product:** In addition, MSPSPL is in the process of procuring know-how from CBRI for production of Geo-Polymer Concrete product from Fly Ash. Technical write-up on the process of manufacturing Geo-polymer Concrete Product by use of Fly Ash is submitted. **(Technical write up & offer of CBRI-Roorkee)** In due consideration of above facts and initiatives, for obtaining Fly-ash base value added products other than brick/ paving block, PP requests to implement the closure plan of existing two old stabilized mounds by Solar project & plantation as being undertaken by PP.
A(iii) EC dated 02.04.2009: <u>(Specific Condition xvii)</u> PP has not submitted the plant lay out plan with earmarking the plantation done in the 33% of the area as per stipulated condition.	Current Layout plan showing the standing green belt is also furnished **(Green belt in plant lay out) & (Plantation plan).**
B (iv) EC dated 09.09.2010: <u>(Addl. Specific Condition vi)</u> **and** **C (v) EC dated 26.12.2019: (Addl. Specific Condition <u>Dated 26.12.2019)</u>** **Air- Cooled Condensers** and closed circuit cooling system has not been found.	Under clause 4 of the EC dated 09.09.2010 issued by the Ministry in respect of expansion project of Steel & CPP, PP is directed to explore the possibility of Air-Cooled Condenser (ACC) with close loop cooling system while approving the Water-Cooled Condenser (WCC) system. Considering the advantage of Water-Cooled Condenser over Air-Cooled Condenser due to the technical, operational, environmental factors and other site conditions as enumerated below. CPP is continuing on Water-Cooled Condenser system with closed circuit water loop which has got operational life of 10 to 12 year further. **FACTORS CONSIDERED FOR WCC ARE**: viii) Usually Air Cooled Condenser (ACC) is recommended in a water scarcity zone declared by the Central Ground Water Authority, GoI.

NON-COMPLIANCE OBSERVED BY MOEF&CC	ACTION TAKEN BY PP VIDE LETTER DATED 10.05.2022
	Whereas plant location in Raigarh does not fall under Water Scarcity zone. ix) MSPSPL's operation is linked to 2 MCM Surface water sanctioned by WRD, CG Govt. Vide their letter no. 3330/273/WRD, CG Govt. dated 06.04.2013, which includes the make-up water requirement of Water Cooled system. The Company has been sourcing surface water by constructing in-stream storage infrastructure at Kurnala river for uninterrupted / unrestricted drawal of water. Photocopy of sanctioned letter & copy of Agreement signed with the CG Govt. is submitted. **(Approval 2 MCM) & (Agreement of 2 MCM).** x) Existing Turbine and connected cooling system is designed as per Water Cooled Condensation system. Change of Cooling system Air Cooled Condenser (ACC) would involve substantial modification of systems and mechanism and replacement of high value capital goods having an operation life of more than 10 years further. xi) ACC require more space which is not available at the existing site. xii) ACC, having low thermal conductivity, its performance degrades under high ambient temperatures and windy condition causing loss of performance efficiency by 3% approx whereas WCC ensures consistent efficiency for high rate of heat transfer, which is demanded operationally. xiii) ACC operation consumes more Auxiliary power of about 1.3% the WCC capable of rendering equal output in addition to reduced efficiency of 3% approx. Excess consumption of power generated by greater quantity of coal affects the carbon foot-print and has a proportionate adverse bearing on environment. xiv) Operational efficiency drop explained in clause IV & V above will result in letter net output of power in ACC than WCC which in turn would reducing impact the operational efficiency of other production facilities like DRI, Pellet, SMS & Rolling Mill etc dependent on captive generation of power. **EXPERT OPINION ON USE OF WCC ARE :** iv) Technology Report of technology provider SIEMENS is submitted**.** v) Opinion of CPP operation consultant M/s. AKB Power Ltd. dtd. and of M/s. Shaktipunj Engg. Pvt. Ltd. dated 06.05.2022 are submitted**.** vi) Further MSPSPL has engaged NIT, Raipur for their expert opinion on ACC over WCC at plant which will be furnished within June'22, who have already inspected CPP on 05.05.2022. Copy of assignment to NIT is submitted**.** **MSPSPL Representation to MoEF&CC dtd. 31.12.2019**: After the EAC meeting PP made a reasoned representation to the Ministry vide letter dated 31.12.2019 requesting to waive the condition of Air-Cooled Condenser considering the site conditions and technical hindrances. Copy of letter dated 31.12.2019 is submitted**.**

