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

Summary record of the twenty fourth (24th) meeting of Re-Constituted Expert Appraisal Committee (REAC) held during 27-29th October, 2020 for environment appraisal of Industry-1 sector projects constituted under the provisions of Environment Impact Assessment (EIA) notification, 2006.

The twenty fourth meeting of the Expert Appraisal Committee (EAC) for Industry-1 Sector constituted as per the provisions of the EIA Notification, 2006 for Environment Appraisal of Industry-1 Sector Projects was held during **27-29th October, 2020** in the Ministry of Environment, Forest and Climate Change (MoEF&CC) through **video conferencing** in view of the ongoing Corona Virus Disease (Covid-19) issue. The list of EAC attendees is as follows.

S.No.	Name	Position	27/10/20	28/10/20	29/10/20
1.	Dr. Chhavi Nath Pandey	Chairman	Present	Present	Present
2.	Dr. Bipin Prakash Thapliyal, Director, CPPRI.	Member	Absent	Absent	Absent
3.	Dr. Siddharth Singh, Scientist 'E' IMD.	Member	Present	Present	Present
4.	Dr. Jagdish Kishwan	Member	Present	Present	Present
5.	Dr. G.V. Subramanyam	Member	Present	Present	Present
6.	Dr. Tejaswini AnanthKumar	Member	Present	Present	Present
7.	Shri. Ashok Upadhyaya	Member	Present	Present	Present
8.	Shri. Rajendra Prasad Sharma	Member	Present	Present	Present
9.	Dr. Sanjay Deshmukh	Member	Absent	Absent	Absent
10.	Prof. S.K. Singh	Member	Present	Present	Present
11.	Dr. R. Gopichandran	Member	Absent	Absent	Absent
12.	Shri Jagannadha Rao Avasarala	Member	Present	Present	Present
13.	Shri. J.S.Kamyotra	Member	Present	Present	Present
14.	Shri. A.K. Agrawal	Member Secretary	Present	Present	Present

After welcoming the Committee Members, discussion on each of the agenda items was taken up. The minutes of 23rd meeting held during 28-30th September, 2020 were confirmed by the EAC as already uploaded on PARIVESH.

27th October, 2020

24.1 Proposed Expansion of Integrated Cement Plant Clinker (2.00 MTPA to 5.00 MTPA), Cement (2.85 MTPA to 7.00 MTPA), WHRB (12 MW to 30 MW) and Installation of new 25 MW Captive Thermal Power Plant by **M/s. Udaipur Cement Works Limited** located at Shripati Nagar, village Dabok Tehsil Mavli, **District Udaipur, Rajasthan.** [Online Proposal No. IA/RJ/IND/6507/2007; File No. J11011/807/2007-IA.II (I)] **– Environment Clearance – regarding.**

24.1.1 M/s. Udaipur Cement Works Limited has made online application vide proposal no. IA/RJ/IND/6507/2007 dated 18/09/2020 along with copy of EIA/EMP report and Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(b) Cement plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent

24.1.2 The detail of the ToR accorded is furnished as below:

Date of application	Consideration	Details	Date of accord
24/12/2019	15th meeting held on 16-17th January, 2020	Terms of Reference	05/02/2020

24.1.3 The project of M/s. Udaipur Cement Works Limited (UCWL), Udaipur is located at Shripati Nagar, P.O. CFA 313022, village Dabok, Tehsil: Mavli, District: Udaipur, State-Rajasthan is for expansion of Integrated Cement Plant within the existing premises of UCWL; Clinker from 2.0 Million Tonnes Per Annum (MTPA) to 5.0 MTPA, Cement from 2.85 MMTPA to 7.0 MMTPA, Waste Heat Recovery Boiler Based Power Plant (WHRB) from 12.0 Mega Watt (MW) to 30.0 MW and Installation of a new Captive Thermal Power Plant (CTPP) of capacity 25 MW & Solar Power Plant from 7.6 MW/day to 15.2 MW/day & DG Set from 0.5 MW to 2.5 MW.

24.1.4 The existing project was accorded Environmental Clearance vide lr.no J-11011/807/2007-IA-II (I) dated 09.01.2008. It has been reported that the Consent to Operate for cement plant from the Rajasthan State Pollution Control Board obtained vide Lr. No F (CPM)/Udaipur (Girwa)/9(1)/2013-2014/5784-5786dated 11.03.2020, with validity till 30.11.2024 and CTO for 12.0 MW Waste Heat Recovery Plant vide letter no. F(CPM)/Udaipur (Girwa)/9(1)/2013-2014/10972-10974 dated 27.02.2017 with validity till 30.09. 2021.

24.1.5 The proposed capacity for different products for site area is as below:

S. No.	Product	Existing (MTPA)	Proposed Additional (MTPA)	Total After Expansion (MTPA)
1	Cement (Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC), Portland Slag Cement (PSC), Sulphate Resisting Portland Cement (SRPC) and Composite Cement)	2.85	4.15	7.0
2	Clinker	2.00	3.0	5.0
Power Generation (MW)				
3	CTPP	0	25	25
4	WHRB	12	18	30
5	Solar Power (MW/Day)	7.6	7.6	15.2
6	DG Set	0.5	2.0	2.5

24.1.6 Project Proponent (UCWL) has reported that they already have land of area 161.87 ha. and Expansion Project will be installed in the existing land of 161.87 ha. This is an industrial land. No forest land is involved. The entire land has already been acquired for the project. No river passes through the project area. No water body passes through the project area. Gadela river & Berach river (seasonal) is located at ~2.59 km (NE) & 5.66 km towards South and Katara Nadi -6.36 km towards WSW of the project site and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

24.1.7 The topography of the area is flat and reported to lie between 24°38'43.77" N to 24°39'40.69" N Latitude and 73°52'16.64"E to 73°52'50.07" E Longitude in Survey of India topo sheet No. 45 H/14, at an elevation of 540 AMSL. The ground water table reported to range between 10m to 20 m below the land surface during the pre-monsoon season and 5 m to 10 m below the land surface during the post-monsoon season. The project area falls in Mavli block which falls under over exploited category and stage of ground water development is 138.03 %.

24.1.8 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to corridor for Schedule-I fauna.

24.1.9 Cement manufacturing process is a dry based manufacturing utilizing the pre-calciner technology. The process of project showing the basic raw material used and the various processes involved to produce the final output are given below:

S. No.	Raw Material	Existing	Proposed	Total	Source	Mode of transport
		Consumption TPD				
1.	Limestone	10740	16968	27708	Captive Daroli Limestone Mine 1 & 2	Over Land Belt Conveyor (OLBC) (6 KM)/Road
2.	Additive (Red Ochre, Alumina Clay, China Clay, Copper/Zinc/Iron Slag, Pond Ash, Feldspar, Siliceous Sand/Stone Sand, Laterite, Iron Dust, Bentonite Clay etc.)	1010	2760	3770	Chittorgarh, Dariba, Rajsamand,Gandhinagar (Gujarat) etc.	120 – 250 KM by Road
3.	Gypsum (Mineral/Chemical etc.) (Anhydrous/Hydrated)	510	740	1250	Bikaner, Ahemdabad,Gandhinagar (Gujarat) etc.	250-550 km by Road
4.	Fly Ash (Dry/Wet)	1000	2786	3786	From proposed CTPP & nearby PPs (Rajasthan, Gujarat etc.)	250 - 280 km by Road
5.	Coal/Pet coke (Imported/Indigenous)/AFR/ MSW/RDF/Haz. Wastes/Biomass etc.	1067	1600	2667	Indigenous / Imported from local/open market	50 – 550 KM by Road/Rail
6.	Coal/AFR/Biomass/MSW for CTPP (Petcoke – Subject to future approval for CTPP)	-	500	500	Indigenous / Imported from local/open market	50-550 km by Road/Rail

The various process involved are raising, crushing, conveying, grinding, pyro-processing, fine grinding and packing.

24.1.10 The targeted production capacity after the expansion will be; Clinker from 2.0 Million Tonnes Per Annum (MTPA) to 5.0 MTPA, Cement from 2.85 MTPA to 7.0 MTPA, WHRB from 12.0 MW to 30.0 MW, installation of a new Captive Thermal Power Plant(CTPP) of 25.0 MW capacity & Solar Power Plant from 7.6 MW/day to 15.2 MW/day. The Limestone for the plant is being/will be catered from captive limestone mine (linkages Daroli-Limestone Mining-1 Project (ML-No.-02/88) & Daroli- Limestone Mining-2 Project (ML-No.-64/79)) through Over Land Belt Conveyor (OLBC) & Road.

24.1.11 Water Consumption for the proposed project will be 3280 KLD (Industrial +Township). Thus, total fresh water requirement after proposed expansion will be 6130 KLD (Industrial +Township), out of which 2525 KLD is being met from the groundwater and remaining requirement of 3605 KLD will be met from Rain Water Harvesting Storage Structures by creating new Rain Water Harvesting and augmenting of capacity of Rain Water Harvesting Ponds/Pits. The permission for drawl of groundwater is obtained from CGWA vide Lr. No. 21-4 (211)/WR/CGWA/ 2007-626 dated 22.04.2016 and the renewal of the same is under process.

24.1.12 The power requirement of the project after proposed expansion is estimated as 70.0 MW which will be sourced from Captive Thermal Power Plant (CTPP), Waste Heat Recovery Boiler (WHRB) based power plant, Solar Power Plant & Rajasthan State Electricity Board (RSEB). Udaipur Cement Works Limited also proposes Capacity expansion in WHRB based power plant (12 MW to 30 MW), Solar Power Plant (7.6 to 15.2 MW/Day), DG Sets (0.5 MW to 2.5 MW) and installation of a new CTPP (25 MW). DG Sets will be used as an Emergency Back-up only.

24.1.13 Baseline Environmental Studies:

Period	1st March 2019 to 31st May 2019
AAQ parameters at 11 locations	$PM_{2.5}$ = 22.3 to 50.9 µg/m^3 PM_{10}= 38.1 to 82.6 µg/m^3 SO_2= 6.0 to 14.0 µg/m^3 NOx = 6.0 to 29.7 µg/m^3
AAQ modelling	PM_{10} = 7.77 µg/m^3 SO_2 = 3.79 µg/m^3 NOx = 7.25 µg/m^3
Ground water quality at 11 locations	pH: 6.79 to 7.97, Total Hardness: 344 to 1160 mg/l, Chlorides: 51.98 to 749.77 mg/l, Fluoride: 0.41 to 1.57 mg/l. Heavy metals are within the limits.
Surface water quality at 1 locations	Maximum pH: 7.27; DO: 4.8 mg/l and BOD: 4.2 mg/l. COD 15 mg/l
Noise levels	50.8 to 67.2 dBA for Leq (day) and 41.8 to 62.3 dBA for Leq (night).

24.1.14 It has been reported that the expansion project will be executed in the existing plant premises & no additional land is required for the project. And thus no R&R is involved.

24.1.15 The details of existing and additional solid & hazardous waste generation have been shown in the table below. It has been envisaged that greenbelt has already been developed in an area of 55 ha i.e. 33.98 % of the total plant area. During expansion, additional greenbelt

will be developed in an area of 10 acres outside of the plant to attenuate the noise levels and trap the dust generated due to the project development activities. 33.98% of the total plant area (55 ha), is already developed under greenbelt & plantation:

Solid waste	**Existing**	**Proposed**	**After Expansion**	**Management**
Cement	--	--	--	No solid waste will be generated in cement manufacturing process. Dust collected from Air Pollution Control Equipment will be 100% recycled in the cement manufacturing
Ash from CTPP	-	Approx. 200-250 TPD	Approx. 200-250 TPD	Will be used in cement manufacturing in PPC
Sludge from STP	2-3 KG/Day	10-12 Kg/Day	12-15 Kg/Day	Used as manure for plantation
Used or spent oil	21.60 KL/A	Avg. 32.40KL/A	54 KL/A	Sales to CPCB/SPCB registered Recyclers and fired in pre-calciner.
Batteries	1 Ton/A	Avg. 2 Ton/A	Avg. 3 Ton/A	To be sold to CPCB/SPCB authorized vendors.
Note: Proposed qty. maybe varied after detailed engineering.				

24.1.16 The Public hearing of the project was held on 15/07/2020 at project site of UCWL falls under the chairmanship of Mr. O.P. Bunkar- Additional District Collector (Administration) Udaipur and Dr.B. R Pawar, Regional Officer, RSPCB, Udaipur, for expansion of Integrated Cement Plant within existing premises of UCWL; Clinker from 2.0 MTPA to 5.0 MTPA, Cement from 2.85 MTPA to 7.0 MTPA, Waste Heat Recovery Boiler Based Power Plant (WHRB) from 12.0 Mega Watt (MW) to 30.0 MW and Installation of a new Captive Thermal Power Plant (CTPP) of capacity 25 MW; & Solar Power Plant from 7.6 MW/day to 15.2 MW/day & DG set from 0.5 MW to 2.5 MW. The issues raised during public hearing are about employment and environmental pollution. An amount of Rs.100 lacs has been earmarked based on public hearing issues which is included in Rs 400 Lakhs as additionally earmarked by PP towards environmental and social commitments.

24.1.17 The capital cost of the proposed expansion project is about Rs. 1600 Crores. And capital cost for environmental protection measures is proposed as Rs. 18385 Lacs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 403 lacs/annum.

24.1.18 It is reported that the direct employment generation after proposed expansion will be 120 and apart from this indirect employment will also be generated.

24.1.19 The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

Sl. No.	Description of Item	Existing (Rs. In Lacs)		Proposed (Rs. In Lacs)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
1.	Air Pollution Control/ Noise	10741	375.9	18000	390
2.	Water Pollution Control	49	1.7	15	2.5
3.	Environmental Monitoring and Management	196	6.9	33.	7.5
4.	Green Belt Development	19	0.7	30	1.0
5.	Occupational Health	33	1.2	10	2.0
Total		**11038**	**386**	**18385**	**403**

24.1.20 About 55 ha i.e.33.98 % of the existing plant area (161.87 ha) has already been developed under greenbelt & plantation. An additional area (outside of plant) of 10 acres will be developed under greenbelt & plantation. A 100 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 10000 saplings will be planted and nurtured in 4.04. Hectares in next 5 years.

24.1.21 The proponent has mentioned that there is no court case or violation under EIA Notification, 2006 to the project or related activity.

24.1.22 Name of the EIA consultant: Enkay Enviro Services Pvt. Ltd. [S.No. 101, List of ACOs with their Certificate / Extension Letter no. Rev. 3, Oct. 14, 2020].

Certified report of Regional Office of the MoEF&CC

24.1.23 The Status of compliance of earlier EC was obtained from Regional Office, Lucknow vide letter no. IV/Env/R/TH-33/583/08/393 dated 14.11.2019, wherein it was observed to obtain permission and recommendation from State Forest Department regarding impact of the cement plant on the surrounding reserve forests. In this regard, PP responded by stating that requisite permission and recommendation from State Forest Department has been obtained on 02/08/2019.

Observations of the Committee

24.1.24 The Committee noted the following:

i. 2525 KLD water is abstracted from ground. NOC renewal for abstraction of ground water has not been obtained.
ii. TOR Point #9 has not been addressed in EIA. It is given in annexures.
iii. Dioxins/Furans emissions during usage of alternate fuels have not been monitored and reported for existing plant in the EIA report.
iv. There is no methodology given in EIA Report for collection of baseline data. Criteria for selection of sampling locations not defined.
v. Dust level at project site are higher indicating that fugitive emission controls are not effective.

vi. Hydrogeological status of the region has been described without any mention of status specific in the study area.
vii. Interpretation of baseline data has not been done.
viii. There is no distinction between primary and secondary data for EB and SE base line.
ix. Project specific HIRA has not been done. In DMP Chapter, Ammonia shall be used for NOx control and HW used as alternate fuels, have not been addressed at all.
x. Green belt development has been proposed in 55 ha. It should be 57.5 ha as 10 acre additional green belt was committed in ToR dated 5/02/2020.
xi. Action plan to address the issues raised during public consultation as per the MoEF&CC O.M. No. 22-65/2017-IA.III dated 30/09/2020 shall be submitted.
xii. EIA does not describe Administrative measures like vision, mission, policy SOP for addressing non-compliances and quantified EMPS with time frame.
xiii. Status of environment clearance for the limestone mines has not been furnished.

Recommendations of the Committee

24.1.25 In view of the above, the Committee, after deliberations, recommended to return the proposal in present form.

24.2 Modernization cum Expansion of MS Billets/Alloys Billets Production from 1,58,400 TPA to 7,28,400 TPA, TMT Bars production from 1,58,400 TPA to 7,28,400 TPA and Additional Unit for Production of Ferro Manganese 21500 TPA/ Silico Manganese 18000 TPA by **M/s. Metarolls Ispat Pvt. Ltd.** located at Gut No. 48, Daregaon village, Adjacent to MIDC Phase II, Taluka - Jalna, **District - Jalna, Maharashtra State.** [Online Proposal No. IA/MH/IND/178253/2018; File No. J-11011/292/2018-IA.II(I)] – **Environment Clearance – regarding.**

24.2.1 M/s Metarolls Ispat Pvt. Ltd has made online application vide proposal no. IA/MH/IND/134889/2018 dated 18/07/2020 along with Form 2 and other documents for seeking Environment Clearance (EC) for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

24.2.2 The proposal cited above was considering during 21st meeting of the Re-constituted EAC (Industry-I) held during 30th July – 1st August, 2020. The observations and recommendations the said meeting is reproduced as below:

Observations of the committee held during 30th July – 1st August, 2020

i. For TOR presentation, project proponent engaged M/s Sri Sai Manase Nature Tech Pvt Ltd as EIA consulting organization. The project proponent requested for use of baseline data collected during post monsoon, 2017 for the adjoining project by other Consultant i.e. M/s PECS, Nagpur. The Committee allowed the project proponent to use the data, subject to obtaining no objection and authorization for utilization of data from the M/S PECS, Nagpur. Now, EIA report was prepared by M/s Paramarsh (Servicing Environment & Development). While giving permission to use the base line data of another project, PECS consultant mentioned that they would not take any responsibility of accuracy or quality of data provided.

ii. Required water 415 KLD will be drawn from company's own water reservoir.

iii. EIA is very sketchy and does not provide sufficient information of process, machinery and raw materials to be used. Criteria for selection of sampling locations was not furnished. Noise levels have been monitored even at 7.5 km from project site.

iv. 44 parameters have been analysed in water. Basis for selecting these 44 parameters is not available. BOD level in Surface water is 1.0 ppm with coliform level of 800 MPN.

v. Rainwater harvesting details were not furnished.

vi. EB and SE data are mere reproduction of inventory and demographic data of 2011 respectively. No Primary data collected, Interpretation of same and project impacts of EB and SE based on the analysis and interpretation not available.

vii. CER Activities have not been taken from public consultation proceeds and SIA out comes. The activities proposed in the table are not CER as per OM dated 1sy May 2018.

viii. TOR Compliance with respect to Hazard Identification and Risk Assessment is not project specific.

Recommendations of the committee held during 30th July – 1st August, 2020

In view of foregoing, after detailed deliberations, the committee returned the proposal in the present form and advised project proponent to prepare EIA report with one-month fresh baseline data, preferably collected after monsoon, to substantiate existing data and make fresh application for EC.

24.2.3 **M/s. Metarolls Ispat Pvt. Ltd.** has submitted revised application vide proposal no. IA/MH/IND/178253/2018 dated 16/10/2020 along with copy of EIA/EMP report and Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3 (a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent

24.2.4 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord
15/09/2018	36th meeting held on 10th October 2018	Terms of Reference	13/12/2018

24.2.5 The project of M/s Metarolls Ispat Pvt. Ltd located in Village -Daregaon, Tehsil Jalna, District Jalna, State Maharashtra is for setting up of an expansion of Steel plant for enhancement of production of MS Billets/Alloys Billets and TMT Bars Production 1,58,400 TPA to 7,28,400 TPA and 1,58,400 TPA to 7,28,400 TPA and Setting up of additional unit ferro Alloys unit for Production of Production of Ferro Manganese 21500 TPA or Silico Manganese 18000 TPA.

24.2.6 The existing project was accorded environmental clearance vide lr.no. SEAC 201I/CR-683/TC2 dated 30th Sep. 2014.

24.2.7 It has been reported that the Consent to Operate from the Maharashtra State Pollution Control Board was obtained vide Lr. NoBO/JD (APC)/UAN No. 0000042822/R/CC-1808000690 dated 16.08.2018 validity of CTO is up to 31st May 2023.

24.2.8 The proposed capacity for different products for new site area as below.

Name of Unit	Nos. of Unit	Capacity of each unit	Production Capacity
Induction Furnace	3 units	2 x 40 TPH, and 1 x 50 TPH	728400 TPA
Rolling mill	-	-	728400 TPA
Submerged EAF	1 unit	9 MVA	Ferro Manganese 21500 TPA or Silico Manganese 18000 TPA

24.2.9 The total land required for the project is 19.05 Acres, out of which 10.5 ha is an industrial land. No forestland is involved. The entire land has been acquired for the project. It has been reported that no water body/ water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

24.2.10 The topography of the area is flat and reported to lies between 19°50'27.91"N to 19°50'40.55"N Latitude and 75°50'22.56"E to 75°50'39.21"E Longitude in Survey of India topo sheet No. 47 M/13, at an elevation of 534 m AMSL. The ground water table reported to ranges between 2-5 m below the land surface during the post-monsoon season and 10-20 m below the land surface during the pre-monsoon season. Further, the stage of groundwater development is reported to be 53.8% in core and buffer zone respectively and thereby these are designated as safe areas.

24.2.11 No national park /wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

24.2.12 The details of the raw material requirement are given as below:

Table 1: Raw Material Characteristics (Billets Manufacturing)

Sr. No.	Particular	Quantity (TPA)	Source	Mode of Transportation
1	Scrap	438480	Sister Industry/Open Market	By road
2	Sponge Iron	310800	Open Market	By road
3	Other Minerals	15120	Open Market	By road
Total		**764400**		

Table 2: Raw Material Characteristics (TMT Bar Manufacturing)

Sr. No.	Particular	Quantity (TPA)	Source
1	Billets	728400	In-house

Table 3: Raw Material Characteristics (Ferro Manganese Manufacturing)

S. No.	Raw Materials	Quantity (MT)
1	Manganese Ore (with Average Mn 44%)	2.1 – 2.4
2	Coke (with average Fixed Carbon 80%)	0.30
3	Coal (with average Fixed Carbon 60%)	0.3
4	Dolomite	0.2

Table 4: Raw Material Characteristics (Silico Manganese Manufacturing)

S. No.	Raw Materials	Quantity (MT)
1	Manganese Ore (with Average Mn 44%)	2.5 – 2.8
2	Coke (with average Fixed Carbon 80%)	0.40
3	Coal (with average Fixed Carbon 60%)	0.40
4	Dolomite	0.2

24.2.13 The targeted production capacity of the plant is 728400 TPA for Billets, 728400 TPA for TMT Bars and Ferro Manganese 21500 TPA or Silico Manganese 18000 TPA. The ore for the plant would be procured from local market. The ore transportation will be done through Road.

24.2.14 The manufacturing process of proposed project does not require water at any stage. The water requirement in the project will be for cooling purpose, domestic consumption and green belt development. Total initial water requirement for the project will be 415 KLD. This requirement will be met from own reservoir.

24.2.15 The existing power requirement is 29.0 MW and additional 26.0 MW will be required for proposed expansion. The power will be sourced from the Maharashtra State Electricity Board.

24.2.16 Baseline Environmental Studies

Period	1st September 2020 to 30th September 2020
AAQ parameters at 8 locations	$PM_{2.5}$ = 14.2 to 29.7 µg/m^3 PM_{10} = 37.2 to 71.4 µg/m^3 SO_2 = 9.3 to 14.3 µg/m^3 NOx = 12.2 to 21.3 µg/m^3
AAQ modelling	PM_{10} =1.1 µg/m^3 NOx = 3.1 µg/m^3
Ground water quality at 4 locations	pH: 6.77– 7.11, Total Hardness: 215 – 365 mg/l, Chlorides: 142.4 – 287.5mg/l, Fluoride:0.3 – 0.6 mg/l. Heavy metals are within the limits

Surface water quality at 3 locations	pH: 7.56 – 8.13.; DO: 4.5– 5.3 mg/l and BOD: 5.0 – 12.0 mg/l
Noise levels	47.3 to 67.3 dB (A) for daytime and 40.7 to 63.8 dB (A) for nighttime.