NON-COMPLIANCE OBSERVED BY MOEF&CC	ACTION TAKEN BY PP VIDE LETTER DATED 10.05.2022
	EC Amendment application: Further, PP has submitted application in PARIVESH Portal in prescribed format for amendment of EC dated 10.05.2022 with a request to amend the additional condition of 17(ii) present EC dated 26.12.2019. Copy of EC amendment application in Form – 4 including its acknowledgement issued by MoEF&CC is submitted**.**
EAC deliberated the issues and action plan and found in order.	

v. The EAC deliberated on the points raised by the Ministry and reply submitted by the PP vide letter dated 14.09.2022 (as detailed in para 15.14.12 above) and subsequent affidavit dated 25.10.2022 (as detailed in para 15.14.14 above) and noted that PP has furnished the corresponding compliances made upto 15th October, 2022 along with the targeted date of completion of outstanding work on the points of non-compliance observed and reported by the IRO, Raipur i.e. the issues related to control of fugitive emission, fly ash management and greenbelt development. The EAC deliberated on the same and found completion dates of work as per ATR for compliance is satisfactory.

Recommendations of the Committee

15.14.16 After deliberations, the Committee **recommended** the proposal for amendment in Environment Clearance, as detailed in para 15.14.4 above. The EAC also recommended the following additional conditions:

i. Strict compliance of all the conditions observed as non-complied as per the report of IRO, MoEFCC Raipur in accordance to the submitted action plan. PP shall comply with the targets and timelines as per letter dated 14.09.2022 and affidavit dated 25.10.2022 to address the issues related to control of fugitive emission, fly ash management and greenbelt development.
ii. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
iii. The total PM generated and the percentage of this captured by the pollution control equipment per annum must be reported regularly.
iv. All other terms and conditions stipulated in the environmental clearance accorded shall remain unchanged.

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	17/10/2022	18/10/2022
1.	Shri Rajive Kumar	Chairman	***Present***	***Present***
2.	Dr. Dipankar Shome	Vice Chairman	***Present***	***Present***
3.	Dr. S. Ranganathan	Member	***Present***	***Present***
4.	Dr. Ranjit Prasad	Member	***Present***	***Present***
5.	Dr. 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	***Present***	***Present***
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 E, MoEFCC	Member Secretary	***Present***	***Present***

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ANNEXURE-4

Approval of EAC Chairman

Email **Additional Director MoEFCC Dr R B LAL**

Re: Compiled Draft minutes of the 15th EAC Meeting held on October 17-18, 2022 for approval of Chairman

From :	chairman eac ind 1 <chairman.eac.ind.1@gmail.com>	Mon, Oct 31, 2022 08:25 PM
Subject :	Re: Compiled Draft minutes of the 15th EAC Meeting held on October 17-18, 2022 for approval of Chairman	
To :	Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>	
Cc :	rajivekumar1983@gmail.com, ranganathan metals <ranganathan.metals@gmail.com>, ranjitnitj@gmail.com, rajuevr60@gmail.com, sksinghdce@gmail.com, dshome61@gmail.com, tejaswini acf <tejaswini.acf@gmail.com>, sshemant 801 <sshemant_801@rediffmail.com>, NCCBM DIRECTOR GENERAL <dg@ncbindia.com>, Nazimuddin <nazim.cpcb@nic.in>, Raghavan S <raghuharihar@gov.in>, raghuharihar@yahoo.co.in, Sanjay Bist <sanjay.bist@imd.gov.in>, drjkpandey eac industry1 <drjkpandey.eac.industry1@gmail.com>	

Dear Dr. Lal,
The draft minutes are approved. Kindly do the needful.

Best wishes

Rajive Kumar
Chairman-EAC Industry-1

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