24.2.17 It has been reported that there is no rehabilitation and resettlement involved in the project.

24.2.18 It has been reported that a total of 24130 TPA of waste will be generated due to the project, out of which 24130 TPA will be used in brick manufacturing. It has been envisaged that an area of 6.25 acres (2.53ha) will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

The Major Solid waste is slag. The details are given below:

Sl. No.	Particular	Existing	Proposed	Total	Mode of disposal
1.	Induction Furnace Slag	4990 TPA	17690 TPA	22680 TPA	Process slag will be sold to brick manufactures
2.	Submerged Electric Arc Furnace	-	14850 TPA	14850 TPA	
3.	Used and Waste oil	2.0 KL/Annum	2.0 KL/Annum	4.0 KL/Annum	Will be sold to authorized vendor

24.2.19 The public hearing of the project was held on 15.06.2019 at plant site under the chairmanship of District Magistrate for production of MS Billets/Alloys Billets and TMT Bars Production 1,58,400 TPA to 7,28,400 TPA and 1,58,400 TPA to 7,28,400 TPA and setting up of additional unit ferro Alloys unit for Production of Production of Ferro Manganese 21500 TPA or Silico Manganese 18000 TPA. The issues raised during public hearing are related to Development of Greenery in surrounding area, to conduct Training development Program, employment to the local persons, Air Pollution related issues, Management of Slag etc. An amount of 1.5 Cr. has been earmarked for addressing the public hearing issues.

24.2.20 It is reported that the employment generation from the expansion is 850 Nos.

24.2.21 The capital cost of the project is Rs 200.0 Crores and the capital cost for environmental protection measures is proposed as Rs. 10 Cr. The annual recurring cost towards the environmental protection measures is proposed as Rs 85.0 Lakhs.

24.2.22 The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

S. No	Item	Capital Cost (Crores)	Recurring Cost per annum
1	Air Pollution Control • Bag Filters • Water Sprinklers • Stack	5.5	20.0

S. No	Item	Capital Cost (Crores)	Recurring Cost per annum
2	Water Pollution Control • STP • Drainage	0.75	15.0
3	Noise Pollution Control • Acoustic Enclosure • Noise Proof Cabins	1.5	5.0
4	Environment Monitoring and Management Environmental	0.5	15.0
5	Occupational Health • Ambulance • Dispensary • Drinking Water Facility	0.5	15.0
6	Greenbelt	0.5	5.0
7	Safety Management • PPES • Safety equipment • Sign Boards	0.75	5.0
8	Laboratory and Chemicals	**-**	**5.0**
	Total	**10.0**	**85.0**

24.2.23 Greenbelt will be developed in 2.53 ha which is about 33.0 % of the total acquired area. A 100 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 6325 saplings will be planted and nurtured in 2.53 hectares in 5 years.

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

24.2.25 Name of the EIA consultant: Paramarsh Servicing Environment and Development [S.No. 147, List of ACOs with their Certificate / Extension Letter no. Rev. 3, Oct. 14, 2020].

Certified compliance report from Regional Office

24.2.26 The Status of compliance of earlier EC was obtained from Regional Office, Nagpur vide Lr. No. EC-997/RON/2019 NGP/7382, dated 23.10.2020 wherein partial non-compliances have been reported with respect to increase in number of AAQ and noise monitoring locations and uploading of six monthly compliance report on company's website.

Observations of the Committee

24.2.27 The Committee noted the following:

i. 415 KLD water required shall be drawn from company's own water reservoir.
ii. EIA is very sketchy and does not provide sufficient information of process, machinery and raw materials to be used.

iii. Criteria for selection of sampling locations has not been furnished. Noise levels have been monitored even at 7.5 km from project site, not in conformity with CPCB norms.

iv. 44 parameters have been analyzed in water. Basis for selecting these 44 parameters is not available. BOD level in Surface water is 1.0 ppm with coliform level of 800 MPN which is Below Detectable Limit.

v. Rainwater harvesting details have not been furnished.

vi. EB and SE data are mere reproduction of inventory and demographic data of 2011 respectively. No Primary data collected, Interpretation of same and project impacts of EB and SE based on the analysis and interpretation not available.

vii. Action plan to address the issues raised during public consultation as per the MoEF&CC O.M. No. 22-65/2017-IA.III dated 30/09/2020 shall be submitted.

viii. TOR Compliance with respect to Hazard Identification and Risk Assessment is not project specific.

ix. Base line data collected from 1st Sept to 30th Sept, 2020. Sept month is not post monsoon. This year monsoon continued till end of Sept 2020,

x. In the absence of engineering drawing layout, the adequacy of the land for the proposed project could not be ascertained. Engineering drawing for the layout shall be furnished.

xi. Action plan to mitigate the impacts towards the Daregaon Village which is adjacent to plant boundary shall be elucidated.

xii. Non compliances reported by the Regional Office of the MoEF&CC have not been closed.

Recommendations of the Committee

24.2.28 In view of the above, the Committee, after deliberations, recommended to return the proposal in present form.

24.3 Expansion, Modernization of existing facilities along with integration of existing environmental clearances [Sponge Iron Plant - 6,50,000 TPA; Capacity enhancement of Steel Melting Shop from 4,00,000 TPA to 7,00,000 TPA; Power generation – 73 MW; Ferro Alloys – 16,500 TPA; Pig iron – 33,000 TPA; H.B. Wire – 1,00,000 TPA; Oxygen & Nitrogen plants; Fly ash brick plant, Iron ore beneficiation – 10,00,000 TPA; Rolling Mill – 4,00,000 TPA; Induction Furnace for Casting in place of Arc Furnace–5,000 TPA; Iron Ore Pellet Plant – Capacity enhancement from 21,00,000 TPA to 24,00,000 TPA; Coal Gasification System - 60,000 Nm^3/hr to 92,000 Nm^3/hr; Slag Crushing Plant – 1,75,000 TPA and Mineral grinding unit – 2,00,000 TPA) by **M/s. Godavari Power and Ispat Limited** located at 428/2, Phase-I, Industrial Area, Siltara, **Raipur, Chhattisgarh** - [Online Proposal No. IA/CG/IND/4250/2005, File No. J-11011/326/2005-IA.II.(I)] **– Reconsideration for grant of Environment Clearance – regarding.**

24.3.1 **M/s. Godavari Power and Ispat Limited** has made online application vide proposal no. IA/CG/IND/4250/2005 dated 18/06/2020 along with copy of EIA/EMP report and Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category "A" EIA Notification, 2006 and the project is appraised at the Central level.

24.3.2 The aforesaid proposal was earlier considered in 21st meeting of the Re-constituted EAC (Industry-I) held during 30th July – 1st August, 2020 wherein the Committee recommended to return the proposal in present form in view of the following:

Observations of the Committee (EAC held during 30th July – 1st August, 2020)

The Committee observed the following:

i. The project site is located in a critically polluted area namely Siltara Industrial Area having CEPI score of 79.94.
ii. EIA report has not been prepared as per the requirement of Appendix III of EIA Notification 2006. The information that is required to be part of main EIA has been given in Annexures. There is a lot of repetition of data and text in several chapters. There is no mention in Chapter 2 of the solid waste generated and managed at present. The Chapter also does not describe all units installed and operated in the plant. It does not give details of pollution control systems installed with existing unit.
iii. Stack emissions norm has been reported as 35 mg/Nm^3. PM_{10} value in AAQ in Siltara, a critically polluted area, has been reported as maximum, 82.6 µg /Nm^3.
iv. Noise levels has been monitored at 4.0 KM away from the plant. Criteria for selecting sampling locations has not been provided.
v. Three soil samples have been taken without defining the basis of selecting sampling locations and the vital parameters like CEC and SAR in the soil analysis have not been reported.
vi. Interpretation of physical, biological and social base line data has not been done to anticipate likely impacts of the proposed developmental activity on the site and that of site on the plant.
vii. AAQ modelling has been done only for normal operation, accidental release not considered.
viii. Impacts Chapter 4 is all text book and not based on data and same observed in Chapter 2 and interpretation in chapter 3. The matrix on pdf page 286 of Chapter 4 is generic and can be used for EMP in any EIA for the Steel Sector. There is nothing specific to site and project in this table.
ix. Hazard Identification and Risk assessment(HIRA).
x. Summary of activities to be considered for CER from Public hearing proceeds and from SIA have not been given in Chapter 3 (SIA in Annexure XIV) and Chapter 7 (7.1.2)
xi. RO compliance dated 13.6.2019 indicates several partial noncompliance. ATR of 17.6.2020 and closure verification for the same is not available.
xii. The report on RWH is inconclusive with respect to meeting the TOR requirement of more than 100% recharge annually.
xiii. Status of phasing out of 5 Nos of 7 T IF has not been presented in EIA report.
xiv. There is no railway siding in the plant and 100 % material is being transported by road and in a few cases from stations more than 1000 KM away from the plant.
xv. There are only 7 stacks indicated and considered for modelling of air quality (pdf page 269). There are more than 7 stacks in the plant as seen by subcommittee during the plant visit.
xvi. The committee felt that EIA/EMP report submitted by M/s. PECS is not in line with the of Appendix III of EIA Notification 2006. The information which are essential for due diligence by the EAC has been given in Annexures. There is a lot of repetition of data and text in several chapters. There is no mention in Chapter 2 of the solid waste

generated and managed at present. The Chapter also does not describe all units installed and operated in the plant. It does not give details of pollution control systems installed with existing unit. Earlier also, EAC has raised concern on such similar issue with the same consultant on several occasions **wherein EAC advised MoEF&CC to refer the matter to QCI/NABET,** in case of no improvement from the consultant. Therefore, **EAC advised MoEF&CC to refer the matter to QCI/NABET as the consultant is repeatedly exhibits no improvement.**

Recommendations of the Committee (EAC during 30th July – 1st August, 2020)

In view of the foregoing and after deliberations, the Committee recommended to return the proposal in present form. Further, the Committee also recommended to **refer the matter to QCI/NABET for taking appropriate action against M/s. Pollution and Ecology Control Services** in respect of metallurgical industries as the consultant is consistently not improving the quality of the EIA/EMP report".

24.3.3 The project proponent has again submitted the updated application to the Ministry vide proposal number IA/CG/IND/4250/2005 dated 16/09/2020 to the Ministry. The proposal was considered by the EAC in its 23rd meeting held on 28-30th September, 2020. The relevant portion of the minutes of the meeting is given as below:

Proceedings of the EAC meeting held during 28-30th September, 2020

The proposed expansion and modernization of M/s. Godawari Power &Ispat Limited located in Plot No. 428/2, Phase-I, Industrial Area, and 930,716, 722/3 & others,Siltara, Raipur-493111, Chhattisgarh.

The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord
09/02/2019	5th meeting held on 27th to 29th March 2019	Terms of Reference	08/05/2019
16/05/2019	7th meeting held on 29th to 31st May 2019	Amendment in ToR	19/07/2019

The project of M/s. GPIL is located in Plot No. 428/2, Phase-I, Industrial Area Siltara, and 930,716, 722/3 & othersRaipur-493111, Chhattisgarh has submitted the proposal for setting up of Expansion/Modernization of some existing facilities and merger of all the existing ECs.

The details of the existing ECs and its present status are as follows: -

S.No.	EC No. & Date	Name of the Unit	Capacity (TPA)	Present Status
1.	EC No. J-11011/326/ 2005-IA-II(I) Dated 02/03/2006	Sponge Iron	2,60,000	Operational
		Steel Billet	2,00,000	Operational
		Power (AFBC/WHRB)	25 MW	Operational
		Oxygen Plant	12,00,000 Nm^3	Operational
		Nitrogen Plant	45,00,000 Nm^3	Operational
		Fly Ash Brick Plant	1,65,00,000 Nos.	Operation discontinued

S.No.	EC No. & Date	Name of the Unit	Capacity (TPA)	Present Status
2.	EC No. J-11011/179/ 2009-IA-II(I) Dated 25/08/2009	Iron Ore Beneficiation Plant	10,00,000	Consent to operate vide letter No. 9247/CECB/2020 dt 16.01.2020 from CECB, Raipur.
		Rolling Mill	3,00,000	Operational
		Arc Furnace (to be revised to Induction Furnace for Casting)	5,000	ToR granted for amendment in EC.
		Biomass based Power Plant	20 MW	Operational since 01/11/2010.
3.	EC No. J-11011/216/2014-IA-II(I) Dated 07/04/2016	Iron Ore Pellet Plant (2 Units : Kiln-1 of 6,00,000 TPA & Kiln-II of 15,00,000 TPA) along with Gasification System for Iron Ore Pellet Plant 15 x 4,000 Nm3/hr	21,00,000 TPA Pellet along with Producer Gas 60,000 Nm3/hr	Operational

EC Amendments obtained:
For EC No. : J-11011/326/ 2005-IA-II(I) Dated 02/03/2006

Sl. No.	EC Amendments	Activities	Capacity (In TPA)	Amendment	Present Status
1	Vide dated 08/02/2012	Steel Billets	2,00,000	Change for use of Electric Arc Furnace instead of Induction Furnace route.	Reversed under item No. 3 below
2	Vide dated 12/05/2012	Sponge Iron	4,95,000	Increase in production capacity from 4,95,000 TPA to 6,50,000 TPA.	Applied for Consent to Establish/ Operate to CECB, Raipur (C.G.).

Sl. No.	EC Amendments	Activities	Capacity (In TPA)	Amendment	Present Status
3	Vide dated 30/06/2017	Steel Billets	2,00,000	Change for use from Electric Arc Furnace to original Induction Furnace route.	Reversal of item No. 1 as above

For EC No: J-11011/179/ 2005-IA-II(I) Dated 25/08/2009

Sl. No.	EC Amendment	Activities	Capacity (In TPA)	Amendment	Present Status / Remarks
1	Vide dated 17/08/2015	Rolling Mill	3,00,000	Increase in production capacity from 3,00,000 TPA to 4,00,000 TPA	Operational
2	Vide dated 21/07/2017	Iron Ore Beneficiation Plant / Rolling Mill / Arc Furnace / Biomass based Power Plant		Extension of validity of Environment Clearance up to 24/08/2019.	Biomass power plant already operational. Already applied for Consent to Operate for Iron Ore Beneficiation Plant of 10,00,000TPA and Rolling Mill of capacity 4,00,000 TPA. To be revised from arc to Induction Furnace for casting (including engineering & fabrication).

The details of the existing capacity as per the ECs along with the propose expansion is furnished as below:

Sl. No.	Name of the Unit	Existing Capacity (As per EC)	Proposed Amendments / Remarks	Total after approval of this proposal
1	Sponge Iron	4,95,000 (Later amended to 6,50,000)	No change	6,50,000 TPA (1x350 TPD & 3 x500 TPD)

Sl. No.	Name of the Unit	Existing Capacity (As per EC)	Proposed Amendments / Remarks	Total after approval of this proposal
2	Steel Billet	4,00,000	Modernization and enhancement in production capacity of Steel Melting Shop (Billets) from existing 4,00,000TPA(7T X 5, 12T X 3, 15T X2, 30TX 2) to 7,00,000 TPA(12T X 5, 12 T X 6, 15 T X 6, 30T X4 IF's) by change in configuration of induction furnaces and installation of additional furnaces.	7,00,000 TPA (12T X 5, 12 T X 6, 15 T X 6, 30T X4 IF's)
3	Power (AFBC/WHRB) & Biomass Power Plant	73 MW	Modernization of existing power plant by change in configuration of existing 3 TG Sets [TG-1 : 9 MW, TG-2 : 9 MW, TG-4 : 30 MW (+1 standby of capacity 10 MW)] with one new energy efficient TG set of 48 MW capacity (+ 1 standby of capacity 10 MW) and all existing TG shall also be retained for abnormal situations/ in case of no change in configuration due to some unavoidable reasons.	73 MW (48 MW+25 MW) (all Existing TGs 9MW + 9MW + 10 MW (Standby) + 30MW + 25 MW to be retained for adversity)
4	Ferro Alloys	16,500	No change	16,500TPA
5	Pig Iron	33,000	No change	33,000 TPA
6	H.B. Wire	1,00,000	1,00,000	2,00,000 TPA
7	Oxygen Plant	12,00,000NM^3	No change	12,00,000 NM^3
	Nitrogen Plant	45,00,000NM^3	No change	45,00,000 NM^3
8	Fly Ash Brick Plant	1,65,00,000 Nos.	No change	1,65,00,000 Nos.
9	Iron Ore Beneficiation Plant	10,00,000	Capacity enhancement from 1000000 to 3284000 TPA	32,84,000 TPA
10	Rolling Mill	3,00,000 (Later amended to 4,00,000)	No change	4,00,000 TPA
11	Arc Furnace	5,000	(to be revised to Induction Furnace for Casting) including Engineering & Fabrication	5,000 TPA
12	Iron Ore Pelletization Plants	(Existing 2 Units : Kiln-I of 6,00,000 TPA & Kiln-II of 15,00,000 TPA) 21,00,000 TPA	Proposed enhancement in production capacity to 24,00,000 TPA without change in plant and	24,00,000 TPA (within which 22,00,000 TPA will be

Sl. No.	Name of the Unit	Existing Capacity (As per EC)	Proposed Amendments / Remarks	Total after approval of this proposal
			machinery or 24,00,000 TPA Pellet.	manufacture of Pellet + 2,00,000 TPA manufacture of Magnetite Powder or 24,00,000 TPA Pellet)
13	Coal Gasification System for Iron Ore Pellet Plant	Existing Gasifiers of 16,000 Nm^3/hr + 1 No. standby of 4,000 Nm^3/hr& 40,000 Nm^3/hr + 1 No. standby 20,000 Nm^3/hr (Total Operational : 60,000 Nm^3/hr (1 Standby of capacity 4000 Nm3/Hr)	Proposal for regularization of standby Gasifiers of 24,000 Nm^3/hr and installation of new Gasifiers of 12,000 Nm^3/hr	92,000 Nm^3/hr
14	Slag Crushing Plant	- -	Proposed	1,75,000TPA
15	Mineral Grinding Plant	- -	Proposed	2,00,000TPA

The total land required for the project is 93.82 ha, which is in industrial use. Forestland is not involved. It has been reported that there is a pond at 0.5 Km from the project site in village Tanda, there is no river within the 1 Km of the site and modification/diversion in the existing natural drainage pattern at any stage is not proposed. No R&R is involved.

The topography of the area is flat and reported to lies between 21° 22' 24.9" N to 21° 22' 38.7" N Latitude and 81° 40' 30.8" E to 81° 41' 13.0"E Longitude in Survey of India toposheet No. 64 G/11 & 64G/15, at an elevation of 282 m AMSL. The ground water table reported to ranges between 3.8 to 7.2 meter below the land surface during the post-monsoon season and 10.5 to 5.2 meter below the land surface during the pre-monsoon season.

No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve, Forest are reported to be located in the core and buffer zone of the project.

The raw material requirement for the proposed project is given as below:

S. N.	Name of Units	Raw Material	Quantity Required (TPA)	Source
1.	Sponge Iron	Pellet	9,42,500	Own source
		Coal	6,50,000	Coal India and its subsidiaries/open market and imported
		Dolomite	19,500	Purchase from Open market

S. N.	Name of Units	Raw Material	Quantity Required (TPA)	Source
2.	Steel Billet (SMS)	Sponge Iron	7,60,960	Own source / Purchase from Open market
		Scrap	92,030	Purchase from Open market / imported scrap
		Lime	5,954	Purchase from Open market
		Silico Manganese	10,480	Own source/ Purchase of open market
3.	Power Generation	Coal	1,13,225	Coal India and its subsidiaries / open market and imported
		Dolochar	2,678	Own source
		Rice Husk	1,67,111	Purchase from Open market
4.	Ferro Alloys / Pig Iron	Manganese Ore	34,650	Purchase from MOIL / open market and imported
		High Mn Slag	6,600	Purchase from open market
		Dolomite	495	Purchase from Open market
		Quartz	1,320	Purchase from Open market
		Coke / Steam Coal	9,900	Purchase from open market and imported
		Electrode Paste	495	Purchase from open market
		MS Item	165	Purchase from Open market
		Lancing Pipe	50	Purchase from Open market
5.	H.B. Wire	M.S. Wire Rods	2,03,000	Own source / Associate Units.
6.	Oxygen & Nitrogen Plant	Atmospheric Air	4,16,670	N/A
7.	Fly Ash Bricks Plant	Fly Ash	70,000	Own source
		Lime & Gypsum	15,000	Purchase from Open market
		Granulated Ferro Alloys Slag	7,000	Own source
		Sand	8,000	Purchase from Open market
8.	Iron Ore Beneficiation	Crushed Iron Ore	32,84,000	Captive Mines at Ari Dongri and BoriaTibbu& Open Market

S. N.	Name of Units	Raw Material	Quantity Required (TPA)	Source
9.	Rolling Mill	Steel Billets	4,25,500	Own source
10.	Induction Furnace for Casting	Steel Scrap & Borings	2511	Purchase from Open market
		Pig Iron & Silicon	277	Purchase from Open market
		Ferro Manganese	16.5	Purchase from Open market
		Ferro Silicon Magnesium	10.5	In house
		Inoculants	3.3	Purchase from Open market
		Silica Sand	250	Purchase from Open market
		Bentonoide	2.5	Purchase from Open market
		Coal Dust	15	Purchase from Open market
	Fabrication / Engineering	Following Engineering Items, Steel (Plates, Pipe, Structures etc), Bearing, Gear Box, Motor, Tools and Tackles etc	2550	Purchase from Open market
11.	Mineral Grinding	Mineral Ore	2,00,000	Own Source / Purchase from Open market
12	Iron Ore Pellet Plant Total proposed capacity – 24,00,000 TPA (within which 22,00,000 TPA will be manufacture of pellet &2,00,000 TPA manufacture of magnetite Powder or 24,00,000 TPA Pellet)			
	Manufacture of Pellets – 22,00,000 TPA	Iron Ore Fines (DRY including Return Fines) and Mill scale	22,88,000	Own source and shortfall if any will be procured from outside sources
		Bentonite/ Binder	22,000	Purchase from Open market
		Lime Stone / Dolomite	35,200	Purchase from Open market

S. N.	Name of Units	Raw Material	Quantity Required (TPA)	Source
		LDO (Calorific value balancer for gasification)	2,300 KL Ignite Oil / LDO/ Tar as and when required not exceeding 2,300 KL	Purchase from Petroleum companies / open market
	Manufacture of Magnetite Powder – 2,00,000 TPA Manufacture of Pellets – 24,00,000 TPA	Magnetite Ore	2,00,000	Own source
		Iron Ore Fines (DRY including Return Fines) and Mill scale	24,96,000	Own source and shortfall if any will be procured from outside sources
		Bentonite/ Binder	24,000	Purchase from Open market
		Lime Stone / Dolomite	38,400	Purchase from Open market
		LDO (Calorific value balancer for gasification)	2,300 KL Ignite Oil / LDO/ Tar as and when required not exceeding 2,300 KL	Purchase from Petroleum companies / open market
13	Gasification System for Pellet Plant – 92,000 Nm3/hr	Coal	2,86,364	Coal India and its subsidiaries / open market and imported

The targeted production capacity of the proposed expansion is as given above. The ore transportation will be one through Rail/Road

The water requirement of the project is estimated as 17203m^3 /day. The company has also obtained the permission from Central Ground Water Board for withdrawal of 479 KL/day for drinking & sanitation purpose vide letter No. 21-4/698/CT/IND/2017 – 305 dated 2ndFebruary 2019.The company has an agreement for supply of 18,000 KL/day water with Chhattisgarh Ispat Bhoomi Limited for its industrial use in integrated steel facilities for post expansion requirement vide letter No. L 385536 dated 16th August 2019.

The power requirement of the project is estimated as 142 MW. Out of it, 73 MW power will be of captive generation and 25 MW from associate concern with captive status. Balance (shortfall) will be met through the Chhattisgarh State Electricity Board/Power Grid.

Baseline Environmental Studies were conducted during pre-monsoon season i.e. from15th March to 15thJune, 2019 Ambient air quality monitoring has been carried out at 8 locations during from15th March to 15th June, 2019 and the data submitted indicated: PM_{10} (43.4 µg/m^3 to 82.6 µg/m^3), $PM_{2.5}$ (23.4 to 45.6 µg/m^3), SO_2 (15.3 to 40.2µg/m^3) and NOx (16.8 to 45.4µg/m^3). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 3.60µg/m^3 with respect to the PM_{10}, 6.33µg/m^3 with respect to the SO_2 and 3.12µg/m^3 with respect to the NOx.

Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 7.1 to 7.8, Total Hardness: 290 to 474 mg/l, Chlorides: 40.3 to 189.5 mg/l, Fluoride: 0.3 to 0.6 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 8 locations. pH: 7.4 to 7.8; DO: 4.9 to 6.8 mg/l and BOD: <3 to 3.6 mg/l. COD from BDL to 22.4 mg/l.

Noise levels are in the range of 41.0 to 62.7 dBA for daytime and 39.7 to 50.4 dBA for night time.

It is reported that there is no R&R involved in the proposed project.

The solid wastes to be generated and scheme for their Management/disposal are given below:

Solid Waste generation	Existing Quantity (TPA)	Proposed Quantity (TPA)	Total Quantity (TPA)	Method of Disposal
Sponge Iron Plant				
Char &Dolochar	1,30,000	No Change	1,30,000	Used in captive power plant (AFBC) & sold to secondary users viz. power plant of our associated unit M/s. Jagdamba Power and other brick manufacturing units.
Dust from Settling Chamber	45,500	No Change	45,500	It is being used for brick manufacturing and low lying areas, making of internal & external roads.
ESP Dust	45,500	No Change	45,500	
Steel Melting Shop				
Slag	1,00,000	75,000	1,75,000	Slag Generation will be approx. @25% and total generation approx. 175000 TPA Slag will be crushed in proposed slag crusher and mag-part (approx. 25000 TPA) of slag will be sent to SMS for re-melting while granulated Non-mag (approx. 150000 TPA) will be utilized for road base making, cement manufacturing and for

Solid Waste generation	Existing Quantity (TPA)	Proposed Quantity (TPA)	Total Quantity (TPA)	Method of Disposal
				reclamation of low laying areas. MOU with cement industry is signed for utilization of non-mag part of slag**.**
Power Plant				
Ash (Power Plant(70 TPH BOILER)	No Change	No Change	85,071	Supply to cement plants/ brick manufacturing units, road base making and reclamation of low laying area.
Ash (Biomass based Power Plant(100 TPH BOILER)				
H.B. Wire/Rolling Mill				
Mill scale	9500	4500	14000	Will be recycled in Ferro Alloys / SMS units/ Pellet Plant.
Iron Ore Beneficiation Plant				
Tailings	1,96,000	4,48,000	6,44,000	Tailings from beneficiation plant will be used in embankments, road formation, filling of low-lying areas and as additives in cement manufacturing. The company has entered into a MOU with Ultratech Cement Limited for utilization / disposal of Tailings in their Cement plant unit at Rawan Cement Works, Village : Rawan, Dist. Baloda Bazar, Chhattisgarh.
Iron Ore Pellet Plant with Gasification System				
Ash (Sinder)	77175	11025	88200	Utilized for fly ash brick making and reclamation of low laying areas.
Tar	14,700 KL	2550 KL	17250 KL	Tar generated from coal gasification plant is being utilized in Pellet Plant and excess quantity being sold to authorized parties, Company has obtained

Solid Waste generation	Existing Quantity (TPA)	Proposed Quantity (TPA)	Total Quantity (TPA)	Method of Disposal
				Authorization under Hazardous and Other Wastes (Management & Transboundary movement) Rules, 2016 (as amended).
Dust collected through Sweeping Machine	182.5 T	-	182.5 T	It will be utilized for brick manufacturing, filling of low lying areas and in pellet manufacturing**.**
Entire Plant				
Waste Refractory	350	50	400	Generated only during replacement of refractory material. Sold to outside parties for reuse and for inside road base making etc.
Process ETP Sludge	141	10	151 MT	Disposal through CTSDF/sold to authorized recyclers
Sewage Treatment Plant Sludge	3.0	0.5	3.5 MT	Used as soil conditioner on-site plantation.
Misc. wastes Metal	4000	-	4000 MT	In-house consumption in SMS/Pellet plant
Electrical	0.2	0.05	0.250 MT	
wood scrap	0.5	0.5	1 MT	In-house consumption during light up of plant, reused for usable wooden items.
Canteens				
Biodegradable food wastes, paper and other wastes	5.0	2.0	7.0 MT	It is converted into compost manure through mechanical compost convertor and utilized for green belt development.

The Green belt of 34.35% has been developed in the existing land of 86.464 ha and additional land 7.361 ha.is purchased further plantation will be developed in the additionally purchased land. GPIL has already planted about 73439 numbers of trees in the premises and proposed to plant additional 7500 no. of saplings. This includes gap filling of trees at various locations of the plant and approx. An area of 32.36 haland (known as Oxyzone) has been allotted by Chhattisgarh Industrial Development Corporation in the village Siltara Phase-2 for plantation, in which around plantation of 37,000 saplings has been done. Total existing green belt cover (including outside plantation) more than 40%.

The Public hearing of the project was held on 17thFebruary 2020at Plot no. 428/2, Siltara Industrial Centre Phase 1, District Raipur, Chhattisgarh under the chairmanship of District Magistrate and Additional Collector for Expansion and Modernization of existing facilities along with the merger of exiting EC. The issues raised during public hearing are employment, pollution control & green belt development etc. An amount of 400 Lakhs has been earmarked based on public hearing issues.

The total capital cost of the project is Rs. 1988.87 Crores including existing Rs. 1789.22 Crores. The capital cost for environmental protection measures is proposed as Rs. 340Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 63.0 Lakhs**.** The total employment generation from the existing and proposed project is 3585.

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

Name of the EIA consultant: Pollution and Ecology Control Services [S.No. 74, List of ACOs with their Certificate / Extension Letter no. Rev. 02, Sep. 07, 2020].

Certified compliance report from Regional Office

The Status of compliance of earlier EC was earlier obtained from Regional Office, Nagpur vide Lr. No. EC-99/RON/2019-NGP/5396, dated 13th June 2019 wherein observations have been made with respect to dust control, density of plantation, provision of evacuation route in SMS plant, usage of PPE by workers and use of solar energy etc. The action taken report was submitted by project proponent to RO on 17/06/2020 and closure report was furnished by the RO on 15/09/2020.

Observations of the Committee held during 28-30th September, 2020

The Committee observed the following:

i. Traffic assessment study inter-alia including existing and proposed expansion has not been addressed in the EIA report.

ii. Energy conservation measures to be adopted in the present expansion proposal has not been enumerated.

iii. Action plan for phasing out of 10 Nos 7 T Induction Furnaces has not been furnished.

iv. Action plan for rain water harvesting needs to be revisited.

Recommendations of the Committee held during 28-30th September, 2020

In view of the foregoing and after deliberations, the Committee deferred the consideration and sought following additional information:

i. AAQ Values in Siltara are high. Therefore, action plan to limit the PM emissions from the plant to less than 30 mg/Nm^3 shall be submitted.

ii. Action plan for phasing out of 10 Nos 7 T Induction Furnaces shall be submitted.

iii. Action plan for Green belt development covering 40% of the total project area inside the factory premises shall be furnished.

iv. Action plan for rain water harvesting more than annual water consumption shall be submitted.

v. Fourth hole extraction system shall be installed on SAF for fume extraction.

vi. Energy conservation measures to be taken in the present proposal shall be submitted.

vii. GHG emission inventory for the entire plant shall be prepared and measures to conserve energy shall be taken as annual targets.

viii. Sludge drying beds shall be replaced by filter presses and dry disposal of sludge shall be practiced, Sludge from STP shall be recycled to biomass power plant or a sludge digester shall be used to generate energy.

ix. Action plan for 100 % Fly ash utilization shall be submitted.

x. Detail traffic study shall be conducted for the roads leading to plant gates. Details about vehicles parked on road side at day and night shall be furnished.

In addition to the above, the Committee also recommended that MoEF&CC may issue show cause notice to M/s. Pollution & Ecology Control Services, Nagpur for blacklisting from participation in any EIA process in respect of Metallurgical Industries as they have consistently not improved the quality of the EIA report despite repeated warnings given by the EAC and show cause issued by QCI/NABET. MoEF&CC has earlier also written to NABET about the M/s. PECS, Nagpur in this instant case as well.

24.3.4 The project proponent has submitted the reply to the ADS on 19/10/2020. The proposal was considered by the EAC in its 24th meeting held on 27-29th October, 2020. The reply to the ADS points are summarized as below:

Point No. 1 AAQ Values in Siltara are high. Therefore, action plan to limit the PM emissions from the plant to less than 30 mg/Nm^3 shall be submitted.

Reply:

All the stacks envisaged under the proposed expansion will have the emission level less than 30 mg/Nm^3. All Pollution control system will be installed simultaneously with main plant after grant of EC and CTE.

Unit	**Pollution control equipment with capacity (Proposed)**	**Prescribed stack emission standard by MoEF (mg/Nm^3)**	**Action plan to achieve less than 30 mg/Nm^3 emission standard**
Proposed Project			
SMS (400000 TPA to 700000TPA)	Bag filter (80000 m^3/hr)	30 mg/Nm^3	Installation of efficient FES with Bag Filters (Capacity 80000 m^3/hr) with 30 meters stack
Induction Furnace in place of Arc Furnace (Capacity 5000 TPA)	Bag filter (5000 m^3/hr)	30 mg/Nm^3	Installation of FES with efficient Bag Filters (5000 m^3/hr) with 30 meters stack

All other process plants operating with valid consents are having max emission limit either 50mg/Nm^3 or 35 mg/Nm^3. These plants are operating within the emission standards prescribed in Consent to Operate.

To achieve emission standards less than 30 mg/Nm^3 PP proposed the following:

- Replacement of controller panels of Precicon III in all 4 fields with high frequency controllers.
- In addition to this, activity has been initiated to consult Thermax, ABB, BHEL, ALSTOM for further modification if required to achieve 30 mg/Nm^3.

Point No. 2 Action plan for phasing out of 10 Nos 7 T Induction Furnaces shall be submitted.

Reply:

Action plan for phasing out 7 T furnaces to 12 T by Year 2022-2023

Furnace No.	Particulars	Year
1	7 T Furnace to 12 T	2020 -21
2	7 T Furnace to 12 T	2021 -22
3	7 T Furnace to 12T	2021 – 22
4	7 T Furnace to 12 T	2022 – 23
5	7 T Furnace to 12 T	2022 – 23

Point No. 3 Action plan for Green belt development covering 40% of the total project area inside the factory premises shall be furnished.

Reply:

Plantation details within the plant premise are as follows:

Particulars	Area	No. of plants	Status
Existing Plantation within plant area.	29.70 Ha	73439	Green Belt Developed
Additional plantation near proposed slag crushing unit & mineral grinding unit	1.2625 Ha	3200	Proposed. Will be developed within one year after the grant of EC.
Total	30.9625 Ha (33% of 93.825 Ha within plant premise post expansion)	76639	-

Action Plan for Balance area:

Sl. No.	Location	Area	Plantation Target	Target Date
1.	Oxyzone (Within the periphery of 5 Km from Plant) as directed by CECB.	32.36 Ha	37000 saplings	Green Belt Developed.
2.	Plantation proposed at CSIDC Land, Phase–I Siltara Industrial Area (Within the periphery of 5 Km from Plant Site)	4.046 Ha	10150	Green Belt will be developed within 12 months from the date of grant of EC and Consents.
3.	Roadside plantation as directed by State Government.	73 kms	73000 saplings	Done
	Total	36.406 Ha (outside plant premises within the periphery of 5 Km)		

Point No. 4 Action plan for rain water harvesting more than annual water consumption shall be submitted.

Reply:

GPIL shall use ground water 56100 m^3/annum for Domestic purpose only. Potential of rain water harvesting is 483547 m^3/ annum is more than the withdrawal quantity of ground water.

The Rain Water Harvesting Scheme (potential and implementation action plan) of M/s Godawari Power &Ispat Ltd located at Siltara Industrial Area, Distt. Raipur (C.G.) is as follows :-

Rain Water Harvesting Schemes	RWH Potential (m^3/year)	RWH already Implemented (m^3/Year)	% as on 30th July 2020	Further Commitment		%
				Implementation Plan (m^3/Year)	T.Date	
Roof Top RWH System	104837	37911	**36%**	66926	Before next monsoon **(June, 2021)**	**64 %**
Surface Water Harvesting (Through Ponds)	378710	211849	**56%**	166861	Before next monsoon **(June, 2021)**	**44 %**

Rain Water Harvesting Schemes	**RWH Potential (m^3/year)**	**RWH already Implemented (m^3/Year)**	**% as on 30th July 2020**	**Further Commitment**		**%**
				Implementation Plan (m^3/Year)	**T.Date**	
Total	**483547**	**249760**	**52%**	**233787**	Before next monsoon **(June, 2021)**	**48 %**
Overall %		**52**		**48**		
		100				

Point No. 5 Fourth hole extraction system shall be installed on SAF for fume extraction.

Reply: SAF emission is being captured by existing side suction and it is efficient for fume extraction followed by air cooled heat exchanger & pulse jet bag filter and outlet emission being achieved less than 30mg/Nm^3. As per OEM installation of fourth hole is not feasible in SAF as it is a Semi Open Furnace. In case of EAF which is closed furnace, fourth hole is feasible. In order to check possibility and feasibility of fourth hole extraction system, we have approached a leading expert to check feasibility for installation of fourth hole extraction on existing SAF**.**

Point No. 6 Energy conservation measures to be taken in the present proposal shall be submitted.

Reply:

Sl.No	**Division**	**Activity**	**Target Date**	**Responsibility**	**Energy being Conserved**
1.	Pellet	Installation of VFD Drives in Flush water Pumps	Completed	HOD (PELLET)	saving of 100000 Kwh Annually.
2.	SID	Using Mix of RB1 Coal with Domestic Coal	Completed	HOD(SID)	GSE (Gross Specific Energy) from 5.5 to 5.10 and NSE (Net Specific Energy) from 3.7 to 3.0 G.cal.
3.	SID	Use of Ceramic Pad (Micro Porous Board) below the refractory	Completed	HOD (SID)	Reduce shell temperature by 20-30 ^{0}C which results in reduction of Coal consumption by 20-25 Kg

Sl.No	Division	Activity	Target Date	Responsibility	Energy being Conserved
					Per ton of Sponge Iron. Total Coal saving shall be 15000Mt.
4.	SID	Replacement of Bucket elevation system with Conveying system in Coal circuit	Completed	HOD (SID)	Saving of electrical energy Approx 2 Lac Kwh Annually.
5.	Power	Installation of VFD Drives in Compressors	Completed	HOD (Power)	Saving of 446000 Kwh Annually.

In addition to above, the following energy conservation measures will be taken by GPIL:

Sl.No		Activity	Target Date	Responsibility	Remarks
1.	SMS	To modernize three number of Induction furnaces (1 X 12 mt and 2 x15 mt) by replacing existing crucible and panels with energy efficient panels (low frequency)	November, 2021	HOD(SMS)	To reduce Specific power consumption by 50 Kwh
2.	SMS	Further after getting EC Approval we shall replace 5 furnaces of 7 MT to 12 mt energy efficient furnaces	Within One Year after EC Approval	HOD(SMS)	Shall reduce our Specific power consumption by 100 kwh (950 kwh to 850 kwh)
3.	Power	Installation of new Energy Efficient 48 MW TG Set in place of existing 3 Nos. ageing TG Sets	Within One Year after EC Approval	HOD(POWER)	there will be a saving of 749 M3 water per day and 5424000 kwh/year Auxiliary power.

Sl.No		Activity	Target Date	Responsibility	Remarks
4.	General	Replacement of conventional lighting with energy efficient LED lightings and installation of solar lights	Regular Work	HOD(ELECT)	Continuous Process

Point No. 7 GHG emission inventory for the entire plant shall be prepared and measures to conserve energy shall be taken as annual targets.

Reply:

In the complex of Godawari Power and Ispat Ltd. (GPIL), the sources of GHG emission are as follows:

1. **7 MW Waste Heat Recovery Plant.**

   17,828 units of emission (average 2,547 units per MW)

2. **10 MW Waste Heat Recovery Plant.**

   50,620 units of emission (average 5,062 units per MW)

3. **25 MW Waste Heat Recovery Plant.**

   1,59,926 units of emission (average 6,397 units per MW)

4. **20 MW Biomass Power Plant.**

   91,307 units of emission (average 4,565 units per MW)

5. **11 MW Coal Based Power Plant.**

Based on the above average figures of per MW generation at 1, 2, 3 & 4 the estimated annual emission units for 11 MW Coal based Power Plant can be put conservatively at 60,000 units.

Energy Consumption Target & Achievement by GPIL during PAT Cycles of BEE.

Sl. No.	PAT Cycle Reference	PAT Cycle Duration	Specific Energy Consumption Target notified by BEE	Specific Energy Consumption level achieved
1	PAT Cycle 1	1 Apr. 2012 to 31 Mar. 2015	0.666 TOE/Ton of Product	0.623 TOE/Ton of Product communicated

Sl. No.	PAT Cycle Reference	PAT Cycle Duration	Specific Energy Consumption Target notified by BEE	Specific Energy Consumption level achieved
				to BEE after due Audit
2	PAT Cycle 2	1 April 2016 to 31 March 2019	0.4691 TOE/Ton of Product	0.486 TOE/Ton of Product communicated to BEE after due Audit

Point No. 8 Sludge drying beds shall be replaced by filter presses and dry disposal of sludge shall be practiced, Sludge from STP shall be recycled to biomass power plant or a sludge digester shall be used to generate energy.

Reply:

Filter press shall be installed by 31st march 2021 to get the sludge dewatered & in dry form. Decomposed sludge generated from STP will be used as a soil conditioner and manure for plantation

Point No. 9 Action plan for 100 % Fly ash utilization shall be submitted.

Reply:

Fly ash generated from plant is being/will be utilized by Cement Plants/Brick Manufacturing units/Road Construction Agencies for road base making and Reclamation of low lying areas. Copy of MoU with Cement Plants/Brick manufacturing units has been submitted.

Action plan for 100% fly ash utilization is given below:-

Total Ash generation in TPA	85071
Total Utilization (as per MoU) in TPA	85071

Point No.10 Detail traffic study shall be conducted for the roads leading to plant gates. Details about vehicles parked on road side at day and night shall be furnished.

Reply:

As per the Traffic survey data submitted along with the EIA report indicates that the existing road leading to plant gates are catering to average density of traffic and it is expected that incremental increase in traffic due to proposed expansion project will be marginal. There is

dedicated road patch of 200 meters length and 20 metres width before entry gate for waiting vehicles and there is sufficient parking space inside plant. Width of all the internal road in the Siltara Industrial Area is 15 to 20 metres. There is provision to park 110 - 120 no. of trucks outside plant. Average No. of Trucks parked at a time during day hours is 70-80 & during night hours 30-40.

Observations of the Committee

24.3.5 The Committee observed the following:

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

ii. Additional information submitted by the project proponent found to be satisfactory, and addressing the concerns of the Committee except the rain water harvesting.

iii. The Committee requested the Ministry to issue consolidated EC in supersession of all the existing ECs accorded by the Industry 1 sector of MoEF&CC.

Recommendations of the Committee

24.3.6 In view of the foregoing and after deliberations the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 in supersession of all the existing ECs subject to the following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 pertaining to sponge iron plants, induction furnace and rolling mills based on project specific requirements:

A. Specific conditions

i. Connecting road to the plant with avenue plantation shall be maintained by PP. Traffic congestion on the road outside plant shall be avoided.
ii. Appropriate and sufficient land shall be provided for parking of heavy vehicles.
iii. Stack emissions shall be less than 30 mg/Nm^3 from all stacks in the plant.
iv. 10 Nos of IF shall be phased out by 2022-23.
v. PP shall carry out GHG emission and Carbon Footprint Study/ Carbon Budget for entire process in a time frame of two years. This study report must contain recommendation for minimizing the Carbon Footprint. These recommendations shall be implemented in a time bound manner and progress in this regard shall be reported to the Regional Office on an yearly basis – as of 31st March of each year.
vi. Sludge drying beds shall be replaced by filter presses and dry disposal of sludge shall be practiced.
vii. Fugitive emissions shall be controlled by providing paved roads, industrial vacuum cleaners, water spray, covered sheds and by recycling the dust collected to the plant.
viii. 100 % water consumed annually shall be harvested and recharged with monitoring facilities.

ix. Water consumption shall be brought down to less than 5 m^3/t of steel as per CREP Charter and subsequently the same shall be reduced to 4.5 m^3/t of steel within two years.
x. 100 % dolochar shall be used for power generation within the plant.
xi. 100 % waste utilization shall be practiced and dumping of waste shall not be permitted.
xii. 40% Green Belt shall be developed in the plant area and outside within 5 km of the plant.
xiii. A resource efficiency group shall be created to set annual targets for resource conservation and annual reports shall be furnished to RO.

B. General conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

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

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognised 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. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

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

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 414 (E) dated 30th May 2008; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF); 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. Adhere to 'Zero Liquid Discharge'.

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

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

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 as far as possible.

ii. 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.

iii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused in melting Furnaces.

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

VII. Green Belt

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

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

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. Corporate Environment Responsibility

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

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

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

X. Miscellaneous

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

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

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

iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

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

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

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

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

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

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

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

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

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

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

24.4 Expansion in production capacity of Asbestos & Non Asbestos Cement Sheets and Pressure Pipes from 1,60,000 MTPA to 2,40,000 MTPA by **M/s ARL Infratech Ltd** (Formerly M/s. Ankit Roofings Ltd) located at Location: Khasra Nos. 718, 719, 720, 721, 885/722 & 717(part), Village Dahami Khurd, Bagru, Tehsil Sanganer, **District Jaipur, Rajasthan** - [Online Proposal No. IA/RJ/IND/4374/2007; File No. J11011/343/2007-IA.II.(I)] – **Re-consideration for grant of Environment Clearance based on ADS reply – regarding.**

24.4.1 The aforesaid proposal was earlier considered in 16th meeting of the Re-constituted EAC (Industry-I) held during 24-25th February 2020 and reconsidered during 20th meeting of the Re-constituted EAC (Industry-I) held during 25-26th June, 2020 and the relevant portion of the minute of the meeting is given as below:

Proceedings of the EAC meeting held on 25-26th June, 2020

M/s ARL Infratech Ltd. (Formerly M/s Ankit Roofing Ltd.), has made an online application vide proposal no. IA/RJ/IND/4374/2007 dated 5th February 2020 in prescribed Form – 2 along with EIA Report and other documents to seek Environmental Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 4 (c) Asbestos Milling & Asbestos based products under Category "A" in the schedule of EIA Notification, 2006 and the project is appraised at the Central level.

The proposal of M/s ARL Infratech Ltd (Formerly, M/s Ankit Roofing Ltd.) for expansion of Asbestos & Non Asbestos Cement Sheets and Pressure Pipes from 160,000 TPA to 240,000 TPA located in Village Dahami Khurd, Bagru, Tehsil - Sanganer, District - Jaipur, State Rajasthan. The proposal was initially received in the Ministry on 31.01.2019 & subsequently, on account of deficiencies, it was resubmitted on 14.02.2019, 19.03.2019 & 06.06.2019 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Reconstituted Expert Appraisal Committee (Industry) [EAC (I)] during its 8th meeting held 26.06.2019 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance Accordingly, the Ministry has prescribed ToRs to the project on 03.02.2020 vide Lr. No. IA-J11011/343/2007-IA.II (I).

The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of accord
31/01/2019 and resubmitted on 14/02/2019, 19/03/2019 & 06/06/2019	8th meeting held on 26.06.2019	Terms of Reference	03/02/2020

The existing project was granted EC to M/s Ankit Roofings Ltd vide lr. No. J-11011/ 343/ 2007 -IA.II (I) dated 27.08.2007. Consequent upon name change of the company, the Ministry changed the name of the company in the EC letter vide letter no. J11011/343/2007-IA.II(I) dated 24.01.2020.

The Status of compliance of earlier EC through Regional Office, Lucknow vide letter no. IV/Env/R/IND-74/553/2007/172 dated 15.05.2019 and action taken report over non-compliances have been seen.

The proposed capacity for different products for site area is as below:

Name of Unit	**Existing Capacity**	**Additional Capacity**	**Capacity after expansion**
Asbestos & Non-Asbestos Cement Sheets & Pressure Pipes	1,60,000 MTPA	80,000 MTPA	2,40,000 MTPA

The total land area required for the project is 72,263 sq.m (existing: 35,100 sq. m & proposed expansion: 37,163 sq.m). The land for existing project comprising of Khasra Nos. 719, 720, and 721 has been duly converted for industrial use. The land for proposed expansion project comprising of Khasra no. 718 admeasuring 6400 sq.m., Khasra no. 717(part) admeasuring 10,818 sq. m. & Khasra no. 885 admeasuring 19,945 sq. m. are duly converted for industrial use. No river or water body passes through the project area. Sadariya Nadi (seasonal) is located at ~1.4 km towards South of the project site and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

The topography of the project area is flat and reported to lie between 26°48’56.11"N” to 26°49’4.95"N Latitude and 75°34’13.60" to 75°34’26.78” E Longitude in Survey of India topo sheet No. 45 N/9 at an elevation of 360 m AMSL. The ground water table reported to range between 27 to 30 m below the land surface during the post-monsoon season and 30 to 35 m below the land surface during the pre-monsoon season.

No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in the study area. The area also does not report to corridor for Schedule-I fauna. Pavo Cristatus (Schedule I) i.e. Indian Peafowl is reported from the buffer area. Wildlife conservation plan has been submitted to Dy. Conservator of forest, Jaipur for authentication and the same is under process.

The process of project showing the basic raw material used and the various processes involved to produce the final output, waste generated in process are as below:

S. No.	**Raw material**	**Nature**	**Unit**	**Consumption (TPD)**		**Source of Supply**	**Mode of Transport**
				Existing quantity (for asbestos based product)	**Proposed quantity (for asbestos & non-asbestos based product)**		
Asbestos& Non-asbestos cement sheet & pipe							

S. No.	Raw material	Nature	Unit	Consumption (TPD)		Source of Supply	Mode of Transport
				Existing quantity (for asbestos based product)	Proposed quantity (for asbestos & non-asbestos based product)		
1	Asbestos Fibre*	Solid	MTPD	37	55	imported directly from Countries like Russia, Brazil and Kazakhstan , etc.	By ship to the port and by Road from Port.
2	PVA Fibre**		MTPD	-	3.3	Imported	By Ship to port and by road from port.
3	Fly-Ash	Solid	MTPD	119	178	Fly Ash is obtained from Thermal Power Plants in Kota, Suratgarh and Dadri.	By Road
4	Cement	Solid	MTPD	238	358	Cement is purchased directly from manufactur ers majorly from Rajasthan only like Wonder, Lafarge & Ultra-tech cement.	By Road
5.	Others (Pulp / Dry Waste etc.)	Solid	MTPD	63	95	Purchased locally from Indian market	By Road
6.	Additives (Perform ance enhancer s) **	Liquid	MTPD	-	0.067	Purchased locally from Indian market	By Road

* used only in asbestos based cement sheet & pipe

** used only in non-asbestos based cement sheet & pipe

Waste generation & management

S.No	Type			Quantity	Management
1.	Liquid	Domestic		18 KLD	Treatment in existing STP capacity. Approximately 11 KLD for process water and 6 KLD for green belt development shall be catered to by the treated domestic wastewater.
		Effluent		No trade effluent generated	-
2.	Solid	Process solid Waste (Broken sheets & pipes)	Existing	1950 TPA	Total waste generated will be 2880 TPA. Hazardous waste as per HOWR, 2016. Asbestos containing residues The same are being and will be pulverized and recycled in the closed-circuit process.
			Proposed	930 TPA	The same is being and will be disposed of as per SWMR, 2016
		Municipal Solid waste	Existing	53 TPA	
			Proposed	15 TPA	
		dry waste from APCD	0.5 MT/Month		Mixed with water to form slurry, which will be recycled into the process.

The targeted production capacity after expansion of asbestos & non-asbestos cement sheets & pressure pipes will be 2,40,000 TPA. Also an additional one D.G. Set of capacity 330 KVA is proposed. The majority of raw material for the asbestos & nonasbestos cement sheets & pressure pipes will be sourced from open market and the majority of raw material is being/will be transported through Rail/Road.

The total water requirement of the project is as 90 m^3 /day (No change), out of which 75 m^3 /day of fresh water requirement will be obtained from the existing bore well and the remaining requirement of 15 m^3 /day recycled water will be met from the STP treated water.

The total water requirement of the project is as 90 m^3 /day (No change), out of which 75m^3 /day of fresh water requirement will be obtained from the existing bore well and the remaining requirement of 15 m^3 /day recycled water will be met from the STP treated water.

The total power requirement of the project is estimated as 1500 kVA (Existing 1500 Kva + Additional Nil) which is being / will be sourced from JVVNL GSS & D.G. Set (for back-up) {existing 660 KVA * 3 nos.; proposed 330 KVA *1 no}

Baseline Environmental Studies

Period	December 2018 to February, 2019
AAQ parameters at 8 locations	$PM_{2.5}$ = 26.3µg/m^3 to 51.0 µg/m^3 PM_{10}= 47.8 µg/m^3 to 94.7 µg/m^3 SO_2= 5.7 µg/m^3 to 11.7 µg/m^3 NOx = 11.8 µg/m^3 to 24.1 µg/m^3 CO = 0.7 mg/m^3 to 2.0 mg/m^3
AAQ modelling	PM_{10} = 7.20183 µg/m^3 SO_2 = 0.09227 µg/m^3 NOx = 6.8392 µg/m^3 CO = 0.00387 mg/m^3
Ground water quality at 8 locations	pH: 7.34 to 8.24, Total Hardness: 100 to 4250 mg/l, Chlorides: 60 to 5502 mg/l, Fluoride: 0.5 to 1.9 mg/l. Heavy metals are within the limits.
Surface water quality of study area could not be assessed as water bodies were found to be dry	-
Noise levels	51.3 to 68.2 dB (A) for daytime and 39 to 52 dB (A) for nighttime

The expansion project will be executed in the existing plant premises & additional land which is already acquired by the company and thus no R &R is involved.

It has been reported that a total of 2880 TPA of processed solid waste (Broken sheets & pipes), which will be pulverized and recycled in the closed-circuit process. 0.5 MT/Monty of dry waste from APCD recycled into the process. It has been envisaged that an area of 23,847 sq.m (33.0 %) land will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

It has been reported that the Consent to Operate from the Rajasthan State Pollution Control Board (RSPCB) has been obtained vide letter no. F(MUID)/JAIPUR(Sanganer)/144(1)/2018-2019/7337-7339, validity of CTO is up to 31.01.2023 and Authorization under Hazardous Waste (Management & Transboundary Movement) Rules, 2016, vide letter no. F(HSW) /Jaipur(Sanganer) /6(1)/2009-2010/5389-5391 dated 12.12.2018. The authorization is valid up to 31.07.2021.

The public hearing of the project was held on 06.11.2019 at 11:00 AM at Rajeev Gandhi Sewakendra, Village Dahmikalan, Bagru, Tehsil Sanganer, Jaipur (Raj) under the chairmanship of Shri Beerbal Singh, Additional District Magistrate (A.D.M), Jaipur City (North) for expansion of expansion of Asbestos & Non Asbestos Cement Sheets and Pressure Pipes from 1, 60,000 MTPA to 2, 40,000 MTPA. No written suggestion and/or complaint regarding the public hearing for the proposed expansion project was received either during the public hearing or in the RSPCB Office. The issues raised during public hearing are employment, water, CER and environmental management. An amount of Rs13.0 Lac (of total capital cost i.e. Rs. 13.0 Cr) has been earmarked for Corporate Environmental Responsibility based on public hearing issues.

The capital cost of the expansion project is Rs. 13.0 Cr and the capital cost for environmental protection measures is proposed as Rs. 78 Lac. The annual recurring cost towards the

environmental protection measures is proposed as Rs. 9.5 Lac/annum. The detailed CER plan has been provided in the EMP in its page No. 330 to 332. The total employment generation from the expansion is 100 persons (Existing 350 persons, Total employment after expansion will be 450 persons).

About, 11,583 sq.m. of the existing plant area (35,100 sq.m.) has already been developed under greenbelt & plantation. An area covering 23,847 sq.m. i.e. 33 % of the total area after expansion (72,263 sq.m.) will be developed under greenbelt as per CPCB/ MoEF&CC, New Delhi guidelines.

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

Name of the Consultant: Paramarsh Servicing Environment & Development (S.No. 147, List of ACOs with their Certificate / Extension Letter no. Rev. 3, Oct. 14, 2020).

Observations and Recommendations of the Committee (EAC meeting held during 24-25th February 2020)

The Committee after detailed deliberations deferred the proposal and sought the following additional information;

i. Asbestos concentration in the AAQ data to be furnished.

ii. CER list to be revised as most of the activities in CER table are related to CSR.

iii. Water quality data are wrong. PP was advised to redo water quality analysis.

iv. Plant layout is sketchy, and does not properly reflect the details Proper engineering drawing shall be furnished by the Project Proponent.

v. TOR point # 9 needs to be addressed properly as per requirement.

vi. Action Plan to achieve Zero Liquid Discharge shall be furnished.

24.4.2 Point wise reply of Additional details sought by the committee is as below:

ADS - I: Asbestos concentration in the AAQ data to be furnished.

Reply: Asbestos concentration in the ambient air quality at six locations in the study area of project site has been monitored during March, 2020 and the data submitted indicated that asbestos fibre concentration is detectable within the project site (varying between 0.001 - 0.002 fibre/cc) and is found to be BDL in the ambient air at the remaining locations in the study area.

ADS - II: CER list to be revised as most of the activities in CER table are related to CSR.

Reply: Revised Corporate Environmental Responsibility (CER) action plan has been prepared and submitted to address the issues raised during public hearing and socioeconomic survey carried out for the project in line with the MoEF&CC, Office Memorandum dated 1st May 2018. The activities proposed to be undertaken are to address issues related to scarcity of water resources, Tree plantation outside factory premises and drinking water.

ADS - III: Water quality data are wrong. PP was advised to redo water quality analysis.

Reply: Ground water quality was analysed again through another MoEF&CC recognized and NABL accredited monitoring laboratory and results submitted. Ground water quality has been reassessed at eight locations in the study area and analyzed. pH: 7.36 to 7.65, Total Hardness:

192 to 1015 mg/l, Chlorides: 215 to 4125 mg/l, Fluoride: 0.82 to 1.95 mg/l. Heavy metals are within the limits.

ADS – IV: Plant layout is sketchy, and does not properly reflect the details Proper engineering drawing shall be furnished by the Project Proponent

Reply: Engineering layout of plant showing various components including equipment, machinery and location and dimension of various plant services has been submitted.

ADS – V: TOR point # 9 needs to be addressed properly as per requirement

Reply: ARL Infratech Ltd., to address the conditions of ToR point no. 9 regarding Corporate Environment Policy, has prepared and submitted a comprehensive Corporate Environmental Policy.

ADS – VI: Action Plan to achieve Zero Liquid Discharge shall be furnished.

Reply: There is no effluent generation from the process as the water used in manufacturing process is carried along with the product. Treatment of domestic effluent is done in existing STP and treated water is reused into process and for greenbelt development. No wastewater will be discharged outside and optimum utilization of water resource will be continued action plan to achieve Zero Effluent Discharge (ZLD) along with water balance diagram has been submitted**.**

Observations and Recommendations of the Committee (EAC meeting held during 25-26th June, 2020)

The Committee after detailed deliberations deferred the proposal and recommended that the project proponent should resubmit the asbestos concentration levels in the ambient air, which shall be tested by NABL accredited laboratory.

24.4.3 The project proponent vide its letter dated 29th September, 2020 has submitted the Asbestos Fibre Concentration in ambient air monitored by NABL certified laboratory and uploaded the same on PARIVESH on 01/10/2020. The results of the report shows the concentration "Below Detection Level (BDL)" for all the samples.

Observations of the Committee

24.4.4 The Committee noted the following:

i. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues as well as action plan to address the issues raised during the public hearing and found satisfactory. The committee was also satisfied with the action taken report on the observed non-compliances (usage of PPE, green belt development and monitoring of particulate matter in work zone) reported in the certified compliance report of Regional Office.

ii. Additional information submitted by the project proponent was also found to be satisfactory, and addressing the concerns of the Committee.

Recommendations of the Committee

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

A. Specific conditions

i. Full face masks of reputed makes shall be provided to the workers in the plant.
ii. Asbestos fiber emission shall be restricted to 0.1 fiber/cc for eight-hour exposure.
iii. Occupational health studies for all staff once in six months shall be carried out.
iv. Fiber monitoring shall be carried out at the work zone and around the premises once in three months.
v. Insurance under PLI Act shall be obtained and a copy of the same shall be submitted to the concerned regulatory authorities.
vi. 100 % water consumed annually shall be harvested and recharged with monitoring facilities.
vii. The bag filters installed should achieve the norms of 0.1 fibre/cc.
viii. PM level shall be less than 30 mg/Nm^3

B. General conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

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

ii. The project proponent shall monitor fugitive emissions including asbestos fibre count in the plant premises at least once in every quarter through laboratories recognised under Environment (Protection) Act, 1986 or NABL accredited NIOH / ITRC / NCB or any other approved agency.

iii. The project proponent shall provide appropriate dust collectors to Fibre mill, Bag opening device (BOD), Cement and Fly ash silos. Bag filters followed by wet washer

shall be provided at automatic bag opening machine, bag shredder, fibre mill and to cement silo to collect the dust and recycle the same into the process.

iv. High Efficiency Particulate Air filters (HEPA) preceded by primary filters shall be installed on all asbestos contaminated areas.

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

vi. Provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.

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

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

ix. Channelize through hood with proper suction arrangement, bag filter and stack the fugitive emissions generated from hopper of Jaw crusher and pulverizer.

x. Separate truck parking area shall be provided and monitor vehicular emissions at regular interval.

xi. Bring the cement in closed tankers, fly ash in covered trucks and asbestos in impervious bags opening inside a closed mixer.

xii. The bags containing asbestos fibre including damaged bags, if any shall be stored in enclosed area.

xiii. Place the asbestos contaminated materials (non-encapsulated) for off-site removal in sealed packaging such as double sealed heavy duty (700 gauge) plastic bags, suitably labelled.

xiv. Empty and damaged fibre bags shall be shredded into fine particles in a bag-shredder and recycled into the process.

xv. AC sheets shall be piled in wet condition only.

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

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

a. All monitoring transfer points shall be connected to dust extraction system.

b. Leakages or dust from machines and ducts shall be plugged.

c. Floor shall be cleaned by vacuum cleaner only and the dust collected shall be reused in the process.

d. Enclosed belt conveyer shall be used instead of manual transportation of asbestos within the premises

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

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R. No. 913 (E) dated 24thOctober, 1989 as amended time to time(Asbestos) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

iii. Adhere to 'Zero Liquid Discharge'

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

v. Water meters shall be provided at the inlet to all unit processes in the plants.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

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

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

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

VII. Green Belt

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

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

VIII. Public hearing and Human health issues

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

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

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

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

v. The project proponent shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.

vi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

vii. The commitment made by the project proponent to the issues raised during Public Hearing shall be implemented by the proponent

IX. Corporate Environment Responsibility

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

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

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

X. Miscellaneous

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

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

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

iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

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

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

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

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

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

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

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

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

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

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

24.5 Expansion of Steel Billets/Ingots from 2,16,000 TPA to 3,08,000 TPA; TMT Bars, Rounds, Angles, Channels from 2,42,000 TPA to 2,82,000 TPA by **M/s Prime Steel Industries (P) Ltd.** located at Village- Bated, Barotiwala, Tehsil- Baddi, **District Solan, Himachal Pradesh** [Proposal No. IA/HP/IND/107048/2019, MoEF&CC File No. IA-J-11011/208/2019-IA-II(I)] **- Environment Clearance – regarding**

24.5.1 **M/s Prime Steel Industries (P) Ltd.** has made online application vide proposal no. IA/HP/IND/107048/2019 dated 20/10/2020 along with copy of EIA/EMP report and Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "B" of the schedule of the EIA Notification, 2006. However, due to the applicability of general condition i.e., existence of inter-state boundaries within 5km radius of the project site the project is being appraised at Central Level as Category 'A'.

Details submitted by the project proponent

24.5.2 The detail of the ToR accorded is furnished as below:

Date of application	Consideration	Details	Date of accord
03/06/2019	8th meeting held on 26/06/2019	Terms of Reference	07/08/2019

24.5.3 The project of M/s Prime Steels Industries (P) Ltd located in Bated, Barotiwala Village, Baddi Tehsil, Solan District, Himachal Pradesh State is for setting up of an expansion of production from 92000 TPA Steels and 40000 TPA TMT Bars, Rounds, Angles, Channels to 3,08,000 TPA steels to 2,82,000 TPA.

24.5.4 The Status of compliance of earlier EC is not applicable as the existing project is not covered under the provisions EIA Notification 1994 & 2006 and is in operation before advent of EIA Notification 2006. The consent to operate obtained for the existing unit has got expired and the renewal of the same is under process.

24.5.5 The proposed capacity for different products for site area as below:

S. No.	Product	Existing (TPA)	Proposed (TPA)	Total After Expansion (TPA)
1	Steel Billets/Ingots	92,000	2,16,000	3,08,000
2	TMT Bars, Rounds, Angles, Channels	40,000	2,42,000 [1,98,000 TPA out of captive consumption of proposed Billets 2,16,000 and 44,000 TPA out of captive consumption of existing surplus Billet 48200 TPA]	2,82,000

24.5.6 Project Proponent has reported that the total land required for the project is 49,210 m^2. No forestland is involved. The entire land has been acquired for the project. The Project site is located near Sirsa River (2.5 km SW). It has been reported that no water body/ water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

24.5.7 The topography of the area is flat and reported to lies between 30°54'36.03"N, 30°54'40.62"N" to 30°54'37.72"N, 30°54'3352"N Latitude 76°49'48.27"E, 76°49'55.90"E, to 76°49'57.14"E, 76°49'50.27"E Longitude in Survey of India topo sheets No H43K9, H43K13, H43E16 at an elevation of 440 m AMSL. The ground water table reported to ranges between 3.02-27.57m bgl.

24.5.8 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to corridor for Schedule-I fauna.

24.5.9 The raw materials and finished goods will be transported through trucks. The project is connected to MDR-7 via Baddi- Jhar-Majri Road which in turn is connected to SH-9. No additional road infrastructure will be required for transportation. The number of truck trips per day for raw material and finished product transportation will be approx. 102 trucks trips. The raw material source will be standard manufacturer or supplier. The raw material details are given as under:

S. No.	Raw Material	Existing	Proposed	Total	Source & Mode of transport
1.	MS Scrap (TPA)	96,840	2,27,360	3,24,200	From Domestic & as well as International Markets transported through covered trucks.
2.	Ferro Alloys (TPA)	2,040	4,790	6,830	

24.5.10 The targeted production capacity of the Steel Billets/Ingots and TMT Bars, Rounds, Angles, Channels is 3,08,000 TPA and 2,82,000 TPA respectively. The raw material for the plant would be procured from local and international market. The raw material will be transported through Roads in covered trucks.

24.5.11 The water requirement of the project is estimated at 29.4 m^3 /day. The daily requirement of water will be met through the Ground Water and I&PH supply. HPGWA application has been filed for existing Bore well and I&PH permission is obtained vide Lr. No. PSIL/20-21/1052/ dated 14th October, 2020.

24.5.12 The existing power requirement of the project is 19,991 MW and the additional requirement will be 3000 MW, therefore total requirement is estimated as 22,991 MW, which will be sourced HPSEBL.

24.5.13 Baseline Environmental Studies:

Period	October to December, 2019
AAQ parameters at 8 locations	$PM_{2.5}$ = 28.2 to 43.8 μg/m^3 PM_{10}= 66.3 to 89.2 μg/m^3 SO_2= 6.2 to 15.9 μg/m^3 NOx = 11.2 to 25.8 μg/m^3
AAQ modelling	PM_{10} = 2.48 μg/m^3
Ground water quality at 8 locations	pH 7.39 to 7.81, Total Hardness: 230 to 240 mg/l, Chlorides: 24.0 to 40.1 mg/l,Fluoride: 0.10 to 0.24 mg/l. Heavy metals are within the limits.
Surface water quality at 1 locations	pH: 7.79 to 7.82.; DO: 4.4 to 4.6 mg/l and BOD: 20 to 26.2 mg/l. COD from 110 to 120 mg/l.
Noise levels	46.1 dB (A) to 65.0 dB (A) dBA for daytime and 44.3 dB (A) to 54.0 dB (A) dBA for nighttime.

24.5.14 It has been reported that there is no R&R involved in the project.

24.5.15 The details of solid & hazardous waste generation have been shown in the table below

Waste	**Source**	**Quantity**	**Potential Impact**	**Management**
APCD Dust	Induction Furnace	0.09 TPD	Health Implication	Dust from bag filters shall be stored in a dumping pit of R.C.C. and disposed to designated TSDF site.
Sludge from Domestic Waste Water Treatment	STP	0.009 TPD @40gm per capita per day	No adverse environmental impact except little odor nuisance.	The sludge from waste water treatment systems shall be composted and used as manure in horticulture.
Runner/Riser	From Rolling Mill	92.0 TPD	No Impact, It is a saleable material.	
Furnace Slag	Induction Furnace	48.6 TPD	No adverse impact. It will be used in road making	Slag produced from manufacturing process as by-product will be periodically tapped and left

Waste	Source	Quantity	Potential Impact	Management
			and land filling.	to solidify. The slag will be then crushed and iron particles are taken out through the process of magnetic separation. Mill scales are either sold in the market or used back in I.F.
Used Oil	DG sets	0.05 Kl/A	possibility of soil and water contamination due to spillage	
MSW from every day & Domestic	Employees	0.09 TPD @400gm per capita per day	Hazardous Gas Emission. Natural Habitat Degradation	Municipal solid waste due to everyday sweeping and domestic activities will be collected in bins.

24.5.16 It has been reported that the Consent to Operate from the HP State Pollution Control Board obtained vide Consent No.CTO/BOTH/RENEW/RO/2019/23876 Valid from 01.04.2009 to 31.03.2020. Renewal of CTO is applied.

24.5.17 The Public hearing of the project was held on 29-July-2020 in Industry premises under the chairmanship of Additional Deputy Commissioner cum Chairman for production of 3,08,000 TPA of steels Billets/Ingots and 2,82,000 TPA of TMT Bars, Rounds, Angles, Channels. The issues raised during public hearing are Employment and air pollution. An amount of 25 Lakh has been earmarked based on Public hearing issues.

24.5.18 The capital cost of the project is Rs 65 Crores and the capital cost for environmental protection measures is proposed as Rs. 151 Lakh. The annual recurring cost towards the environmental protection measures is proposed as Rs 11.6 Lakh. The estimated manpower requirement after the expansion shall be 248.

24.5.19 The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

Sl. No.	Description of Item	Capital Cost] (Rs. In Lacs)	Recurring Cost (Rs. In Lacs)
1.	Pollution Control during construction stage	5.0	---
2.	Air Pollution Control (Installation of APCD)	95.0	5.0
3.	Water Pollution Control/ STP Upgradation	15.0	1.5
4.	Green Belt Development	10.0	3.0
5.	Noise Pollution Control	1.0	0.1
6.	Solid Waste Management	5.0	0.5

Sl. No.	Description of Item	Capital Cost] (Rs. In Lacs)	Recurring Cost (Rs. In Lacs)
7.	Environment Monitoring and Management	5.0	0.5
8.	Occupational Health & Safety and Risk Management	5.0	0.5
9.	RWH	5.0	0.5
10.	Miscellaneous	5.0	---
Total		**151.0**	**386**

24.5.20 Greenbelt will be developed in 16411.0 m^2 which is about 33% of the total acquired area. A 100 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 1500 trees per hectare. Total no. of 2460 saplings will be planted and nurtured in 16411.0 m^2 in three years.

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

24.5.22 Name of the EIA consultant: Chandigarh Pollution Testing Laboratory – EIA Division [S.No. 91, List of ACOs with their Certificate / Extension Letter no. Rev. 3, Oct. 14, 2020].

Observations of the Committee

24.5.23 The Committee noted the following:

i. There is no valid CTO available with PP.
ii. Area for green belt is not enough as per layout. The layout also does not permit uniform green belt all around the plant boundary.
iii. Certified compliance status of existing CTO conditions from the Himachal Pradesh Pollution Control Board has not been furnished.
iv. TOR #9 i.e., Corporate Environment Policy has not addressed in EIA Report.
v. Plant layout is congested. Total land is 4.921 ha. All the envisaged units maintaining safety norms i.e., IF, LF, CC, RM of Channels and Angles and also wire rod mill in the instant proposal under consideration.
vi. EIA report does not address the methodology adopted for sample collection location selection criteria, data interpretation and impact assessment.

Recommendations of the Committee

24.5.24 In view of the above, the Committee, after detailed deliberations, recommended to return the proposal in its present form.

24.6 Expansion of White Cement Production Capacity from 0.56 Million TPA to 1.40 Million TPA and Captive Power Plant Capacity from 7.5 MW to 33.5 MW of **M/s. UltraTech Cement Limited** (Unit: Birla White) located at Rajashree Nagar, Village: Kharia Khangar, Tehsil: Bhopalgarh, **District: Jodhpur, Rajasthan** [Online Proposal No. IA/WB/IND/175584/2020; MoEF&CC File No. J-11011/170/2012-IA-II(I)] – **Extension of validity of Environment Clearance** – regarding.

24.6.1 **M/s. UltraTech Cement Limited** (Unit: Birla White) has made online application vide proposal no. IA/WB/IND/175584/2020 dated 26/09/2020 along with Form 6 and sought for validity extension of the Environment Clearance accorded by the Ministry vide letter no. J-11011/170/2012-IA.II(I) dated 05/03/2014.

Details submitted by the project proponent

24.6.2 M/s. UltraTech Cement Limited has been granted Environment Clearance by the Ministry for a project titled "Expansion of White Cement Production Capacity from 0.56 Million TPA to 1.40 Million TPA and Captive Power Plant Capacity from 7.5 MW to 33.5 MW of M/s. UltraTech Cement Ltd. (Unit: Birla White) located at Rajashree Nagar, Village: Kharia Khangar, Tehsil: Bhopalgarh, District: Jodhpur, Rajasthan" vide letter no. 11011/170/2012-IA.II(I) dated 05/03/2014. The amendment was provided on 11/05/2017 w.r.t. specific condition no. (viii). The proposal involves Expansion of White Cement Production Capacity from 0.56 Million TPA to 1.40 Million TPA and Captive Power Plant Capacity from 7.5 MW to 33.5 MW.

24.6.3 The activity envisaged above could not be taken up within the validity period of EC in view of unfavorable demand of white cement due to financial uncertainty in real estate sector/ construction sector. Now, looking in to the good demand of White Cement in the region, company intended to implement the above mentioned project.

24.6.4 Further, the project proponent has provided the following status of the project:

- As the plant area falls in the over exploited area & water is major constraint for the project.
- Company has amended the existing Environmental Clearance for shifting the ground water by surface water in 2017.
- Now, company has done agreement for surface water through PHED department, Jodhpur (Rajasthan) on 11th May, 2019 for 1600 m^3/day surface water required for the project.
- Dedicated water supply pipeline from PHED, Jodhpur to Plant Site (105 km) & water treatment plant has been constructed and the infrastructure development cost of Rs. 4005.61 lacs have been deposited to PHED, Jodhpur (Rajasthan).

24.6.5 In view of the above, the commissioning of the project may not be completed within E.C validity period of 04/03/2021 due to above reasons. It is proposed to implement the balance facilities and activities related to the expansion project within approx. 3.5 years (Till Feb., 2024). Therefore, M/s. UltraTech Cement Limited is seeking validity extension of existing Environmental Clearance for above project proposal for further period of 3 years as per clause no: 9 of EIA Notification 2006 for completion of project.

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

24.6.7 Name of the EIA consultant: J.M. EnviroNet Pvt. Ltd. [S.No. 38, List of ACOs with their Certificate / Extension Letter no. Rev. 3, Oct. 14, 2020].

<u>Observations of the Committee</u>

24.6.8 The Committee noted the following:

i. Project proponent was unable to implement the facilities envisaged in the EC dated 05/03/2014 due to absence of requisite water supply and due to unfavorable market demand for white cement.

ii. Project will be completed by February, 2024 as per the implementation schedule furnished.

Recommendations of the Committee

24.6.9 In view of above and after deliberations, the Committee recommended to extend the validity of the Environment Clearance for a period of three years beyond 04/03/2021, i.e., from 05/03/2021 to 04/03/2024 subject to environmental safeguards prescribed in the EC dated 05/03/2014.

24.7 Transfer of 18 MW Captive Power Plant (CPP) to M/s JSW Energy Ltd from the integrated cement plant (Clinker- 2.5 MTPA; Cement – 4.8 MTPA) of **M/s JSW Cement Ltd** located at village Gudivemula, **District Kurnool, Andhra Pradesh** [Online Proposal No. IA/AP/IND/168526/2020; MoEF&CC File No. J11011/889/2007-IA.II(I)] - **Amendment in Environmental Clearance**- regarding.

24.7.1 The aforesaid proposal was earlier considered in the 22nd meeting of the Re-constituted EAC (Industry-I) held during 26 – 28th August, 2020 wherein Committee made its observations and recommended to return the proposal in present form due to following:

i. PP shall obtain permission from concerned authority to retain captive status of CPP while ownership rests with the third party.

ii. On receipt of the above, PP shall apply for amendment of Cement Plant EC and simultaneously for EC from concerned competent authority for the 18 MW CPP.

24.7.2 Based on the EAC recommendations, the file was processed. The Competent Authority has directed to refer back the proposal to with a request to revisit their recommendations as the proposal is for part transfer of 18 MW CPP to M/s. JSW Energy Limited.

24.7.3 Accordingly, the proposal was referred back to EAC. The salient features of the proposal are as follows:

M/s. JSW Cement Limited has made an online application vide proposal no. IA/AP/IND/168526/2020 dated 17/08/2020 along with Form 4 and sought for amendment in the Environment Clearance accorded by the Ministry vide letter no. J-11011/889/2007-IAII(I)dated 09/03/2016 regarding the partial transfer of 18 MW CPP in the name of M/s. JSW Energy Limited.

JSW Cement Limited (formerly M/s Gayathri Cements), village Gadivemula, Distt. Kurnool, Andhra Pradesh has obtained Environment Clearance for manufacture of 2.0 MTPA Clinker, 1.1 MTPA Portland Slag cement & 1.1 MTPA Ordinary Portland Cement and setting up of 36 MW (2x18 MW) Captive Power Plant from MoEF&CC vide letter J-11011/889/2007-IA II (I) dated 25/08/2008. The EC was subsequently amended for expansion of cement grinding unit from 2.2 MTPA to 4.8 MTPA vide letter ref. J-11011-/159/2010-IA-II (I) dated 13/05/2011 and again for enhancement of clinker production capacity from 2.0 to 2.5 MTPA and change in product mix from 4.8 MTPA (1.1 MTPA OPC & 3.7 MTPA PSC) to 4.8 MTPA (1.1 OPC + 3.7 PSC/GGBS) vide letter ref. J-11011/889/2007-IA-II (I) dated 09/03/2016.

S. No.	EC Letter No.	Dated	Capacities mentioned in EC
1.	F.No J-11011/889/2007-IA II (I)	25/08/2008	Clinker – 2.0 MTPA, PSC – 1.1 MTPA, OPC – 1.1 MTPA, CPP – 36 MW
2.	F.No J-11011/159/2010-IA-II (I)	13/05/2011	Cement Grinding - 4.8 MTPA

3.	F.No J-11011/889/2007-IA II (I)	09/03/2016	Clinker – 2.5 MTPA, Cement / GGBS – 4.8 MTPA, CPP – 36 MW

Reason for transfer:

Now, JSW Cement Limited intends to transfer 1 x 18 MW Captive Power Plant to JSW Energy Limited, who have expertise and technical capabilities in the construction, operation and maintenance of Power Plants. The status of the power plant will remain as a captive power plant.

Land requirement: 1x18 MW Captive Power Plant is being set up in 10 ha of land available within JSW Cement plant complex.
Project Cost: Total Project Cost for 1x18 MW CPP is **INR 97 Crore**. A budget of **INR 8.25 Crore** as capital expenditure has been envisaged for Environment protection. Expenditure towards ESC and CSR shall be the responsibility of JSW Cement Limited.
Production capacity: Total 18 MW (**1x18 MW)** Captive Power Plant.
Products: Electricity.
Raw Materials: Coal and Water
Water Requirement: Total water requirement for the proposed project is **300 m^3/day** which will be supplied by M/s JSW Cement Limited from its existing bore wells with due permission from the competent authority.

Pollution Control Measures:
Air Pollution Control: Gaseous emissions will be controlled by installing air pollution control equipments such as Bag House, ESPs, Bag Filters etc. CFBC Boiler will be installed in CPP which is a proven technology for controlling SOx and NOx emissions from the Power Plants. Continuous lime injection will be done in Boiler to reduce SOx contents in the flue gases. Dust suppression will be done by water sprinkling to control fugitive emissions due to material handling and transportation activities. Water sprinkling will be done along the haul roads to control dust arising from vehicular movement. Suitable type and capacities of bag filters will be envisaged for de-dusting at coal handling points.

Water Pollution Control: Domestic waste water 4 m^3/day will be disposed in septic tanks and soak pits. Approx. 84 M^3/day of waste water will be generated from CPP which will be suitably treated and the treated water will be used for dust suppression, cement plant cooling and spraying on coal stock pile.

Noise Pollution Control: Noise attenuating devices such as silencers, enclosures etc. will be provided wherever feasible, on all noisy equipment to limit the noise level within permissible standards. Ear muffs/ear plugs will be provided to workers working in high noise areas.

Solid waste management: Dust from APC devices will be automatically recycled in process. Fly ash/ bottom ash generated from CPP will be used for PPC/ Composite cement manufacturing. Sludge generated from ETP will be sent to the nearest TSDF for further disposal.
Green Belt: Green belt will be developed in 33% of the total plant area. Polyculture plantation with native species will be preferentially planted.
Benefits: The proposed project will provide direct & indirect employment opportunities to

the local people of the area. Further, the project will also improve the socio-economic conditions of the people living in the vicinity of the project.

Configuration Changes after EC transfer:

Production capacities of JSW Cement Ltd. after EC transfer to JSW Energy Ltd.:

S.No	Details	Capacity before EC transfer	Capacity after EC transfer	Remarks
1	Clinker Production (MTPA)	2.50	2.50	No Change
2	Cement Production (MTPA)	4.80 (1.1 OPC + 3.7 PSC/GGBS)	4.80 (1.1 OPC + 3.7 PSC/GGBS)	No Change
3	Captive Power Plant (MW)	2 x 18	1 x 18	Partial transfer of 1 x 18 MW CPP to JSW Energy Ltd

Production capacity of JSW Energy Ltd. after EC transfer:

S.No	Details	Capacity before EC transfer	Capacity after EC transfer	Remarks
1	Captive Power Plant (MW)	-	1 x 18	Partial transfer of 1 x 18 MW CPP from JSW Cement Ltd

Raw material Requirement of JSW Cement Ltd. after EC transfer to JSW Energy Ltd:

S. No.	Raw material	Requirement before EC transfer (MTPA)	Requirement after EC transfer (MTPA)	Remarks
1.	Limestone	3.75	3.75	No Change
2.	Aluminous Laterite	0.019	0.019	No Change
3.	Flue Dust	0.077	0.077	No Change
4.	B.F Slag	3.70	3.70	No Change
5.	Gypsum	0.125	0.125	No Change
6.	Coal	0.375	0.375	No Change
7.	Pet Coke	0.24	0.24	No Change
8.	Coal requirement of Power Plant	0.18 – Imported Coal	0.09 – Imported Coal	Decrease in 0.09 MTPA imported Coal which is required by JSW Energy Ltd.

Other resource requirements of JSW Cement Ltd. after EC transfer to JSW Energy Ltd.:

S.No	Resource	Requirement before EC transfer (MTPA)	Requirement after EC transfer (MTPA)	Remarks
1	Power	40 MW sourced from State Grid	40 MW (from State Grid & Power Plant of JSW Energy Ltd.)	Partial Change in source
2	Water	4500 m^3/day (3000 m^3/day from ground water + 1500 m^3/day from harvested rainwater stored in mine pits)	4200 m^3/day (2700 m^3/day from ground water + 1500 m^3/day from harvested rainwater stored in mine pits)	Decrease in 300 m^3/day water which is required by JSW Energy Ltd.

Raw material Requirement of JSW Energy Ltd. after EC Transfer:

S. No.	Raw material	Requirement before EC transfer (MTPA)	Requirement after EC transfer (MTPA)	Remarks
1.	Coal requirement of Power Plant	-	0.09 Imported Coal	Required for generation of 18 MW power

Other resource requirements of JSW Energy Ltd. after EC Transfer:

S.No	Resource	Requirement before EC transfer (MTPA)	Requirement after EC transfer (MTPA)	Remarks
1	Water	-	300 m^3/day from groundwater	Ground water will be sourced from existing bore wells of JSW Cement Ltd.
2	Limestone	-	0.009 MTPA	From JSW Cement

Status of Implementation:

JSW Cement Limited has implemented Clinker - 2.5 MTPA, Cement / GGBS – 4.8 MTPA and CPP – 18 MW and has obtained Consent to operate from Andhra Pradesh Pollution Control Board (APPCB) for the same.

Change in configuration after EC amendment:

Now M/s JSW Cement Limited has proposed partial transfer of CPP – 18 MW EC to M/s JSW Energy Limited for which EC amendment application has been filed.

After EC amendment, M/s JSW Cement Limited EC will be having Clinker – 2.5 MTPA, Cement/GGBS – 4.8 MTPA, CPP 18 MW and M/s JSW Energy Limited will have CPP – 18 MW.

Litigation:

There is no litigation related to environment and pollution on related to the proposal under consideration.

Observations of the Committee

24.7.4 The Committee noted the following:

i. The Committee took cognizance of the observation of the Ministry referred at para no. 24.7.2.

ii. The Committee also took note of the approach adopted by EACs of other sectors for the proposals involving part transfer of Environment Clearance.

iii. Project proponent has not submitted the plot plan indicating the existence of M/s. JSW Cement Limited and M/s. JSW Energy Limited with physical demarcation. Besides, the project proponent has also not segregated the environment clearance conditions pertaining to cement plant and power plant separately for requisite due diligence by the EAC.

Recommendations of the Committee

24.7.5 In view of the foregoing and after deliberations, the Committee deferred the proposal and sought following additional information:

i. Revised plot plan of M/s. JSW Cement Limited and M/s. JSW Energy Limited indicating the physical demarcation.

ii. Each and every EC condition mentioned in the existing EC has to be complied either by one of the two units or by both. The PP should develop a matrix indicating each and every condition of the existing EC along with the name of the unit (or both the units if that condition is to be complied by both jointly) that will be responsible for the compliance of that condition. This should be mutually agreed upon by both the units in the form of an undertaking on a non-judicial stamp paper signed by authorized signatory of Boards of M/s. JSW Cement Limited and M/s. JSW Energy Limited for complying with the environment clearance conditions. Further, the environment clearance conditions pertaining to cement plant and power plant shall be segregated and submitted. These documents should be submitted to MoEF&CC for putting before the EAC for due diligence and final recommendation.

24.8 Proposed Integrated Steel Plant with Production Capacity of 0.548 MTPA {TMT / Rebar (0.3 MTPA), Wire Road (0.2 MTPA) and Billets (0.048 MTPA)} along with 35 MW Captive Power Plant by **M/s. Supershakti Metaliks Limited** at Village: Mandalpur, Block: Jamuria, **District: Paschim Burdwan, West Bengal**. [Online Proposal No. IA/WB/IND/177110/2020; File No. IA-J-11011/70/2019-IA-II(I)] – **Amendment in ToR**– regarding.

24.8.1 **M/s. Supershakti Metaliks Limited** has made application vide online proposal no. IA/WB/IND/177110/2020 dated 01/10/2020 along with the Form 3, revised Form-I, copy of pre-feasibility report and sought for amendment in the ToR accorded by the Ministry vide letter no. IA-J-11011/70/2019-IA-II(I) dated 30/04/2019.

Details submitted by the project proponent

24.8.2 M/s. Supershakti Metaliks Limited was accorded Terms of Reference vide letter no. IA-J-11011/70/2019-IA-II(I) dated 30/04/2019 for the project titled "Proposed Integrated Steel Plant with Production Capacity of 0.548 MTPA {TMT / Rebar (0.3 MTPA), Wire Road (0.2 MTPA) and Billets (0.048 MTPA)} along with 35 MW Captive Power Plant by M/s. Supershakti Metaliks Limited at Village: Mandalpur, Block: Jamuria, District: Paschim Burdwan, West Bengal."

24.8.3 The amendment sought by the project proponent has reported that as per the earlier submitted proposal, the company will have to purchase sponge iron from outside to the tune of 1,45,300 Tonnes per annum i.e. 440 TPD. Hence management has decided to enhance the capacity of DRI unit from 2X 500TPD to 2X900 TPD and thereafter the total DRI production will increase from 3,30,000 TPA to 5,94,000 TPA. To consume the quantity of additional dolochar generated, the capacity of CFBC boiler will be increased from 90 TPH to 220 TPH and with the change in configuration of DRI, WHRB will increase from 2 x 60 TPH to 2 x 80 TPH, thus the amendment is being proposed in CPP as well and the capacity will increase from 35 MW to 76 MW. In addition to the change in configuration, the company is desirous of change in name of the proposal as well because in the earlier submitted proposal the capacity of final product was mentioned but now the company is desirous of mentioning the capacity of plant instead of the product.

24.8.4 Desired amendments have been highlighted

S. No.	Name of the Units with Product	Capacity with configuration (Mentioned in ToR Letter dated 30th April, 2019)	After Amendment Capacity with configuration	Remarks
1	DRI Plant (Sponge Iron)	3,30,000 TPA (2 x 500 TPD DRI Plant)	**5,94,000 TPA (2 x 900 TPD)**	Capacity increase
2	Steel Melting Shop (Billets)	5,83,500 TPA {Induction Furnace 4,75,000 TPA (8 x 20 T), 1,08,500 TPA EAF (1 x 35 T), Ladle Furnace (1x20 T + 1x35 T) & Strand CCM Caster (2x2)}	5,83,500 TPA {Induction Furnace 4,75,000 TPA (8 x 20 T), 1,08,500 TPA EAF (1 x 35 T), Ladle Furnace (1x20 T + 1x35 T) & Strand CCM Caster (2x2)}	No Change
3	Rolling Mill (Rebar/TMT)	3,00,000 TPA	3,00,000 TPA	No Change
4	Wire Rod Mill (Wire Rod)	2,00,000 TPA	2,00,000 TPA	No Change
5	Captive Power Plant (Power)	35 MW (2 x 60 TPH WHRB & 1 x 90 TPH CFBC)	**76 MW (2 x 80 TPH WHRB & 1 x 220 TPH**	Capacity increase

S. No.	Name of the Units with Product	Capacity with configuration (Mentioned in ToR Letter dated 30th April, 2019)	After Amendment Capacity with configuration	Remarks
			CFBC)	

24.8.5 In addition to the change in configuration, the company is desirous of change in subject matter of the proposal as well because in the earlier submitted proposal the capacity of final product was mentioned but now the company is desirous of mentioning the capacity of plant instead of the product.

Present name of Project Proposal	After amendment name of project proposal
Proposed Integrated Steel Plant with Production Capacity of 0.548 MTPA {TMT / Rebar (0.3 MTPA), Wire Rod (0.2 MTPA) and Billets (0.048 MTPA)} along with 35 MW Captive Power Plant at Village: Mandalpur, Block: Jamuria, District: Paschim Bardhaman (West Bengal)	Proposed Integrated Steel Plant; Sponge Iron Plant (5,94,000 TPA), Steel Melting Shop (5,83,500 TPA), TMT Rolling Mill (3,00,000 TPA), Wire Rod Mill (2,00,000 TPA) & Captive Power Plant (76 MW) including Waste Heat Recovery Boiler (WHRB) at Village Mandalpur, Block Jamuria, District Paschim Bardhaman (West Bengal)

24.8.6 Details as per the granted ToR/EC vis-à-vis proposed changes

S. No.	S. No. in issued ToR Letter	As in issued ToR vide letter no. J-11011/70/2019-IA.II (I) dated 30th April, 2019	After Proposed amendment in ToR Letter	Remarks
1	2.0	M/s. Supershakti Metaliks Limited proposes to install a new Integrated Steel plant with **capacity of 0.548 MTPA {TMT / Rebar (0.3 MTPA), Wire Rod (0.2 MTPA) and Billets (0.048 MTPA)} along with 35 MW Captive Power Plant**at Village: Mandalpur, Block: Jamuria, District: Paschim Burdwan (West Bengal). It is proposed to set up plant based on Direct Reduced Iron Technology (DRI).	M/s. SupershaktiMetaliks Limited proposes to install Integrated Steel Plant; **Sponge Iron Plant (5,94,000 TPA), Steel Melting Shop (5,83,500 TPA), TMT Rolling Mill (3,00,000 TPA), Wire Rod Mill (2,00,000 TPA) & Captive Power Plant (76 MW) including Waste Heat Recovery Boiler (WHRB)**at Village Mandalpur, Block Jamuria, District Paschim Bardhaman (West Bengal). It is proposed to set up plant based on Direct Reduced Iron Technology (DRI).	Earlier the capacity of final product was mentioned but now the company is desirous of mentioning the capacity of plant instead of the product.
2	6.0	Total project cost is approx. INR **1616.22 Crores**. Proposed employment generation from proposed project will be 1400 direct employments and 1500 indirect employments.	Total project cost is approx. **INR 1719.43 Crores**. Proposed employment generation from proposed project will be 1400 direct employments and 1500 indirect employments.	Increase in cost
3	7.0	The targeted production capacity of the Integrated Steel Plant is **0.548 MTPA**	The targeted production capacity of the Integrated Steel Plant is; **Sponge Iron Plant (5,94,000 TPA), Steel Melting**	Capacity of products viz., TMT/ Rebar,

<table>
<tr><th>S. No.</th><th>S. No. in issued ToR Letter</th><th>As in issued ToR vide letter no. J-11011/70/2019-IA.II (I) dated 30th April, 2019</th><th>After Proposed amendment in ToR Letter</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>{TMT / Rebar (0.3 MTPA), Wire Rod (0.2 MTPA) and Billets (0.048 MTPA)} along with 35 MW Captive Power Plant. Iron Ore/Pellets will be procured from Iron ores of Orissa & Jharkhand and Pellets from local plant located in nearby vicinity through Rail & Road, Dolomite will be procured from Rajasthan & Madhya Pradesh by Road, Lime will be procured from Katni (M.P.) by road. The proposed capacity for different products for new site area is as below:
<table>
<tr><th>Name of Unit</th><th>Proposed Capacity</th></tr>
<tr><td>TMT / Rebar (MTPA)</td><td>0.3</td></tr>
<tr><td>Wire Rod (MTPA)</td><td>0.2</td></tr>
<tr><td>Billets (MTPA)</td><td>0.048</td></tr>
<tr><td>CPP (MW)</td><td>35</td></tr>
</table></td><td>Shop (5,83,500 TPA), TMT Rolling Mill (3,00,000 TPA), Wire Rod Mill (2,00,000 TPA) & Captive Power Plant (76 MW) including Waste Heat Recovery Boiler (WHRB).Iron Ore/Pellets will be procured from Iron ores of Orissa & Jharkhand and Pellets from local plant located in nearby vicinity through Rail & Road, Dolomite will be procured from Rajasthan & Madhya Pradesh by Road, Lime will be procured from Katni (M.P.) by road. The proposed capacity for different products for new site area is as below:
<table>
<tr><th>Name of Unit (Product)</th><th>Proposed Capacity</th></tr>
<tr><td>DRI Plant (Sponge Iron)</td><td>5,94,000 TPA
(2 x 900 TPD)</td></tr>
<tr><td>Steel Melting Shop (Billets)</td><td>5,83,500 TPA
{Induction Furnace 4,75,000 TPA
(8 x 20 T), 1,08,500 TPA EAF (1 x 35 T), Ladle Furnace (1x20 T + 1x35 T) & Strand CCM Caster (2x2)}</td></tr>
<tr><td>Rolling Mill (Rebar/TMT)</td><td>3,00,000 TPA</td></tr>
<tr><td>Wire Rod Mill (Wire Rod)</td><td>2,00,000 TPA</td></tr>
<tr><td>Captive Power Plant (Power)</td><td>76 MW
(2 x 80 TPH WHRB &
1 x 220 TPH CFBC)</td></tr>
</table></td><td>wire rod and billet will remain same as proposed earlier only change in capacity of power from 35 MW to 79 MW.</td></tr>
<tr><td>4</td><td>8.0</td><td>The electricity load of 105.4MW will be procured from proposed CPP {35 MW}and State Grid.</td><td>The power requirement of the project is estimated as 110 MW and will be met from proposed CPP {76 MW} and State Grid.</td><td>Increase in capacity of DRI thus increase in power consumption as well.</td></tr>
</table>

S. No.	S. No. in issued ToR Letter	As in issued ToR vide letter no. J-11011/70/2019-IA.II (I) dated 30th April, 2019	After Proposed amendment in ToR Letter	Remarks
5.	9.0	Proposed raw materials required for the proposed project are Iron Ore/Pellets will be sourced from Iron ores from Orissa & Jharkhand and Pellets from local plant located in nearby vicinity; Dolomite from Rajasthan & Madhya Pradesh; **Purchased DRI from Nearby DRI plant**; Pig Iron from Sail Plants Ltd. and other suppliers of repute; Purchased Scrap Imported from South Africa; Lime will be sourced from Katni (MP); Flour spar from Local supplier; Ferro alloys from Ferro alloys plant located in near vicinity. Fuel will be Indian & imported coal, sourced from Eastern Coal Fields Limited (ECL) & Adani Global Pvt. Limited, Sawaogi Global Pvt. Limited, Swiss Singapore Overseas etc. respectively.	Proposed raw material and fuel requirement for project Iron Ore/Pellets will be sourced from Iron ores from Orissa & Jharkhand and Pellets from local plant located in nearby vicinity; Dolomite from Rajasthan & Madhya Pradesh; Pig Iron from Sail Plants Ltd. and other suppliers of repute; Purchased Scrap Imported from South Africa; Lime will be sourced from Katni (MP); Flour spar from Local supplier; Ferro alloys from Ferro alloys plant located in near vicinity. Fuel will be Indian & imported coal, sourced from Eastern Coal Fields Limited (ECL) & Adani Global Pvt. Limited, Sawaogi Global Pvt. Limited, Swiss Singapore Overseas etc. respectively.	As per the earlier submitted proposal, the company will have to purchase sponge iron from outside to the tune of 1,45,300 Tonnes per annum i.e. 440 TPD. After proposed amendment, the capacity of DRI unit will enhance from 2X 500TPD to 2X900 TPD and thereafter the total DRI production will be 5,94,000 TPA
6	10.0	Water Consumption for the proposed project will be **4280 KLD**, which will be sourced from **Ajay River** and no waste water will be discharged from the steel plant. Domestic & Industrial waste water will be treated CETP Plant and the treated waste water will be utilized for greenbelt development/ plantation.	Water Consumption for the proposed project will be **6230 KLD**, which will be sourced from Surface Water **(Damodar River**) and no waste water will be discharged from the steel plant. Domestic & Industrial waste water will be treated in STP and ETP Plant and the treated waste water will be reused in plant processes and also utilized for greenbelt development & plantation.	Due to increase in water requirement in DRI and power plant thereby increase in water requirement. Availability of water from Damodar River.
7	13.0	Though only one site chosen, the Committee deliberated on the issue and found proposed site is suitable due to its proximity towards railway sliding, domestic coal availability and to draw water from Ajay river only for industrial purposes.	Though only one site chosen, the Committee deliberated on the issue and found proposed site is suitable due to its proximity towards railway sliding, domestic coal availability and to draw water from Damodar river only for industrial purposes.	Surface water availability from Damodar river

24.8.7 PP has reported that the proposal is for amendment in ToR and the facilities as mentioned in ToR will be commenced after obtaining EC and other statutory requirements.

24.8.8 PP has reported that there is no court case or violation under EIAs Notification to the project or related activity.

24.8.9 Name of the EIA consultant: J.M. EnviroNet Pvt. Ltd. [S.No. 38, List of ACOs with their Certificate / Extension Letter no. Rev. 3, Oct. 14, 2020].

Observations of the Committee

24.8.10 The Committee noted the following:

i. TOR was issued on 30/04/2019 for DRI production of 330000TPA.
ii. PP wants to increase the production of DRI to 594000 by changing the size of Kiln from 500 TPD to 900 TPD.
iii. Additional char will be used in CFBC.
iv. Water withdrawal shall be from Damodar and not from Ajay River.
v. Railway siding has been included.
vi. Specific water consumption shall be 0.361 cum/t of product.
vii. Additional land is not required for proposed expansion of DRI plant.

Recommendations of the Committee

24.8.11 In view of the foregoing and after deliberations, the Committee recommended for amendment as mentioned above in the ToR dated 30/04/2019.

24.9 Proposed 3 MMTPA crude steel plant and Captive power generation of 88.6 MW plant by **M/s. AP High Grade Steels Ltd** located at Sunnapurallapalli and Peddandluru Villages, Jammalamadugu Mandal, **YSR Kadapa District, Andhra Pradesh**. [Online Proposal No. IA/AP/IND/178487/2020; File No. IA-J-11011/70/2020-IA-II(I)] – **Amendment in ToR**– regarding.

24.9.1 **M/s. AP High Grade Steels Ltd** has made application vide online proposal no. IA/AP/IND/178487/2020 dated 10/10/2020 along with the Form 3, revised Form-I, copy of pre-feasibility report and sought for amendment in the ToR accorded by the Ministry vide letter no. IA-J11011/70/2020-IA.II(I) dated 09/07/2020.

Details submitted by the project proponent

24.9.2 M/s. AP High Grade Steels Ltd was accorded Terms of Reference vide letter no. IA-J11011/70/2020-IA.II(I) dated 09/07/2020 for the project titled "Proposed 3 MMTPA crude steel plant and Captive power generation of 88.6 MW plant by M/s. AP High Grade Steels Ltd located at Sunnapurallapalli and Peddandluru Villages, Jammalamadugu Mandal, YSR Kadapa District, Andhra Pradesh."

24.9.3 The amendment sought by the project proponent has reported that the final DPR submitted by M/s. MECON has revised the estimated capital cost of the project from Rs. 20098.56 Crores to Rs. 16986 Crores and the captive power generation total capacity from 88.6 MW to 84.7 MW due to minor changes in the plant configuration. Also, to inform that the Sy.no 391/1 in Peddandluru village is excluded from the project area as it was mentioned inadvertently. However, there is no change in the steel production capacity. It may be noted

that the entire captive generation is due to implementation of Top pressure recovery turbine, waste heat recovery and combustion of BF, BOF gases. The captive power generation details are as follows;

As per Approved ToR	Amendment Sought
Total - 88.6 MW	**Total - 84.7 MW**
Steam Turbine Generator (STG) at power blowing station **3 x 18 MW** – 2 Working + 1 Standby	Steam Turbine Generator (STG) at power blowing station - **3 x 15 MW** – 2 Working + 1 Standby
Back Pressure Turbine Generator (BPTG) at CDCP - **1 x 10.6 MW**	Back Pressure Turbine Generator (BPTG) at CDCP - **1 x 12.7 MW**
Top Recovery Turbine Generator (TRT) at blast furnace - 1 x 27 MW	No change
Waste Heat Recovery Boiler Generator (WHRB) at sinter plant - 1 x 15 MW	No change

24.9.4 Configuration and capacity change granted in ToR vis-a-vis with the proposed changes in configuration and capacity of units have been highlighted:

Manufacturing Capacity

Sl. No	Items	Approved ToR Capacity, (TPA)	Amendment Sought Capacity, (TPA)	Remarks
1	BF Coke	136100	136100 **(Saleable)**	No change
2	Coke Breeze	27200	27200	
3	Iron Shots	300200	300200	
4	Wire Rods	1000000	1000000	
5	Merchant Product	1200000	1200000	
6	Plates	668000	668000	
7	Granulated Slag	978600	978600	
8	Oxygen Plant	891000	891000	
9	By products			
	Coke oven gas	84360	84360	
	Crude Tar	92000	92000	
	Elemental sulphur	2500	2500	
	Naphthalene	150	150	
In house power generation		**88.6 MW**	**84.7 MW**	**84.7 MW**
Steam turbine generator (STG) at power blowing station		**(3 x 18 MW) – 2 Working + 1 Standby**	**(3 x 15 MW) – 2 Working + 1 Standby**	**(3 x 15 MW) – 2 Working + 1 Standby**

Sl. No	Items	Approved ToR Capacity, (TPA)	Amendment Sought Capacity, (TPA)	Remarks
Back pressure turbine generator (BPTG) at CDCP		**1 x 10.6 MW**	**1 x 12.7 MW**	**1 x 12.7**
Top recovery turbine generator (TRT) at blast furnace		1 x 27 MW	1 x 27 MW	No change
Waste heat recovery boiler generator (WHRB) at sinter plant		1 x 15 MW	1 x 15 MW	

Proposed Plant Facilities

Plant facilities	TOR Configuration	Amendment Sought	Remarks
Coke oven and by-product plant	2 x 67 ovens, 7 m	2 x 67 ovens, 7 m	No change
Sinter plant	496 m2	496 m2	
Blast furnace	4700 m3 (UV)	4700 m3 (UV)	
Steelmaking and continuous casting shop			
Basic oxygen furnaces (BOF's)	2 x 175 t	2 x 175 t	
Ladle furnaces (LF)	2 x 175 t	2 x 175 t	
RH-Degasser	1 x 175 t	1 x 175 t	
Billet casters	2 x 6 - strand	2 x 6 - strand	
Slab caster	1 x 1 - strand	1 x 1 - strand	
Rolling mills			
Plate mill	668000 tons/yr	668000 tons/yr	
Merchant mill	1200000 tons/yr	1200000 tons/yr	
Wire rod mill	1000000 tons/yr	1000000 tons/yr	
Oxygen plant (BOO Basis)	2 x 1350 tons/day	2 x 1350 tons/day	
Calcination plant			
Calcined lime plant	2 x 500 tons/day	2 x 500 tons/day	
Calcined dolo plant	1 x 500 tons/day	1 x 500 tons/day	
Steam turbine generator (STG) at power blowing station	**(3 x 18 MW) – 2 Working + 1 Standby**	**(3 x 15 MW) – 2 Working + 1 Standby**	**(3 x 15 MW) – 2 Working + 1 Standby**
Backpressure turbine generator	**1 x 10.6 MW**	**1 x 12.7 MW**	**1 x 12.7 MW**
Top recovery turbine generator (TRT) at blast furnace	**1 x 27 MW**	**1 x 27 MW**	No change

Plant facilities	TOR Configuration	Amendment Sought	Remarks
Waste heat recovery boiler generator (WHRB) at the sinter	**1 x 15 MW**	**1 x 15 MW**	

24.9.5 Apart from the captive power generation change, the following changes are also sought for amendment;

i. The estimated capital cost of the project is revised from Rs. 20098.56 Crores to Rs. 16986 Crores.

ii. The Sy. no 391/1 in Peddandluru village is excluded from the project area, as it was mentioned inadvertently.

24.9.6 The PP has reported that they have applied for public hearing based on the ToR dated 09/07/2020.

24.9.7 The PP has reported that there is no court case or violation under EIAs Notification to the project or related activity.

24.9.8 Name of the EIA consultant: Team Labs and Consultants [S.No. 135, List of ACOs with their Certificate / Extension Letter no. Rev. 3, Oct. 14, 2020].

Observations of the Committee

24.9.9 The Committee noted the following:

i. TOR was issued on 9th July 2020.
ii. Land requirement has not reduced as plot # 391/1 was not included in the land area indicated earlier.
iii. During detailing it has been observed that Power generation and Cost figures have also undergone revision, hence this request for amendment.

Recommendations of the Committee

24.9.10 In view of the foregoing and after deliberations, the Committee recommended for amendment as mentioned above in the ToR dated 9/7/2020.

24.10 Establishment of Manufacturing of 2 x 100 TPD Sponge Iron (DRI) Plant and 2 x 500 KW/hr Captive Power Generation Plant by **M/s. PVSR Steel and Power Private Limited** located at Sy No. 228/1, 228/2, 228/3 of Halakundi Village, **Bellary Taluk, Bellary District, Karnataka** [Online Proposal No. IA/KA/IND/179426/2020, File No. J-11011/42/2020-IA.II(I)] – **Amendment in ToR** – regarding.

24.10.1 M/s. PVSR Steel and Power Private Limited has made application vide online proposal no. IA/KA/IND/179426/2020 dated 17/10/2020 along with the Form 3, revised Form-I, copy of pre-feasibility report and sought for amendment in the ToR accorded by the Ministry vide letter no. J-11011/42/2020-IA.II(I) dated 05/05/2020.

Details submitted by the project proponent

24.10.2 M/s. PVSR Steel and Power Private Limited was accorded Terms of Reference vide letter no. J-11011/42/2020-IA.II(I) dated 05/05/2020 for the project titled "Establishment of

Manufacturing of 2 x 100 TPD Sponge Iron (DRI) Plant and 2 x 500 KW/hr Captive Power Generation Plant by M/s. PVSR Steel and Power Private Limited located at Sy No. 228/1, 228/2, 228/3 of Halakundi Village, Bellary Taluk, Bellary District, Karnataka."

24.10.3 The amendment sought by the project proponent has reported that as per the observation and recommendation of the EAC during the grant of ToR, it was suggested to design for 100% utilization of dolochar and waste heat recovery for power generation. Accordingly, as per the suggestion, it is proposed to implement 2 MW/Hr Power Plant with WHR based boilers, PCI (Pulverized char injection) system and 100% dolochar will be used along with Coal as fuel in WHR boilers for power generation.

24.10.4 Configuration & capacity change granted in ToR/EC vis-a-vis with the proposed

SL. No	Product / Activity (Capacity/Area)	Quantity As per approved ToR	Proposed Configuration	Final Configuration after Amendment	Remarks if any
1	Sponge Iron (DRI) Plant	2 x 100 TPD	2 x 100 TPD	2 x 100 TPD	As per earlier TOR- 2 x 100 TPD and there is no changes after amendment
2	Captive Power Generation Plant	2 x 500 KW/Hr (1MW/Hr)	2 MW/Hr	2 MW/Hr	As per earlier TOR capacity of Captive Power Generation 1MW/Hr and now it is proposed to Implement 2 MW/Hr
3	Boiler	0	2X5TPH	2X5TPH	Earlier ORC based Technology Now WHRB based boilers

24.10.5 PP has reported that as per the earlier ToR, baseline data collection has been started from 01.03.2020 and due to COVID-19 lock down, the monitoring was stopped on 23.03.02020. Further, the extension of baseline data collection was again continued from 1st October, 2020-5th December, 2020.

24.10.6 PP has reported that there is no court case or violation under EIAs Notification to the project or related activity.

24.10.7 Name of the EIA consultant: Environmental Health and Safety Consultants Pvt Ltd [S.No. 48, List of ACOs with their Certificate / Extension Letter no. Rev. 3, Oct. 14, 2020].

Observations of the Committee

24.10.8 The Committee noted the following:

i. TOR was issued on 05/05/2020.

ii. PP is putting up two 100 TPD DRI Kilns and shall use pulverized dolo ch.ar for preheating of charge
iii. Only 2 MW WHRB are proposed.
iv. No CFBC Proposed
v. 160 KLD Water from STP at Bellary shall be used in the plant.
vi. Fly ash shall be used for brick making.

Recommendations of the Committee

24.10.9 In view of the foregoing and after deliberations, the Committee recommended for amendment as mentioned under para 24.8.4 in the ToR dated 05/05/2020.

24.11 Modification-cum-Expansion in existing Ferro Alloys Plant of **M/s. Bihar Foundry & Casting Limited** at Notified Ramgarh Industrial Area, Survey Plot No 1405(P), Village - Marar, **Ramgarh Jharkhand** [Online Proposal No. IA/JH/IND/172815/2020; File No. J-11011/384/2010-IAII(I)] – **Prescribing of Terms of Reference (ToR)** –regarding.

24.11.1 The aforesaid proposal was earlier considered in 23rd meeting of the Re-constituted EAC (Industry-I) held during 28-30th September, 2020 but the project proponent did not attend the meeting. In view of the same, the Committee deferred the consideration of the proposal and recommended to consider the same in the next EAC meeting.

24.11.2 **M/s. Bihar Foundry & Casting Limited** has made application vide online proposal no. IA/JH/IND/172815/2020 dated 12/09/2020 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 & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent

24.11.3 M/s. Bihar Foundry & Casting Limited located at Notified Ramgarh Industrial Area, Survey Plot No 1405(P), Village - Marar, Ramgarh (JHK) – 829117 proposes to expand the existing unit for manufacturing of Ferro Alloys SiMn / FeMn based on Sub Merged Arc (SAF) technology.

24.11.4 The project was earlier accorded environmental clearance vide letter number J-11011/384/2010 – IA.II(I) dated 31/10/2011. Consent to Operate was accorded by Jharkhand State Pollution Control Board vide lr. no. B-42, validity of CTO is up to 31/12/2020.

24.11.5 The proposed unit will be located at Plot No 1405(P), Village - Marar, Taluka: Mandu, District: Ramgarh, State: Jharkhand. – 829117.

24.11.6 The land area acquired for the proposed plant is 3.1 ha which is a Government Land. No forest land is involved. The entire land has been acquired for the project. Of the total area 1.05 ha (33 %) land will be used for green belt development.

24.11.7 No national park/ wildlife sanctuary/biosphere reserve/ tiger reserve/ elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

24.11.8 Total project cost is approx Rs. 50 Crores. Proposed employment generation from proposed project will be 350 direct employment and 355 indirect employment.

24.11.9 The targeted production capacity of the SiMn –165TPD (58,575TPA) or HC/MC/LC FeMn – 265TPD (94,075TPA) depend on market scenario / demand. The ore for the plant would be procured from market sources. The ore transportation will be done through Import / Other Sources (Rail/Road/Conveyor/Slurry Pipeline).

24.11.10 The existing and the proposed production details are as below:

Existing Ferro Alloys units as per EC & Production	**Proposal (Modification-cum-Expansion)**	**Final Plant Configuration & Capacity**
2x5+1x7.5+1x9 MVA SAF (Submerge Arc Furnaces) Ferro Alloys SiMn/FeMn – 96TPD (34,080TPA)	1. Modification of existing 2x5 MVA SAF's to 2x6 MVA SAF's by change in transformer capacity 2. Modification of existing 1x7.5 MVA SAF to 1x9 MVA SAF by change in transformer capacity 3. New 1x9 MVA SAF 4. New 12MT per batch CLU(Creusot-Loire-Uddeholm) Converter for refining liquid HC FeMn to MC/LC FeMn 5. Matching associate facilities for operations	2x6+ 3x9 MVA SAF's + 1x12T per batch CLU Converter with matching associate facilities **Product Mix** SiMn – 165 TPD (58,575TPA) or HC/MC/LC FeMn – 265 TPD (94,075TPA) depend on market scenario/demand

24.11.11 The electricity load of 22.5 MW will be procured from DVC. Company has also proposed to install zero DG Set.

24.11.12 Proposed raw material and fuel requirement for project are 662.5 TPD Manganese Ore & 198.7 TPD coke. The requirement would be fulfilled by market sources as well as Imports. Fuel consumption will be mainly electricity from DVC.

24.11.13 Water Consumption for the proposed project will be 50 KLD additional and waste water generation will be recycled. Domestic waste water will be treated and industrial waste water generated will be treated and reused for cooling.

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

Observations of the Committee

24.11.15 The Committee noted the following:

i. The proposal is to upgrade existing 5 T, 7 T EAF to 6 T and 9 T respectively and install one more 9 MVA SAF thus making the complex to have 2x6+ 3x 9 MVA SAF Complex.

ii. Plant was installed after obtaining EC from MoEFCC during Oct 2011. CTO is valid till Dec 2020.

iii. Land area is 7.76 acres with green belt area as 1.09 acres.
iv. Water would be sourced from Damodar River.

Recommendations of the Committee

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

i. Only surface Water shall be used. Ground water abstraction shall not be permitted.
ii. 100 % water consumed annually shall be recharged through water harvesting.
iii. PM level from chimneys shall be maintained at < 30 mg/Nm^3 and Power plant emission norms of SO_2 and NO_X less than 100 Mg/Nm^3 shall be adhered to.
iv. All Plant roads and approach road to plant shall be made paved and industrial vacuum cleaners shall be used to keep the plant clean and free of fugitive emissions.
v. The dust collected from roads, plant floors and APCDs shall be recycled to pellet plant.
vi. 100 % of the slag generated through the process shall be utilized.
vii. Plant shall operate on ZLD.
viii. 4th hole extraction system shall be installed on SAF for control of dust emission.
ix. Briquetting and Jigging plant shall be installed.
x. No Ferro Chrome production without prior Environment Clearance from MoEF&CC.
xi. AOD (Argon Oxygen Decarburization) Converter shall have secondary fume extraction facility.

24.12 Mini-Integrated Steel Plant of 1,32,000 Metric Tons Per Annum (TPA) Capacity TMT/MS Roads Production by **M/s. Sri Subramanya Sponge Iron Pvt. Ltd** located at Sy. Nos. 135, 136, 137, 138, 139 & 140, Haraginadoni Village**, Bellary Taluk & District, Karnataka State** [Online proposal No. IA/KA/IND/98248/2019; MoEF&CC File No. IA-J-11011/74/2019-IA-II(I)] – **Prescribing of Terms of Reference (ToR)** – regarding**..**

24.12.1 The project proponent did not attend the meeting and no information has been received from PP in this regard.

24.12.2 The Member Secretary requested the EAC to carry out the due-diligence based on the documents circulated by the PP even in absence of PP.

24.12.3 EAC reiterated its decision taken during the meeting held on 26-28th August, 2020 which is reproduced as below:

24.12.4 EAC noted that as per the provisions of the EIA Notification, 2006 which states that *"Expert Appraisal Committee concerned in a transparent manner in a proceeding to which the applicant shall be invited for furnishing necessary clarifications in person or through an authorized representative".* In this regard, after deliberations, the EAC is of the considered view that participation of applicant in person (or) authorized representative is very much essential due to facilitate the following:

- To conduct the meetings in a transparent manner.

- To get consent of the PP while prescribing the conditions for which the proposal is considered by the EAC.
- To clarify the technical queries/concerns of EAC which might emerge during the appraisal.

24.12.5 In view of above, the Committee **deferred** the consideration of the proposal and recommended to consider the same in the next EAC meeting.

28th October, 2020

24.13 Upgradation of Existing Production Units and Additional Facilities to Create 0.6 Million Tonnes Capacity of Steel [Up gradation of existing 215 m^3 MBF to 450 m^3 in two stages i.e. production will be increased from 188,000 t/y to 280,000 t/y in first stage and in second stage 2,80,000 t/y to 4,72,500 t/y, 33 m^2 SP to 75 m^2 SP, addition of 2x350 t/d Direct Reduction of Iron (DRI) Kilns, Steel Melting Shop (SMS), two new Rolling Mills (RMs), new 35 MW CPP and up gradation of 4.5 MW CPP to 5 MW CPP for manufacturing of the 0.2 million tons per year (mt/y) of TMT Rebars,0.3 mt/y of Wire Rods (Carbon and Value Added Grades) and 0.1 mt/y of Billet] by **M/s. Neo Metaliks Limited** located at Mouza Gopalpur, **District Paschim Bardhaman, West Bengal**. [Online Proposal No. IA/WB/IND/152904/2007; File No. J-11011/779/2007-IA.II(I)] – **Environment Clearance –** regarding

24.13.1 **M/s. Neo Metaliks Limited** has made online application vide proposal no. IA/WB/IND/152904/2007 dated 22/10/2020 along with copy of EIA/EMP report and Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & nonferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent

24.13.2 The detail of the ToR accorded is furnished as below:

Date of application	Consideration	Details	Date of accord
07/03/2019	5th meeting held on 27-29th March, 2019	Terms of Reference	27/05/2020

24.13.3 The project of M/s Neo Metaliks Limited located in Gopalpur Village, Durgapur Tehsil, Paschim Bardhman District, West Bengal State is for enhancement of production from 0.188 million tonnes per annum of pig iron to 0.6 million tonnes per annum of steel. The existing project was accorded environmental clearance vide F.no. J-11011/779/2007-IA II (I) dated 4/11/2008.

24.13.4 The proposed capacity for different products for site area as below:

S.No.		EXISTING				PROPOSED			Total after expansion
		Particulars	No. of Units	Capacity	Final Product	No. of Units	Capacity	Final Product	
1.		MINI BLAST FURNANCE WITH	1	215 m^3	Pig iron	1	Upgraded to 450 m^3	Pig iron	1

		PULVERIZED COALDUST INJECTION (PCI)					with Compatible PCI		
2.		**SINTER PLANT**	1	33 m^2	Sinter	1	Upgraded to 75 m^2	Sinter	1
3.		**DRI KLINS**	-	-	-	2	350 t/d each	Sponge iron	2
4.		**STEEL MELTING SHOP**							
		(a) Induction furnaces, compatible LRF & CCM	0	0	-	2	30 t/12 MW	Billets	2
		(b) Zero Power furnace (ZPF), compatible LRF, VD & CCM	0	0	-	1	50 t	Billets/ Bloom	1
5.		**ROLLING MILLS**							
		(a) Fully Continuous Mill	0	0	-	1	200000 t/y	TMT Rebars	1
		(b) Wire Rod Mill	0	0	-	1	300000 t/y	Wire Rod	1
6.		**NEW CAPTIVE POWER PLANT**	0	0	-	1	35 MW	Power	1
7.		**EXISTING CAPTIVE POWER PLANT**	1	4.5 MW	Power	1	Upgraded to 5 MW	Power	1
8.		**OXYGEN PLANT (NITROGEN AS BY-PRODUCT)**	0	0	-	1	250 t/d	Oxygen	1

24.13.5 The total land required for the project is 36.44 ha which is a Private Land. No forest land is involved. The entire land has been acquired for the project. No River passes through the project area. It has been reported that no water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

24.13.6 The topography of the area is flat and reported to lies between 23º29´38.25"N to 23º29´40.27"N Latitude 87º22´50.36"E to 87º22´46.60"E Longitude in Survey of India topo sheet no. 73M/6 and 73M/7, at an elevation of 106 m AMSL. The ground water table reported to ranges between 0.22-11.63 m bgl below the land surface during the post-monsoon season and 0.74-19.95 m bgl below the land surface during the pre-monsoon season.

24.13.7 No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to for corridor for Schedule-I fauna.

24.13.8 The raw material requirement for the project is detailed as below.

Sl. No	Item Description	Unit	Annual Requirement of Raw Materials	Vendor	Mode of Transportation	Mode of Storage
(i)	Sinter Plant					
	Ore Fines	t	5,29,200	Odisha /Jharkhand	Rail/Road	Batch open Storage, covered with tarpaulins
	Coke Breeze	t	42,998	Imported –Russia & China Domestic – Jajpur, Haldia, Durgapur	Sea/Rail/ Road	-do
	Limestone	t	72,765	Imported from UAE	Sea/Rail/ Road	-do
	Dolomite	t	59,535	Birpara, (Bhutan)	Rail/Road	-do
	Burnt Lime	t	3,308	Domestic- Jaisalmer Imported- UAE	Sea/Rail/ Road	Polythene Bags under enclosed shed
	Mill Scale	t	Available in plant	Captive Generation, Purchased	-	Batch open Storage covered With tarpaulins
	Iron Dust (from MBF)	t	-do-	Captive Generation, Purchased	-	-do
(ii)	**Blast Furnace**					
	Iron Ore (lump)	t	2,38,140	Odisha/Jharkhand	Rail/Road	Batch open Storage covered With tarpaulins
	Sinter	t	From Sinter Plant	In house, Purchased	-	-do
	Coke	t	2,12,625	Imported	Sea/Rail/ Road	-do

				Domestic – Jajpur, Haldia, Durgapur		
	Coal Injection	t	80,325	Imported	Sea/Rail/Road	der Covered shed
(iii)	**DRI Plant**					
	Iron Ore	t	3,99,696	Odisha/Jharkhand	Rail/Road	Batch open Storage covered With tarpaulins
	Coal	t	3,29,295	Domestic-Coal India Ltd., ECL Imported-SouthAfrica	Sea/Rail/ Road	-do
	Dolomite	t	10,220	Birpara, (Bhutan)	Rail/Road	-do
(iv)	**Scrap**	t	29,470	Open Market	-do	In SMS Shed
(v)	**Pig iron**	t	8,145	-do	-do	-do

24.13.9 The targeted production capacity of the plant is 0.6 million TPA of steel. The iron ore for the plant would be procured from Odisha/Jharkhand. The ore transportation will be done through Rail/Road.

24.13.10 The water requirement of the project is estimated as 7440 m^3/day. Presently the plant has a sanction of 2090 m^3/day of Industrial Water supplied by Asansol Durgapur Development Authority (ADDA). Additional requirement of 5350 m^3/day shall also be met by ADDA. The permission for drawl of surface water is obtained from ADDA vide Lr. No. ADDA/DGP/ED/G-01/2020-21/208 dated 29.09.2020.

24.13.11 The power requirement of the project is estimated as 72.6 MW. Out of this, 40 MW of power shall be taken from Captive Power Plant CPP and balance 32.6 MW from the Damodar Valley Corporation (DVC).

24.13.12 Baseline Environmental Studies:

Period	March to May, 2019
AAQ parameters at 9 locations	$PM_{2.5}$ = 49.1 µg/m^3 to 96.0 µg/m^3 **PM_{10}= 87.3 µg/m^3 to 195.6 µg/m^3** SO_2= 15.0 µg/m^3 to 24.3 µg/m^3 NOx = 25.7 µg/m^3 to 45.6 µg/m^3
AAQ modelling	PM_{10} = 10.63 µg/m^3 SO_2 = 47.88 µg/m^3 NOx = 13.53 µg/m^3
Ground water quality at 8 locations	pH: 7.3 to 7.8, Total Hardness: 161.1 to 213.0 mg/l, Chlorides: 90.3 to 110.0 mg/l, Fluoride: 0.5 to 0.21 mg/l. Heavy metals are within the limits.
Surface water quality at 4 locations	pH: 7.1 to 7.7; DO: 4.8 to 5.9 mg/l and BOD: 2.4 to 5.1 mg/l. COD from 10.6 to 25.9 mg/l

Noise levels	50.0 to 66.2 dBA for daytime and 41.7 to 51.6 dBA for night time.

24.13.13 It has been reported that there is no R&R involved in the project.

24.13.14 It has been reported that a total of 1260.0 tons per day of solid waste will be generated due to the project, out of which 386.26 tons per day will be reused in the plant and 540.0 tons per day of waste will be sold for cement manufacturing, 201.04 tons per day of waste will be processed to obtain stone aggregates & fines for road making, 130.76 tons per day of waste will be sent for Brick making and 2.0 tons per day of waste will be dumped at the designated Industrial Waste Dumping Yard and sold to designated collectors.

24.13.15 It has been envisaged that an additional area of 11.32 ha will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

24.13.16 It has been reported that the Consent to Establish/Consent to Operate from the West Bengal State Pollution Control Board obtained vide Consent No. C0100888 dated 20.04.2017 and consent is valid up to 30.04.2022.

24.13.17 The Public hearing of the project was held on 29.11.2019 at Meeting Hall of Gopalpur G.P of Kanksa Block, District - Paschim Bardhaman, West Bengal under the chairmanship of Sri Prasanta Mandal, WBCS (Executive), (Additional District Magistrate (Education), Paschim Bardhaman) for production of 0.6 million TPA of steel. The issues raised during public hearing are related to more plantation programme inside & outside the industry, steps to be taken to control environmental pollution due to operation of the unit, and employment shall give to local villagers. An amount of 4.78 crores (0.5% of Project cost) has been earmarked based on public hearing issues.

24.13.18 The capital cost of the project is Rs. 956.0 Crores and the capital cost for environmental protection measures is proposed as Rs. 28.94 crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 6.34 crores. The employment generation from the expansion is 500 persons.

24.13.19 The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

Sl. No.	**Description of Item**	**Capital Investment (Rs. In Crores)**	**Recurring Cost Per Year (Rs. In Crores)**
1.	Air Pollution Control	14.34	2.87
2.	Water Pollution Control	8.60	1.72
3.	Solid and Hazardous Waste Control	2.87	0.57
4.	Noise and Vibration	1.43	0.29
5.	Environmental Monitoring	0.27	0.17
6.	Risk and Hazard Control	1.43	0.72
Total		**29.84**	**6.34**

24.13.20 Greenbelt will be developed in additional 11.32 ha which will be about 40% of the total plant area. A 100 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.

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

24.13.22 Name of the EIA consultant: Greencindia Consulting Private Limited [S.No. 144, List of ACOs with their Certificate / Extension Letter no. Rev. 3, Oct. 14, 2020].

Certified compliance report from Regional Office

24.13.23 The Status of compliance of earlier EC was obtained from Regional Office, Bhubaneshwar vide Lr. No. 102-221/07/EPE/6, dated 20.01.2020 wherein following significant non-compliances have been reported and the same are yet to be closed:

i. The environmental parameters (stack emissions, AAQ, work zone emissions, noise levels and water quality are not being monitored for once in six months which are not in conformity with CPCB norms.

ii. Required to conduct work zone emission monitoring at raw material handling section and other transfer points.

iii. Required to control the fugitive emissions as well as flying metal particles at work zone of Mini Blast Furnace.

iv. Green belt has not been developed covering 33% of the project area.

v. Present status of rain water harvesting system is not satisfactory.

vi. Project proponent is yet to obtain authorization under the provisions of Hazardous Waste Management Rules.

Observations of the Committee

24.13.24 The Committee noted the following:

i. The configuration of the unit accorded in the ToR dated 27/05/2019 and the same furnished in the EIA report are different.
ii. Significant non-compliances have been reported in the certified compliance report of RO and the same is yet to be complied. Further, formal closure report on observed non-compliances has not been obtained.
iii. Plant layout is highly congested. No engineering drawing is made available.
iv. 11acres land as per TOR for green belt adjacent to plant site has not been procured.
v. EIA report does not have Executive summary and TOR compliance.
vi. Approach to plant site is not clear.
vii. No Top Recovery Turbine is proposed on 450 m^3 Blast Furnace.
viii. Breakup of power generation of 40 MW not given.
ix. Proposal is not clear with respect to provision of secondary fume extraction included with ZPF and adoption of hot charging practice.
x. Fresh baseline data collection shall be conducted for additional one month in 10 km zone, due to the following:
    a) Project site is in critically polluted area. PM_{10} is reported as high as 195.6 µg/m^3 and $PM_{2.5}$ is reported as high as 96 µg/m^3 observed. No specific reason for such high level described in EIA report.
    b) Noise levels are not monitored at the plant site and has been monitored at 7.5 KM.
    c) Interpretation of data not carried out to find significant issues that may impact the environment.

xi. There is no connect between Chapter 2 and 3 with chapter 4 except AAQ data used for Modelling.
xii. Hazard Identification and Risk Assessment is not project specific.
xiii. PP shall submit the EMP Matrix indicating; EMP details, Time line for implementation; Budgetary Provisions and Monitoring Schedule and monitoring methodology.
xiv. Existing road conditions to be used for transportation of raw materials and finished products inter-alia including its dimensions along with photographs. Mitigation measures such as strengthening of existing road etc., if any, envisaged for transportation of raw materials and products by road.
xv. Line source modelling based on the quantity of raw materials and products to be transported different modes such as road and rail respectively shall be carried out and submitted.
xvi. Response to the issues raised during the public consultation has not been summarized in the EIA report.
xvii. Action plan to address the issues raised during the public consultation in accordance with the MoEF&CC O.M. dated 30/09/2020 has not been submitted.
xviii. There is no green belt exists at the project site.
xix. Environment policy given in Annexure 6.1. No SOP for compliance monitoring and NC reporting has been given.

Recommendations of the Committee

24.13.25 In view of the foregoing, after deliberations, the Committee opined that plant proposed is in highly polluted area, plant layout is very congested and adequate land is not available for plantation. In view of this and inadequacies cited above, the Committee recommended to return the proposal in present form.

24.14 Proposed Cement Plant capacity 1.6 MTPA Clinkerisation & Captive Power Plant 30 MW by **M/s. Canis Mines & Minerals LLP** located at Village: Thangskai, P.O: Lumshnong, **Dist: East Jaintia Hills, State: Meghalaya** [Online Proposal No. IA/ML/IND/139569/2020, File No. J-11011/46/2020-IA.II(I)] – **Prescribing of Terms of Reference** - regarding.

24.14.1 The aforesaid proposal was earlier considered in 16th meeting of the Re-constituted EAC (Industry-I) held during 24th -25th February, 2020 and reconsidered in the 23rd meeting of the Re-constituted EAC (Industry-I) held during 28-30th September, 2020 wherein the Committee after detailed deliberation returned the proposal in present form.

24.14.2 M/s. Canis Mines & Minerals LLP has now submitted revised proposal online vide No. IA/ML/IND/139569/2020 on 29/10/2020 application in the prescribed format Form-1 and Pre-Feasibility Report along with proposed Terms of Reference to undertake detailed EIA study for proposed cement manufacturing. The proposed project activity is listed at Sl. No. 3(b) Cement Plants under Category "A" in EIA Notification, 2006 and appraised at the Central Level.

Details submitted by the project proponent

24.14.3 M/s Canis Mines & Minerals LLP proposes to install a new manufacturing unit for clinker and cement manufacturing. It is proposed to set up the plant for 1.6 MTPA clinker and 1.6

MTPA Cement alongwith 6 MW Capacity WHRS & 25 MW Capacity Captive Power Plant based on latest technology.

24.14.4 The proposed unit will be located at Village Thangskai, P.O. Lumshnong, District East Jaintia Hills, Meghalaya.

24.14.5 The land area acquired for the proposed plant is 49.39 ha which is devoid of agricultural land, grazing land or others (Government Land). No forest land is involved. The entire land is in possession for the project. Of the total area 16.31 Ha (33%) land will be used for green belt development.

24.14.6 The National Park/WL etc. are located at a distance of 7.1 KM from the site. Narpuh wildlife sanctuary is reported to be located in the buffer zone of the project. The area does not report to form corridor for Schedule-I fauna.

24.14.7 Total project cost is approx Rs. 970 Crore rupees. Proposed employment generation from proposed project will be 60 direct employments and 140 indirect employments.

24.14.8 The targeted production capacity of the Clinker is 1.6 million TPA. The limestone for the plant would be procured from proposed captive mines. The limestone transportation will be done through Road. (Rail/Road/Conveyor/Slurry Pipeline). The proposed capacity for different products will be as below:

Name of unit	**No. of units**	**Capacity of each Unit**	**Production Capacity**
Clinker	1	1.6 MTPA	1.6 MTPA
Cement (OPC) (PPC)	2	1.6 MTPA 0.5 MTPA (OPC) 1.1 MTPA (PPC)	1.6 MTPA 0.5 MTPA (OPC) 1.1 MTPA (PPC)
Captive Power Plant	1	25 MW	25 MW
Waste Heat Recovery based PP	1	6 MW	6 MW

24.14.9 The electricity load of 30 MW will be obtained from Captive Power Plant Company has also proposed to install 0.5 MW DG Set for emergency power and 2.5 MW DG set for power plant cold start.

24.14.10 Proposed raw material and fuel requirement for project are Limestone, Clay, Gypsum, Fly ash and Coal. The requirement would be fulfilled by local & outside sources as well as Coal fuel consumption will be mainly for cement plant & captive power plant.

24.14.11 Water Consumption for the proposed project will be 3902.1 KLD and will be sourced from Um Lunar River/ River Chynryntong-Umparti and waste water generation will be 300 KLD (From CPP). 13.2 KLD Domestic waste water will be treated in Septic Tank and industrial waste water generated will be treated in ETP and reused for mill spray, ash quenching and greenbelt.

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

24.14.13 Name of consultant: Min Mec Consultancy Private Limited, New Delhi. The consultant is preparing and presenting reports as per the High Court of Delhi orders in LPA 110/2014 and CM No.2175/2014 (stay) and W.P.(C) 3665/2016.

Observations of the Committee

24.14.14 The Committee noted the following:

i. Proposal is for green field cement plant.
ii. 49.39 ha land is available from Industrial Dev Authorities.
iii. Project cost is Rs. 970 Crores.
iv. 3902 KLD water shall be sourced from Um Lunar River/ River Chynryntong-Umparti.

Recommendations of the Committee

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

i. PM emissions shall be less than 30 mg/Nm^3.
ii. Action plan to use the alternate fuels in the kiln shall be submitted.
iii. Kiln shall have WHRB to generate power.
iv. 100 % Solid waste generated shall be utilized. No dumping is permitted.
v. All plant roads shall be paved and cleaned regularly using industrial vacuum cleaners. Dust collected from roads and shop floors shall be recycled.
vi. Plant shall operate on ZLD.
vii. Drainage from coal stockpile shall be treated to meet statutory norms.
viii. Bio indicator study shall be carried out and if necessary SO_2 and NO_X levels shall be reduced to protect threatened species.
ix. PP shall submit the EMP Matrix indicating; EMP details, Time line for implementation; Budgetary Provisions and Monitoring Schedule and monitoring methodology.
x. Action plan to address the issues raised during the public consultation in accordance with the MoEF&CC O.M. dated 30/09/2020 shall be submitted.
xi. Storage areas/ stockpiles for coal in the unit shall be covered and shall have impervious flooring. Garland drains shall be provided around the storage area/ Stockpiles to arrest the seepage water from coal yard. The seepage water thus collected shall be treated to meet industry specific / general discharge norms for water quality as applicable.

24.15 Installation of Clinker Grinding Unit with Cement Production Capacity of 4.0 MTPA (2 x 2.0 MTPA) and DG Set of 4.0 MW (2 x 2.0 MW) capacity in phased manner by **M/s. Eco Plus Cement Industries Private Limited** located at Village: Lakhanpur, Tehsil: Bara, **District: Prayagraj, Uttar Pradesh** [Online Proposal No. IA/UP/IND/175464/2020, File No. J-11011/244/2020-IA.II(I)] – **Prescribing of Terms of Reference** - regarding.

24.15.1 **M/s. Eco Plus Cement Industries Private Limited** has made application vide online proposal no. IA/UP/IND/175464/2020 dated 03/10/2020 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. As per EIA Notification dated 14th Sept., 2006, as amended from time to time; the project falls under Category "B", Project or Activity '3(b)' - Cement Plants. As the Interstate Boundary of Uttar Pradesh - Madhya Pradesh falls at a distance of 1.0 km from the proposed project site;

General condition is applicable on the project. Therefore, the project will be treated as Category - "A" project and appraised at Central Level (MoEF&CC, New Delhi).

Details submitted by the project proponent

24.15.2 M/s. Eco Plus Cement Industries Private Limited proposes Installation of Clinker Grinding Unit with Cement Production Capacity of 4.0 MTPA (2 x 2.0 MTPA) and DG Set of 4.0 MW (2 x 2.0 MW) capacity in phased manner at Village: Lakhanpur, Tehsil: Bara, District: Prayagraj (Uttar Pradesh). It is proposed to set up the Grinding Unit for manufacturing of cement based on dry process technology.

24.15.3 The proposed unit will be located at Village: Lakhanpur, Tehsil: Bara, District: Prayagraj (Uttar Pradesh).

24.15.4 The land area for the proposed project is 25.829 ha which is a private land. No forest land is involved. The entire land is yet to be acquired for the proposed project. Out of the total project area, 8.52 ha (33% of the total project area) will be covered under greenbelt / plantation.

24.15.5 No National Park / Wildlife Sanctuary / Biosphere Reserve/ Tiger Reserve/ Elephant Reserve, etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

24.15.6 Total project cost is approx. Rs. 422 Crores (Phase I: 249 Crores & Phase II: 173 Crores). Proposed employment generation from the project will be approx. 300 Persons {Phase I: 180 (Regular - 29; Contractual 151) and Phase II 120 (Regular: 68 and contractual: 52)} direct employment and 500 - 800 indirect employment.

24.15.7 The targeted production capacity of Proposed Clinker Grinding Unit is Cement Production Capacity 4.0 MTPA (2 x 2.0 MTPA) and DG Set 4.0 MW (2 x 2.0 MW) capacity in phased manner. Clinker will be sourced from Cement Plants situated in Satna District by rail and road. Gypsum will be Imported from Bhutan via Haldia Port by rail & road and fly ash will be sourced from Prayagraj Power Generation Company Ltd., Khan Semra, Tehsil- Bara, Uttar Pradesh by road. The proposed capacity for different products for new site area is as below:

Units	Particulars	Proposed Capacity	
		Phase - I	Phase - II
1.	Clinker Grinding unit (MTPA)	2.0	2.0
2.	D.G. Set (MW)	2.0	2.0

24.15.8 The electricity load of 26.8 MW (Phase - I: 13.5 MW & Phase - II: 13.3 MW) will be sourced from U.P. State Electricity Board. Company has also proposed to install DG Set of 4.0 MW (2 x 2.0 MW) capacity in phased manner.

24.15.9 Proposed Raw materials required for the project are Clinker; which will be sourced from Cement Plants situated in Satna District. Gypsum will be Imported from Bhutan via Haldia Port and fly ash will be sourced from Prayagraj Power Generation Company Ltd., Khan Semra, Tehsil- Bara, Uttar Pradesh. Fuel for Grinding Unit will be mainly coal; which will be sourced from Singrauli Coal Field and Diesel will be sourced from local area.

S. No.	Name	Quantity		Source	Distance & Mode of Transportation
		Phase-I	Phase-II		
1.	Clinker	1.25	1.25	Cement Plants situated in Satna District	200 km Rail & Road
2.	Gypsum	0.07	0.07	Imported from Bhutan via Haldia Port	900 km Rail & Road
3.	Fly ash	0.68	0.68	Prayagraj Power Generation Company Ltd., Khan Semra, Tehsil- Bara, Uttar Pradesh	5.5 km & Road

24.15.10 Water Consumption for the proposed project will be 105 KLD (Phase I: 54 KLD & Phase II: 51 KLD); which will be sourced from Ground water after obtaining necessary permission from regulatory authorities. The proposed Grinding Unit will be based on zero Liquid Discharge (ZLD). Water used for cooling at various stages of cement manufacturing be partially evaporation blow down water will be used for dust suppression; hence, no waste water will be discharged. Domestic Waste water generated will be treated in STP and treated water will be used for greenbelt development / plantation.

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

24.15.12 Name of the EIA consultant: J.M. EnviroNet Pvt. Ltd. [S.No. 38, List of ACOs with their Certificate / Extension Letter no. Rev. 3, Oct. 14, 2020].

Observations of the Committee

24.15.13 The Committee noted the following:

i. It is a 4 MTPA grinding unit.
ii. Interstate Boundary of Uttar Pradesh - Madhya Pradesh falls at a distance of 1.0 km from the proposed project site.
iii. 25.829 ha area is available.
iv. 105 KLD water from Ground is proposed.
v. Railway siding is included

Recommendations of the Committee

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

i. Stack emissions shall be less than 30 mg/Nm^3.
ii. Fugitive emissions shall be controlled by providing paved roads, industrial vacuum cleaners, water spray, covered sheds and by recycling the dust collected to the plant..
iii. 100 % water consumed annually shall be harvested and recharged with monitoring facilities.
iv. 100 % waste utilization shall be practiced and dumping of waste shall not be permitted.

v. 33% green bell, shall be provided. More green belt shall be provided towards north and south east where villages are located.
vi. Tall trees shall be planted in land scalping areas on periphery shall be carried out.
vii. Detailed traffic study shall be carried out.
viii. PP shall submit the EMP Matrix indicating; EMP details, Time line for implementation; Budgetary Provisions and Monitoring Schedule and monitoring methodology.
ix. Action plan to address the issues raised during the public consultation in accordance with the MoEF&CC O.M. dated 30/09/2020 shall be submitted.

29th October, 2020

24.16 Expansion of Steel Plant – New Induction Furnace with Rolling Mill (Hot Charging) (Structural Steel & Rolled products 3,00,000 TPA), Rolling Mill (Structural Steel & Rolled products - 1,20,000 TPA to 2,40,000 TPA) & Wire Drawing (60,000 TPA to 1,20,000 TPA) by **M/s. Hira Steels Limited** located at Rawabhata Industrial Area, Tehsil & **District: Raipur, Chhattisgarh** [Online Proposal No. IA/CG/IND/180181/2020; File No. J-11011/210/2020-IA.II(I)] – **Environment Clearance** – regarding.

24.16.1 The proposal cited above was transferred from SEIAA – Chhattisgarh through Parivesh on 22nd October, 2020 vide online application No. SIA/CG/IND/57073/2018 in pursuance to the MoEF&CC Office Memorandum no. 22-23/2018-IA.III (Pt.) dated 31/10/2019 as the project site is located within 5 km from the boundary of the critically polluted areas (Siltara – 4.47kms & Urla Industrial Area-2.36 kms) for which appraisal has to be done at Central level. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "B 1" of the schedule of the EIA Notification, 2006. However, the appraisal is done at the central level MoEF&CC Office Memorandum no. 22-23/2018-IA.III (Pt.) dated 31/10/2019.

Details submitted by the project proponent

24.16.2 The detail of the ToR accorded is furnished as below:

Date of application	Consideration	Details	Date of accord
06/01/2018	80th SEAC, Chhattisgarh, meeting held on 3rd November 2018	Terms of Reference	06/12/2018 (At the time grant of ToR Siltara & Urla was a severely polluted area. Hence, ToR was obtained from SEIAA).

24.16.3 The project of M/s.Hira Steel Ltd.is an existing steel plant at Rawabhata Industrial Area, Tehsil & District: Raipur, Chhattisgarh. It has been proposed to expand the steel plant by establishing New Induction Furnaces with Rolling Mill through Hot Charging to produce Structural Steel & Rolled products of 3,00,000 TPA , Expansion of Rolling Mill production capacity from 1,20,000 TPA to 2,40,000 TPA to produce Structural Steel & Rolled products & Expansion of Wire Drawing facility from 60,000 TPA to 1,20,000 TPA in the Existing plant is located at Khasra No. 720/1, 720/2, 720/3, 720/4, 720/5, 720/7,

720/8, 722/1, 722/2, 730/1, 730/2, 730/5, 730/6, 735/2, 736, 737, 721/2, 723, 710/10, Rawabhata Industrial Area, Raipur Tehsil & District, Chhattisgarh.

24.16.4 Existing plant does not attract EC provision, as existing plant has obtained Consent To Establishment (CTE) prior to EIA notification dated 14th September 2006. Hence, Certified Compliance Report of Consents issued for existing plant from Chhattisgarh Environment Conservation Board (CECB), Raipur has been obtained. There are no non-compliances reported by CECB, Raipur.

24.16.5 The following are the existing and proposed plant configuration and production capacities:

S.No.	Unit	Existing (TPA)	Proposed Expansion (TPA)	After Expansion (TPA)
1.	Rolling Mill	1,20,000	1,20,000	2,40,000
2.	Wire Drawing	60,000	60,000	1,20,000
3.	Induction Furnaces with Rolling Mill (through Hot Charging)	--	3,00,000 (6 x 15 T & 1 x 10 T)	3,00,000
4.	Galvanizing Unit *****	--	50000	Dropped now.
5.	Binding Wire *****	--	50000	Dropped now.
****** Note: Galvanizing and Binding wire Units have been Dropped now from the proposal for which TOR accorded*				

24.16.6 Existing plant is located at Khasra No. 720/1, 720/2, 720/3, 720/4, 720/5, 720/7, 720/8, 722/1, 722/2, 730/1, 730/2, 730/5, 730/6, 735/2, 736, 737, 721/2, 723, 710/10, Rawabhata Industrial Area, Raipur Tehsil & District, Chhattisgarh. Existing plant is located in 8.394 ha. (20.74 acres) of land. Proposed expansion will be taken up in the Existing plant premises only. However, an additional land of 1.828 ha. (bearing khasra no. 720/6, 730/3, 730/4, 731, 732/1, 732/2, 733) has been acquired adjacent to the plant site for development of additional greenbelt. Now, total greenbelt will be 4.088 ha. (i.e. 40 % to total land). Subsequently, the total land will be 10.222 ha. No River / stream passes through the plant area. It has been reported that no natural water body / stream exist the plant area and any modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

24.16.7 The topography of the area is flat with undulations and reported that the site lies between 21°18'55.37"N to 21°19'6.71"N Latitude and 81°38'52.08"E to 81°38'59.80"E longitude in Survey of India Topo sheet no. 64 G/11 at an elevation of 247m AMSL. The ground water table reported to ranges between 0.56 to 7.86 mbgl below the land surface during the post-monsoon season and 15.0 to 2.75 mbgl below the land surface during the pre-monsoon season.

24.16.8 There are no National Park/ Wild life sanctuary / Biosphere reserve / Tiger Reserve/ Elephant Corridor / migratory route for Birds with in 10 Km. radius of the plant. No Reserve Forest / Protected Forest exists within 10 Km. radius of the plant site. No forest land is involved in the 10.222 Ha. land pertaining to the plant. There are no Schedule- I fauna exist in the study area.

24.16.9 Detailed process provided in the EIA report and list of raw material for the proposed expansion project including existing plant is given below:

S. No.	Raw Material	Quantity	Sources	Distance (w.r.t Plant)	Mode of Transport
1.	For Induction Furnace – 3,00,000 TPA (through hot charging)				
a)	Sponge Iron	2,50,000 TPA	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)
b)	Scrap	1,07,000 TPA	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)
c)	Ferro alloys	4,500 TPA	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)
2.	For Rolling Mill (TMT bars & Structural Steel) – 2,40,000 TPA				
a)	Billets	2,60,000 TPA	Chhattisgarh / Hot out from Induction Furnace	~ 100 Kms.	By road (through covered trucks) By Conveyers

24.16.10 The targeted production capacity of the plant after expansion project is Structural Steel / Rolled product–0.5 million TPA.

Impact on Vehicular Traffic Load due to proposed expansion

Traffic load during the operation of the existing plant (Baseline) :14824 PCU/day

Additional Traffic load during operation of the expansion project : 547 PCU/day

Total Traffic load during operation of existing and proposed expansion :15371 PCU/day

Traffic Capacity as per the IRC 73: 1980 for 4-Lane Highway :20000 PCU/day

24.16.11 Water required in the existing plant is 20 KLD and is being supplied by Chhattisgarh State Industrial Development Corporation (CSIDC). Water requirement for the proposed expansion will be 80 KLD. The total water requirement after the proposed expansion will be 100 KLD. Water required for the existing plant and proposed expansion project will supplied by Chhattisgarh State Industrial Development Corporation (CSIDC). Letter has been issued by CSIDC vide no. CSIDC/CA (Division-02)/2020-21/5724 Raipur, dt. 21/07/2020, confirming water supply to the company.

24.16.12 Total power required for the existing unit & for the proposed expansion units will be 37 MW, which will be sourced from State Grid.

24.16.13 Baseline Environmental Studies:

Period	1st March 2019 to 31st May 2019
AAQ parameters at 8 locations	$PM_{2.5}$ = 21.8 to 49.8 µg/m^3 PM_{10}= 38.4 to 87.8 µg/m^3 SO_2= 7.4 to 15.5 µg/m^3 NOx = 9.1 to 28.5 µg/m^3 CO = 518 to 1458 µg/m^3
AAQ modelling	PM_{10} = 1.69 µg/m^3 SO_2 = Nil

	NOx = 10.5 µg/m^3 CO = 0.83 µg/m^3
Ground water quality at 8 locations	pH: 7.1 to 7.9, Total Hardness: 186 to 305mg/l, Chlorides: 178 to 308mg/l, Fluoride: 0.48 to 0.75mg/l. Heavy metals are within the limits.
Surface water quality at 6 locations	pH:7.6 to 8.0, DO: 4.1 to 6.3mg/l, BOD: 2.2 to 4.1mg/l & COD:4.8 to 11.6mg/l.
Noise levels	44.00 dBA to 70.89 dBA

24.16.14 It has been reported that there is no R & R involved, as the expansion will be taken up in the existing plant premises only. Additional land of 1.828 ha. has been acquired for greenbelt development. In the additional land also no R & R is involved.

24.16.15 It has been reported that the following Solid wastes will be generated due to the proposed expansion project which will be stored in storage yard above the ground level.

S.No.	Solid Waste / By product	Existing (TPA)	Proposed (TPA)	Method of Disposal
Induction Furnace				
1	Slag	---	25,500	Slag from SMS will be crushed and iron will be recovered & remaining non-magnetic material being inert by nature will be used as sub base material in road construction / will be given to brick manufacturers.
Rolling Mill				
2	Mill scales	1440	1440	Mill scales are being given to nearby Ferro Alloys Unit or casting units and same practice will be continued after expansion also.
3	End Cuttings	4560	4560	End cuttings are being given to nearby Induction Furnace units. Now after the proposed expansion it will be recycled back in the process as raw material in Induction Furnaces in the same premises.
4	Cinder	4900	---	Is being sold to Brick manufacturers units

24.16.16 It has been reported that an area of 4.088 ha. (40 % of total land) has been earmarked for Greenbelt to attenuate the noise levels and to mitigate the particulate emission due to the proposed project activities.

24.16.17 It has been reported that the Consent to Operate (CTO) for 1,20,000 TPA Rolling Mill vide letter no. 1211 & 1213/TS/CECB/2016 dt. 26/05/2016 valid till 31/12/2020 and for H.B. Wire drawing unit vide letter no. 7958 & 7959/RO/TS/CECB/2018 dt. 26/03/2018 valid till 28/02/2023 from the Chhattisgarh Environment Conservation Board (CECB).

24.16.18 The Public hearing for the proposed expansion project has been held on 27th February 2020, at 11:00 AM at ATDC Bhavan, Urla Industrial Area, Raipur (Tehsil & District), Chhattisgarh under the Chairmanship of Additional District Magistrate and Upper

Collector(ADM cadre).The issues raised during public hearing are Employment generation, Plantation in School & Villages, Rain Water Harvesting outside the plant premises, Pollution Problem in the area, etc. An amount of Rs.1.44 Lakhs has been earmarked based on public hearing issues & SIA study.

24.16.19 The capital cost of the expansion project is **Rs.71.47 Crores** and the capital cost for environmental protection measures is proposed as Rs.8.7 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs.60 lakhs/annum. The employment generation is 100 people during operation of the expansion and 150 people during construction of the proposed units.

24.16.20 The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

S.No.	Particulars	Capital Cost (Rs.in Crores)	Recurring Cost / Annum (Rs.in Lacs)
1.	Air Emission Management		
	Fume Extraction system with bag filters	2.5	25.00
	Stacks	3.0	
	Water Sprinklers	0.1	
2.	Wastewater Management		
	Settling Ponds	0.05	4.00
	STP	0.15	
	for Garland drains	0.1	
3.	Solid waste Management		
	Slag Handling & Disposal	0.2	7.00
	Hazardous waste storage & disposal	0.1	
	Construction of Pucca platform for storage	0.2	
4.	Greenbelt development, Land scaping, Noise Management, RWH etc.	0.1	2.00
5.	Occupational Health & Safety (including Dispensary with Ambulance facility)	0.3	12.00
6.	Environment Monitoring (AAQMS & CEMS)	2.0	10.00
TOTAL		**8.7**	**60.00**

24.16.21 Greenbelt will be developed in an area of 4.088 ha. (40 % of total land). In the existing plant, 6000 no. of plants have been planted, out of which 5000 no. of plants have survived. Now it is proposed to plant additional 5300 nos. by September 2021.

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

24.16.23 Name of the EIA consultant: Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [S.No. 124, List of ACOs with their Certificate / Extension Letter no. Rev. 3, Oct. 14, 2020].

Observations of the Committee

24.16.24 The Committee observed the following:

i. The Committee noted that the proposal has been transferred from SEIAA – Chhattisgarh and the appraisal is done at the Central Level as per the MoEF&CC O.M. dated 31/10/2019.

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

Recommendations of the Committee

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

A. Specific conditions

i. Stack emissions shall be less than 30 mg/Nm^3 and PTFE Dipped bags shall be used.
ii. 90 % hot charging shall be practiced in the plant and balance 10%shall be through RH Furnace which shall operate on LDO. Gasifier shall be phased out latest by Dec 2022.
iii. Rolling mill shall have adequately sized ETP with scale pit, oil separator and sedimentation and filtration of fine particles.
iv. 0.7 Km approach road to the plant from national highway shall be planted on both sides with local, hardy and leafy trees and maintained by PP.
v. No additional ground water abstraction shall be permitted.
vi. Fugitive emissions shall be controlled by providing pacca roads, industrial vacuum cleaners, water spray, covered sheds and by recycling the dust collected to the plant.
vii. 100 % water consumed annually shall be harvested and recharged with monitoring facilities.
viii. 100 % waste utilization shall be practiced and dumping of waste shall not be permitted.
ix. 40 %. Green belt shall be provided having local, hardy and leafy trees.

B. General conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

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

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognised 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. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

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

III. Water quality monitoring and preservation

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

ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the

plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.

iii. Adhere to 'Zero Liquid Discharge'.

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

v. 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.

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

IV. Noise monitoring and prevention

ii. 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

ii. 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

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

vi. 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.

vii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused in melting Furnaces.

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

VII. Green Belt

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

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

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. Corporate Environment Responsibility

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

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

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

X. Miscellaneous

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

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

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

iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters,

indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

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

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

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

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

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

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

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

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

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

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

24.17 Proposed Expansion of Steel Plant - Establishment of Sponge Iron plant (from 1.2 TMPA to 2.0 MTPA), Steel Melting Shop (from 1.176 MTPA to 2.0 MTPA), Establishment of New Rolling Mill unit (0.8 MTPA), Oxygen plant (from 8 TPD to 162 TPD), WHRB Power Plant (from 57 MW to 140 MW) & FBC Power Plant (from 162.5 to 215 MW, New Iron ore beneficiation unit (0.75 MTPA), New Pelletization Plant (1.5 MTPA) by **M/s. Prakash Industries Limited** located at Villages: Hathneora & Champa, **District: Janjgir - Champa Chhattisgarh** - [Online Proposal No. IA/CG/IND/177182/2020, File No. J-11011/522/2008-IA.II(I)] – **Prescribing of Terms of Reference** - regarding.

24.17.1 **M/s. Prakash Industries Limited** has made application vide online proposal no. IA/CG/IND/177182/2020 dated 02/10/2020 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 & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent

24.17.2 M/s. Prakash Industries Ltd. is an existing Integrated Steel Plant located at Hathneora Village, Champa Tehsil, Janjgir-Champa District, Chhattisgarh. It proposes to go for expansion of Integrated Steel Plant and proposed to manufacture the following:

- Sponge Iron - Additional 0.8 MTPA
- Billets / Blooms / Ingots – Additional 0.75 MTPA
- TMT / Wire rod mill - 0.8 MTPA
- Iron Ore Beneficiation - 0.75 MTPA
- Iron Ore Pellet plant - 1.5 MTPA
- Oxygen Plant - 150 TPD
- WHR based Power Plant - Additional 83 MW
- FBC based Power Plant - Additional 52.5 MW

24.17.3 The existing plant was accorded Environment Clearance vide F.No. J-11011/522/2008 - IA II (I) dated 3rd November 2010 & and 07.08.2019 (Validity extension). Consent to Operate was accorded by Chhattisgarh Environment Conservation Board vide No. 10854/TS/CECB/2020 dt. 04.03.2020 for Sponge Iron – 1.2 MTPA, WHRB Power Plant - 57 MW, FBC Power Plant - 162.5 MW, Steel Manufacturing (Ingots/Billets/Blooms) – 1.176 MTPA, Sinter Plant – 0.1 MTPA, Oxygen Plant 8 MTPA valid till 13.06.2023 and vide no. 5916/TS/CECB/2018 dt. 29.10.2018 for 9 x 7.5 MVA Ferro Alloys valid till 16.02.2022

24.17.4 The proposed unit is located at Village Hathneora District Janjgir-Champa, Chhattisgarh and proposed expansion will be taken up in the existing plant premises only.

24.17.5 Existing plant is located in 601.52 acres (i.e. 243.476 ha.) of land. Proposed expansion will be taken up in the existing plant premises only. Of the total area, 200. Ac. / 81.14 ha. (33%) land is allocated for greenbelt developed. No Forest land involved.

24.17.6 No Reserve Forest exists within the 10 Kms. Radius of the plant site. No National park/Wild life sanctuary/Biosphere reserve/tiger reserve/Elephant reserves are reported to be located in the core and buffer zone of the project. Hasdeo river (0.14 Kms.) and Son Nadi (8.0 Kms.) are present within 10 Kms. of project site. NH# 200 is passing at a distance of 2.0 Kms. from the project site. The area also does not report to form corridor for Schedule – I fauna.

24.17.7 Total project cost for proposed expansion project is approx. Rs.1631 Crores. Proposed employment generation from proposed project will be 1326 nos. both direct employment indirect employment.

24.17.8 The targeted production capacity of the total plant is 0.8 million TPA. The Iron ore fines for the plant would be procured from In-house generation through screening, Company's own mines and from NMDC iron ore mines. The ore transportation will be done through by Rail & Road (through covered trucks).

24.17.9 The proposed capacity for different products are as below:

S.No.	Details of Unit	Capacity under operation	Capacity under installation	Proposed Expansion	After Proposed Expansion
1	Sponge Iron Plant (DRI Plant)	1.2 MTPA	---	0.8 MTPA	2.0 MTPA
2	Billets/Blooms/ Ingots IF-AOD-LRF / BF – EAF - LD Converter route	1.176 MTPA	0.074 MTPA	0.75 MTPA	2.0 MTPA
3	TMT/Wire Rod Mill	---	---	0.8 MTPA	0.8 MTPA
4	Ferro Alloys	1,15,000 TPA (9 x 7.5 MVA)	---	---	1,15,000 TPA
5	Sinter Plant	0.1 MTPA	---	---	0.1 MTPA
6	Oxygen Plant	8 TPD	4 TPD *	150 TPD	162 TPD
7	Iron Ore Beneficiation Plant	---	---	0.75 MTPA	0.75 MTPA
8	Iron Ore Pelletization Plant	---	---	1.5 MTPA	1.5 MTPA
9	Captive Power Plant				
	a) Co-generation Power Plant (WHRB)	57 MW	---	83 MW	140 MW
	b) Coal based power plant	162.5 MW	---	52.5 MW [Existing CFBC power plant of 12.5 MW will increase to 15 MW & 2 x 25 MW CFBC Power plant]	215 MW
	Total	219.5 MW	---	135.5 MW	355 MW
* 4 TPD Oxygen plant is under implementation. However due COVID-19 machinery has not been supplied by supplier and same will be considered in the proposed expansion.					

24.17.10 Power required for the existing plant is 219.5 MW and is being sourced from Captive Power Plant and Power required for the proposed expansion project will be 135.5 MW and will be sourced from Captive Power Plant. Total power required after proposed expansion project will be 355 MW.

24.17.11 Proposed raw material and fuel requirement for expansion project are Iron Ore fines, Bentonite, Anthracite Coal or Coke breeze, Dolomite, Quarts etc., Requirement would be fulfill by external purchase / in house.

S.No.	Raw Material		Quantity (TPA)	Sources	Mode of Transport
1)	For I/O Beneficiation Plant (Iron Ore concentrate) – 7,50,000 TPA				
a)	Iron Ore Fines		7,50,000	In house generation through screening at Champa and Company's own mines	In house arrangements By Road through covered trucks
2)	For Pellet Plant (Pellets) – 15,00,000 TPA				
a)	Iron ore fines / Concentrate		15,45,000	In house generation through screening at Champa and Company's own mines	In house arrangements By Road through covered trucks
b)	Bentonite		12,000	Kutchh & Bhuj (Gujrat)	By Rail & Road through covered trucks
c)	Anthracite Coal / Coke Breeze		22,500	Traders and coke producers	By Rail & Road through covered trucks
d)	Dolomite / Limestone		15,000	Open market	By Rail & Road through covered trucks
e)	Coal for Gasifier for Pellet Plant (4 x 8000 Nm^3/Hr)		59,520	Linkage / E auction / Traders	Road through covered trucks
3)	For DRI Kilns (Sponge Iron) – 8,00,000 TPA				
a)	Pellets (100 %)		11,60,000	In plant generation	By Conveyers
	Or				
b)	Iron Ore (100 %)		12,80,000	Sirkagutu Mines Keonjhar, Odisha	By Rail (through covered trucks)
c)	Coal	Indian	10,42,080	Linkage through E- auction / Spot E- auction through SECL CG / Traders	By rail & road (through covered trucks)

S.No.	Raw Material		Quantity (TPA)	Sources	Mode of Transport
d)	Dolomite		1,20,000	Chhattisgarh	By road (through covered trucks)
4)	For Steel Melting Shop (Ingots / Billets / Blooms) – 7,50,000 TPA				
a)	Sponge Iron		6,00,000	In plant generation	By Conveyers
b)	Pig Iron		90,000	Chhattisgarh	By road (through covered trucks)
c)	MS Scrap		50,000	Chhattisgarh	By road (through covered trucks)
d)	Slag crusher recovery		1,500	Captive Generation	By Conveyers
4)	For TMT/ Wire Rod Mill (TMR & Wire Rod)				
a)	Hot Metal / MS Billets / Ingots		8,70,000	Inhouse generation	---
b)	Coal for Gasifier (10 x 8000 Nm^3/Hr)		74,400	Linkage through E- auction / Spot E- auction through SECL CG / Traders	By rail & road (through covered trucks)
5)	For Oxygen Plant (Oxygen) 150 TPD				
a)	Air		201206250 M^3 / Year	---	----
6)	For Power Plant (2 x 25 MW) - 2 x 105 TPH CFBC Boilers				
a)	Indian Coal (100%)		3,00,000	Linkage through E- auction / Spot E- auction through SECL CG / Traders	By rail & road (through covered trucks)
	or				
B)	Dolochar + Indian Coal	Dolochar	2,00,000	In plant generation	through covered conveyors
		Indian Coal	2,20,000	SECL Chhattisgarh / MCL Odisha	By rail & road (through covered trucks)

24.17.12 Total water requirement for all the units in the existing plant is 28,235 m³/day and for proposed expansion it is 22,105 m³/day. Total water requirement after the proposed expansion proposal will be 50,340 m³/day. However, the net water requirement after the proposed expansion will be 42,285 m³/day, after deducting (5850 KLD + 2205 KLD = 8055 KLD) the recycling & reutilizing of treated wastewater in the process, road cleaning, dust suppression and greenbelt development. Water required for the entire proposal will be

sourced from Hasdeo river. Water drawl permission has been obtained for existing operations. For expansion water permission will be obtained for additional quantity and there will be no waste water discharge from the proposed project as closed-circuit cooling system will be adopted. Domestic waste water will be treated STP.

24.17.13 The proponent has mentioned that they filed a writ Petition W.P. (C) No. 3770 dt. 12.07.2011 against the direction & order of CPCB, before Hon'ble High Court, Bilaspur & Chhattisgarh. The Hon'ble High Court granted stay order on 15.07.2011 against the direction 22.03.2011 & order dt. 09.06.2011 of CPCB. The stay order is still continuing.

24.17.14 Name of the EIA consultant: Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [S.No. 124, List of ACOs with their Certificate / Extension Letter no. Rev. 3, Oct. 14, 2020].

Observations of the Committee

24.17.15 The Committee observed the following:

i. Instant proposal is for Expansion of existing 1.2 MTPA Integrated Iron and Steel Plant to 2 MTPA.
ii. Presently the plant is operating on a Stay Order of June 2011 from the Hon'ble High Court of Chhattisgarh against closure notice of CPCB dated 9th June 2011. A recent Supreme Court pronouncement dated 15/10/2020 in the Criminal Appeal No. 1375-1376 of 2013 states that the stay orders issued by tall the courts in the country, including High Courts, shall expire after six months.
iii. Existing EC dated 3.11.2010 is valid till 2.11.2020 and several units are still under implementation.
iv. Expansion TOR which was given to the company on 18/06/2018 needs to be withdrawn to avoid duplication of TORs.
v. Land available is 601.52 Acres that is adequate for the plant expansion.
vi. Plant is located 140 m away from the bank of Hasdeo River and PP claims there is no history of flooding of the area.
vii. Tailing pond for Iron ore beneficiation plant is not permitted. Tailings shall be dewatered in the filter press and used in construction industry.

Recommendation of the Committee

24.17.16 In view of the foregoing and after deliberations, the Committee recommended the following:

i. The proposal is returned in present form with a request to submit the following:
    a. Availability of water in the Hasdeo River with respect to lean flow and competing users.
    b. Impact of air pollution on riverine ecology shall be submitted.
    c. Highest Flood, 5 year & 10 year flood discharge along with flood level of the river Hasdeo and its impact on the unit along with its mitigation measures shall be submitted. Spread of 5 year, 10 year and highest flood may be depicted on a map of legible scale.

ii. The Ministry shall seek a legal opinion on the applicability of Hon'ble Supreme Court Order on the stay Order of the Hon'ble High Court of Chattisgarh and thereafter appropriate action may be taken.

iii. The Ministry may inform the project proponent to stop all ongoing constructions at the site after the validity period of the EC i.e. 2nd Nov 2020 till the time EC is granted. Details of such units shall be furnished along with current status of implementation with supporting photographs.

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ANNEXURE –1

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

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

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

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

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

6. **Environmental Status**

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

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

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

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

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

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

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

viii. Soil Characteristic as per CPCB guidelines.

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

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

xi. Socio-economic status of the study area.

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

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

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

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

iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme

of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.

v. Details of stack emission and action plan for control of emissions to meet standards.

vi. Measures for fugitive emission control

vii. Details of hazardous waste generation and their storage, utilization and disposal. Copies of MOU regarding utilization of solid and hazardous waste shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.

viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.

ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.

xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.

xii. Action plan for post-project environmental monitoring shall be submitted.

xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. **Occupational health**

i. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,

ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre-designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analysed data of abovementioned parameters as per age, sex, duration of exposure and department wise.

iii. Annual report of health status of workers with special reference to Occupational Health and Safety.

iv. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.

9. **Corporate Environment Policy**

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

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

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

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

i. All documents shall be properly indexed, page numbered.

ii. Period/date of data collection shall be clearly indicated.

iii. Authenticated English translation of all material in Regional languages shall be provided.

iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.

v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.

vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report

vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.

viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCl)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.

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

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ANNEXURE-2

ADDITIONAL ToRS FOR INTEGRATED STEEL PLANT

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

ADDITIONAL ToRS FOR PELLET PLANT

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

ADDITIONAL ToRs FOR CEMENT INDUSTRY

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

ADDITIONAL ToRs FOR PULP AND PAPER INDUSTRY

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

ADDITIONAL ToRs FOR LEATHER/SKIN/HIDE PROCESSING INDUSTRY

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

ADDITIONAL ToRs FOR COKE OVEN PLANT

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

ADDITIONAL ToRs FOR ASBESTOS MILLING AND ASBESTOS BASED PRODUCTS

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

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

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

Executive Summary

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

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

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